COMPLYING WITH RCRA HAZARDOUS WASTE REGULATIONS

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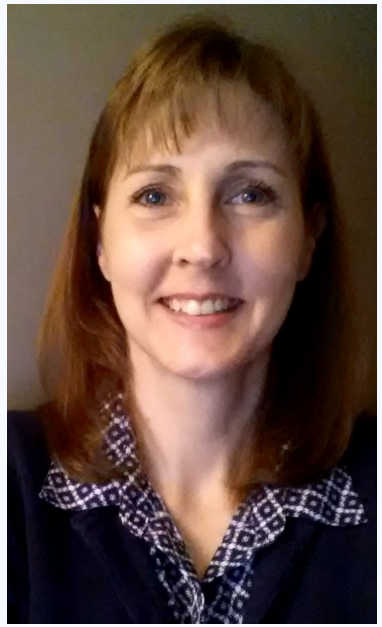
OUR TEAM FOR TODAY'S PRESENTATION



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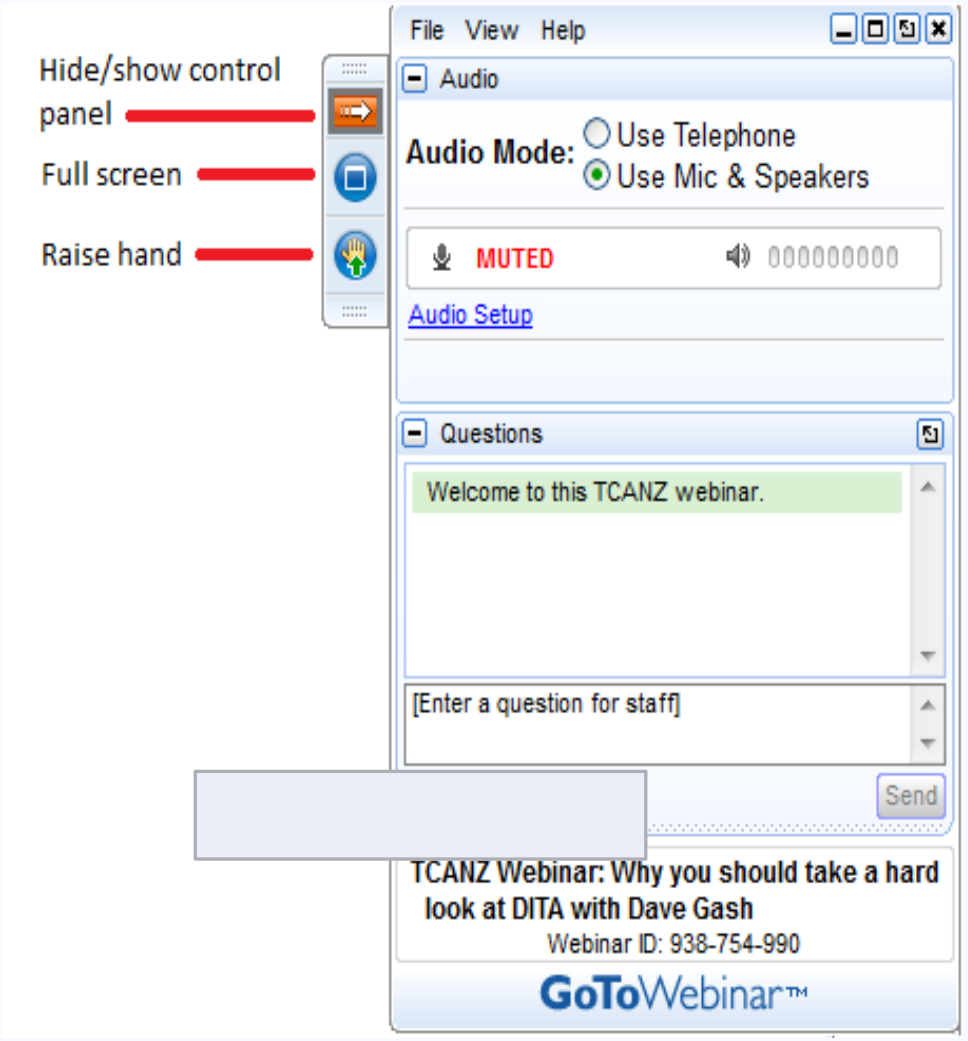
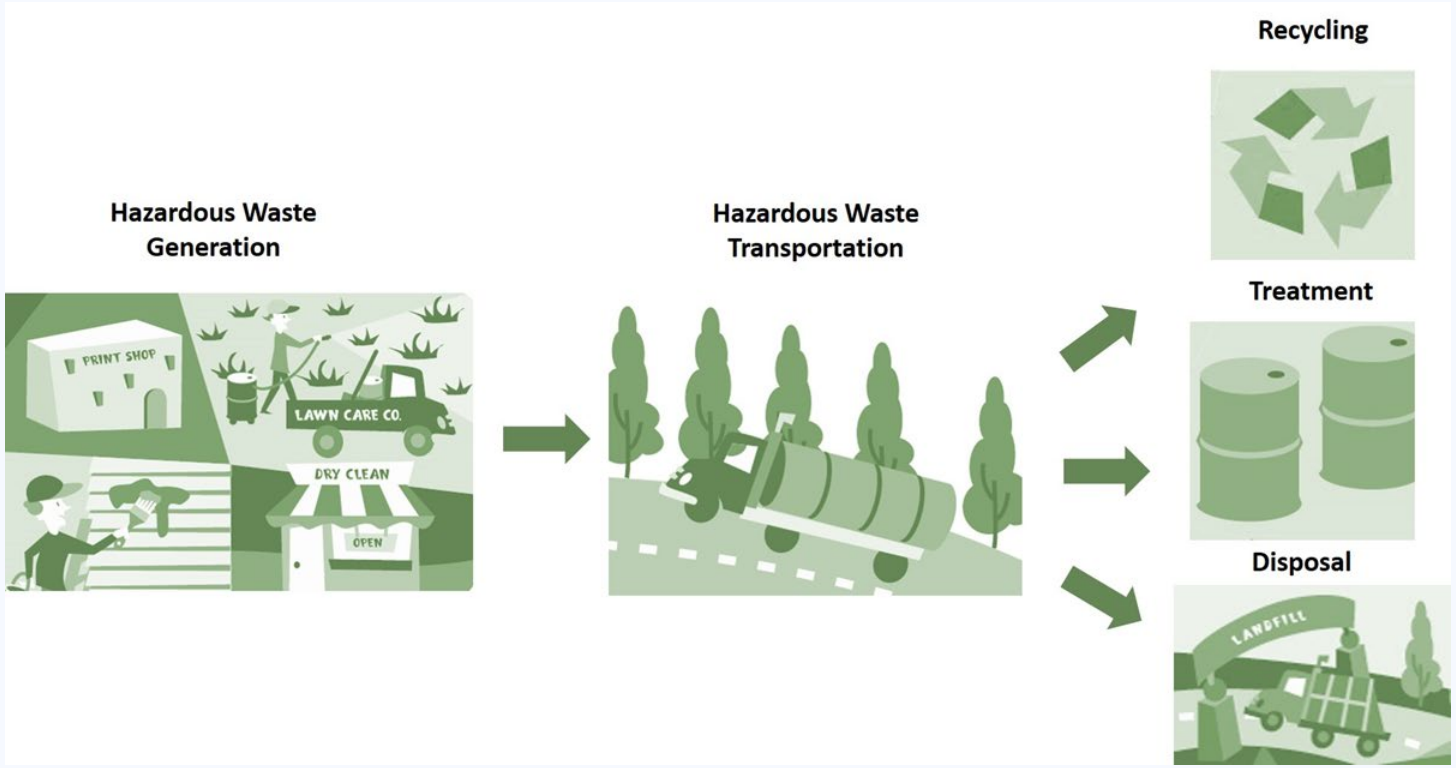
HOUSEKEEPING

- This presentation is being recorded and will be shared.
- Everyone will be muted to prevent background noise.
- Use the question button to log your question.



TODAY'S TOPIC

- EPA's Resource Conservation and Recovery Act (RCRA)



RCRA BASICS

ORIGIN AND PURPOSE OF THE RCRA PROGRAM

The Resource Conservation and Recovery Act (RCRA), an amendment to the Solid Waste Disposal Act of 1965, was enacted in 1976 to address the huge volumes of municipal and industrial waste generated in the United States.

EPA'S MISSION AND HOW THEIR MISSION IS ACCOMPLISHED

- The mission of EPA is to protect human health and the environment.
- When Congress writes an environmental law, the EPA implements it by writing regulations. Often, EPA sets national standards that states and tribes enforce through their own regulations. The EPA also enforces their regulations and helps companies understand the requirements.
- The RCRA regulations have been amended and updated more than a dozen times since 1976 (e.g. Used Oil, Land Disposal Restrictions, Universal Waste, Air Emissions Standards, Lab Waste, Pharmaceutical Waste, 2018 Revision and Reorganization, e-Manifesting, etc.).
- RCRA Regulations cover all types of waste generation, management and disposal in the United States (i.e. municipal, nonhazardous, hazardous and universal)

WHAT MATERIALS ARE COVERED AS RCRA HAZARDOUS WASTES?

Excluded

- 40CFR§261.4 lists exclusions

Listed Wastes

- F-List
- K-List
- P-List
- U-List

Characteristic Wastes

- D-List

F-LIST (261.31)

The F-List of hazardous wastes are from nonspecific sources. This list covers processes from a wide range of sectors, including the manufacturing industry, government, and schools.

The F-List has seven distinct subgroups, including:

- Spent solvent wastes (F001 – F005)
- Wastes from electroplating and other metal finishing operations (F006 – F012, and F019)
- Dioxin bearing wastes (F020 – F023 and F026 – F028)
- Wastes from 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)

K-LIST (261.32)

The K-List of wastes are those that are considered source-specific, such as petroleum refining or pesticide manufacturing wastes. Even certain wastewaters and sludges can be found on this list.

The K-List is divided into 13 different subgroups, including:

- Wood preservation (K001)
- Inorganic pigment manufacturing (K002 – K008)
- Organic chemicals manufacturing (K009 – K011, K013 – K030, K083, K085, K093 – K096, K103 – K105, K107 – K118, K136, K149 – K151, K156 – K159, K161, K174 – K175, and K181)
- Inorganic chemicals manufacturing (K071, K073, K106, and K176 – K178)

- Pesticides manufacturing (K031 – K043, K097 – K099, K123 – K126, and K131 – K132)
- Explosives manufacturing (K044 – K047)
- Petroleum refining (K048 – K052, and K169 – K172)
- Iron and steel production (K061 and K062)
- Primary aluminum production (K088)
- Secondary lead processing (K069 and K100)
- Veterinary pharmaceuticals manufacturing (K084 and K101 – K102)
- Ink formulation (K086)
- Coking (K060, K141 – K145, and K147 – K148)

P-LIST & U-LIST (261.33)

The P and U lists designate as hazardous waste pure and commercial grade formulations of certain unused chemicals that are being disposed. For a waste to be considered a P- or U-listed waste it must meeting the following three criteria:

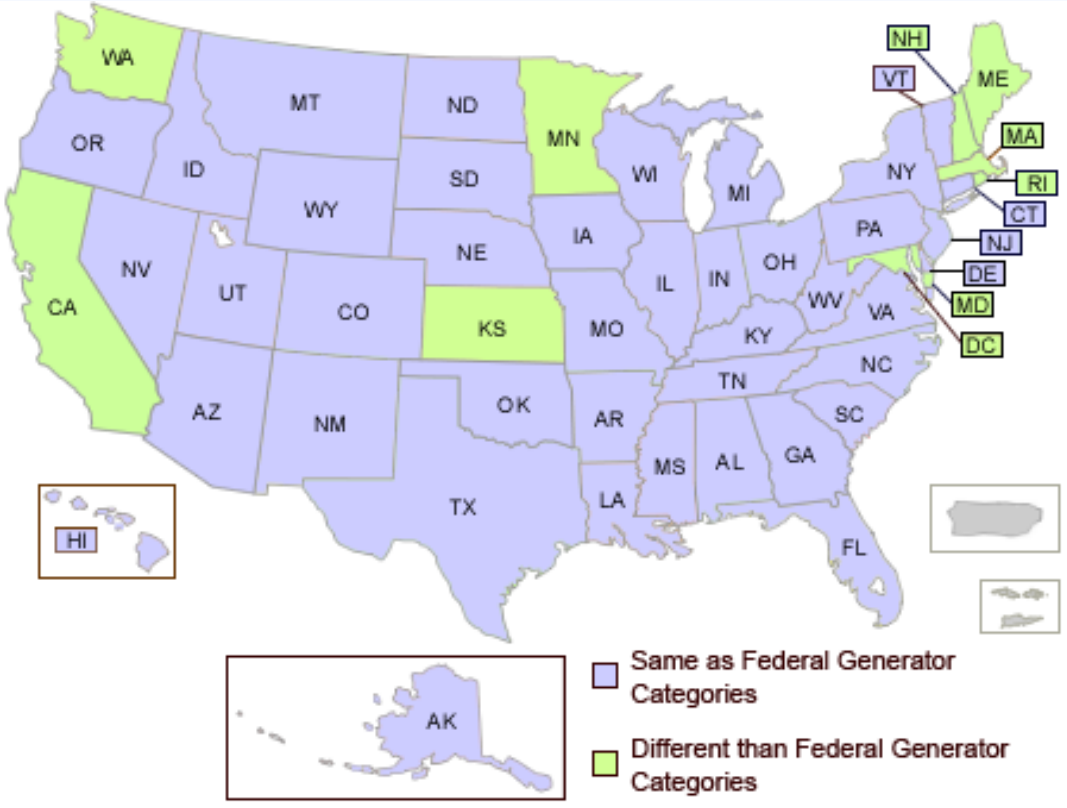
- The waste must contain one of the chemicals listed on the P or U list;
- The chemical in the waste must be unused; and
- The chemical in the waste must be in the form of a commercial chemical product.

D-LIST (261.21 TO 261.24)

- Ignitability
- Corrosivity
- Reactivity
- Toxicity

GENERATOR STATUS DETERMINATION

HAZARDOUS WASTE GENERATOR STATUS



Requirement	Very Small Quantity Generators	Small Quantity Generators	Large Quantity Generators
Quantity Limits The amount of hazardous waste generated per month determines how a generator is categorized and what regulations must be complied with.	≤100 kg/month, and ≤1 kg/month of acute hazardous waste, and ≤100 kg/month of acute spill residue or soil §260.10	>100 and <1,000 kg/month §260.10	≥1,000 kg/month, or >1 kg/month of acute hazardous waste, or >100 kg/month of acute spill residue or soil §260.10

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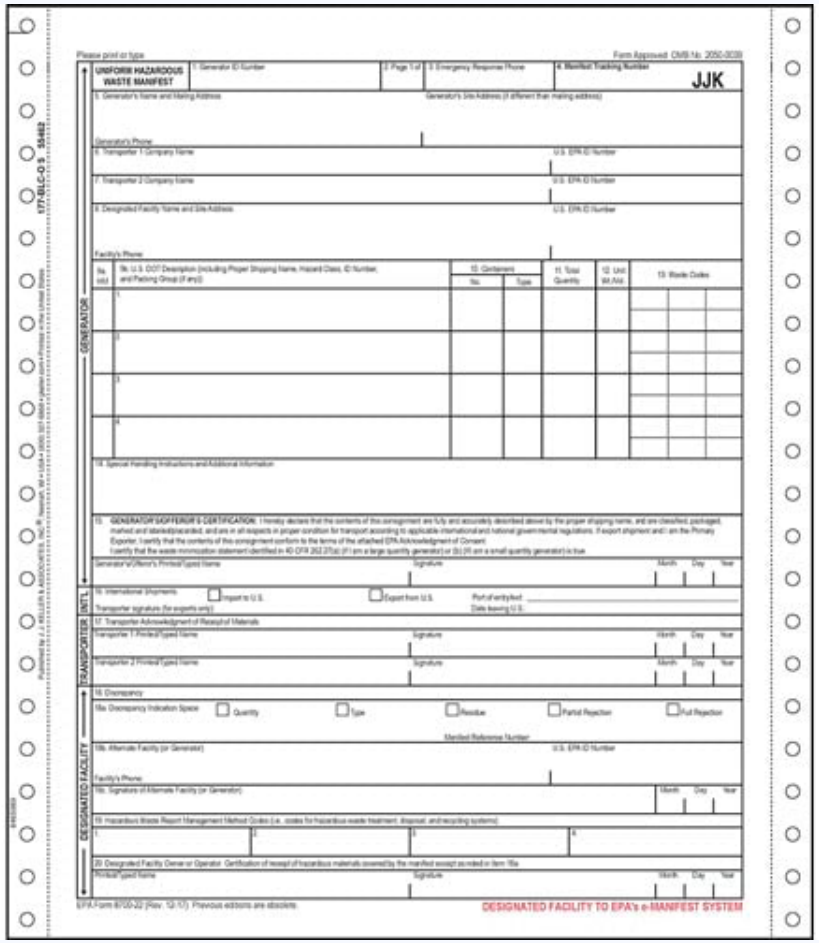
INFORMATION NEEDED TO MAKE A DETERMINATION

Hazardous waste manifests



HOW TO COMPLETE THE DETERMINATION

Hazardous Waste Shipments					
Date	Shipped			Generated Pounds	Generator Status
	Gallons	SG	Pounds		
October, 10, 2021	336	1.02	2858.28	951.6	SQG
November-21				1091.7	SQG
December-21				1091.7	SQG
January 25, 2022	385	1.02	3275.12	1091.7	SQG
February-22				1247.7	SQG
March-22				1247.7	SQG
April 17, 2022	440	1.02	3742.99	1247.7	SQG
May-22				1403.6	SQG
June-22				1403.6	SQG
July 11, 2022	495	1.02	4210.9	1403.6	SQG
August-22				1520.6	SQG
September-22				1520.6	SQG
October-22				1520.6	SQG
November 14, 2022	715	1.02	6082.36	1520.6	SQG

LQG
Generate ≥ 2200 lbs/month or > 2.2 lbs/month of P Listed Hazardous Waste

SQG
Generate > 220 lbs/month but < 2200 lbs/month

VSQG
Generate ≤ 220 lbs/month or ≤ 2.2 lbs/month of P Listed Hazardous Waste

HELPFUL WEBSITES FOR EXISTING FACILITY INFORMATION

ECHO Enforcement and Compliance History Online

https://echo.epa.gov/

RCRA Info

https://rcrainfo.epa.gov/rcrainfoprod/action/secured/login

GENERATOR REQUIREMENTS

WASTE PROFILES

In accordance with **40 CFR 261.10 Criteria for identifying the characteristics of hazardous waste,**

(a) The Administrator shall identify and define a characteristic of hazardous waste in subpart C only upon determining that:

(1) A solid waste that exhibits the characteristic may:

(i) Cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or

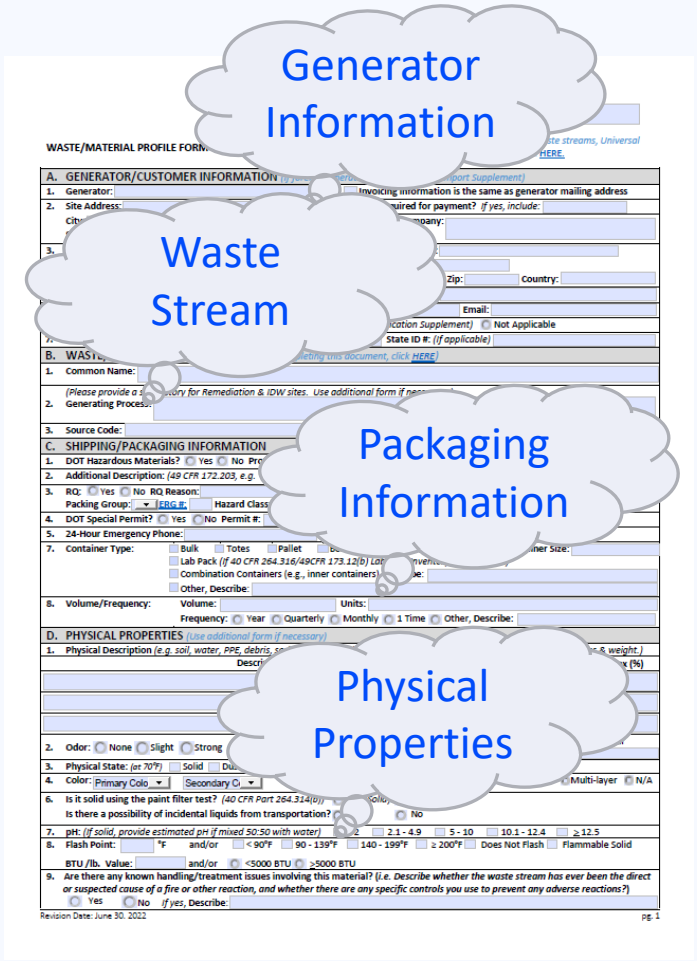
(ii) Pose a substantial present or potential hazard to human health or the environment when it is improperly treated, stored, transported, disposed of or otherwise managed; and

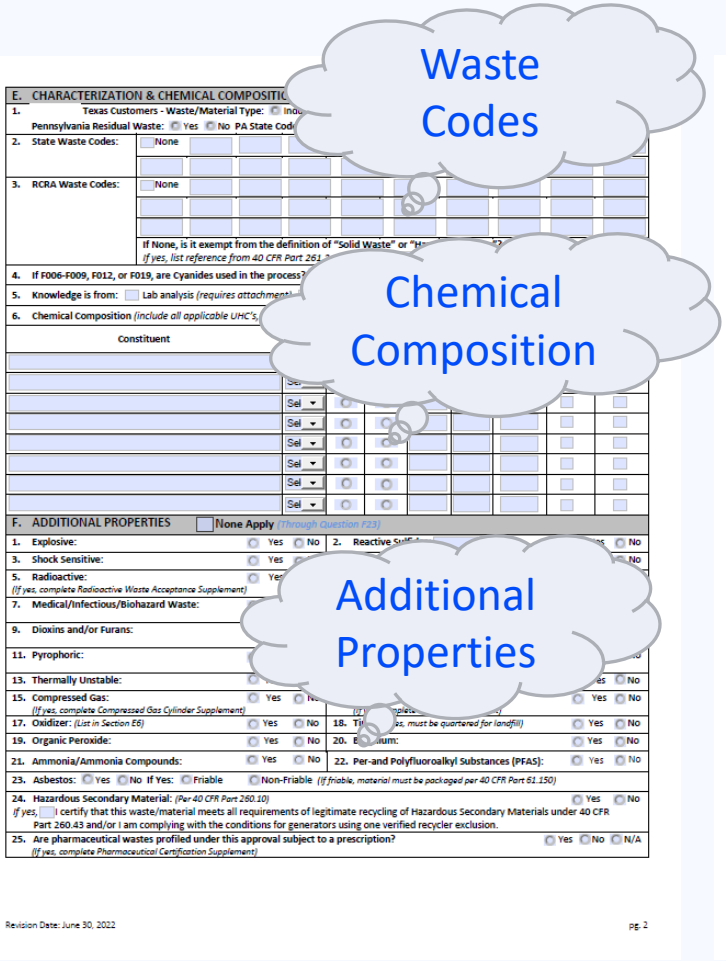
(2) The characteristic can be:

(i) Measured by an available standardized test method which is reasonably within the capability of generators of solid waste or private sector laboratories that are available to serve generators of solid waste; or

(ii) Reasonably detected by generators of solid waste through their knowledge of their waste.

COMPLETING WASTE PROFILES





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ACCUMULATION LIMITS

Requirement	Very Small Quantity Generators	Small Quantity Generators	Large Quantity Generators
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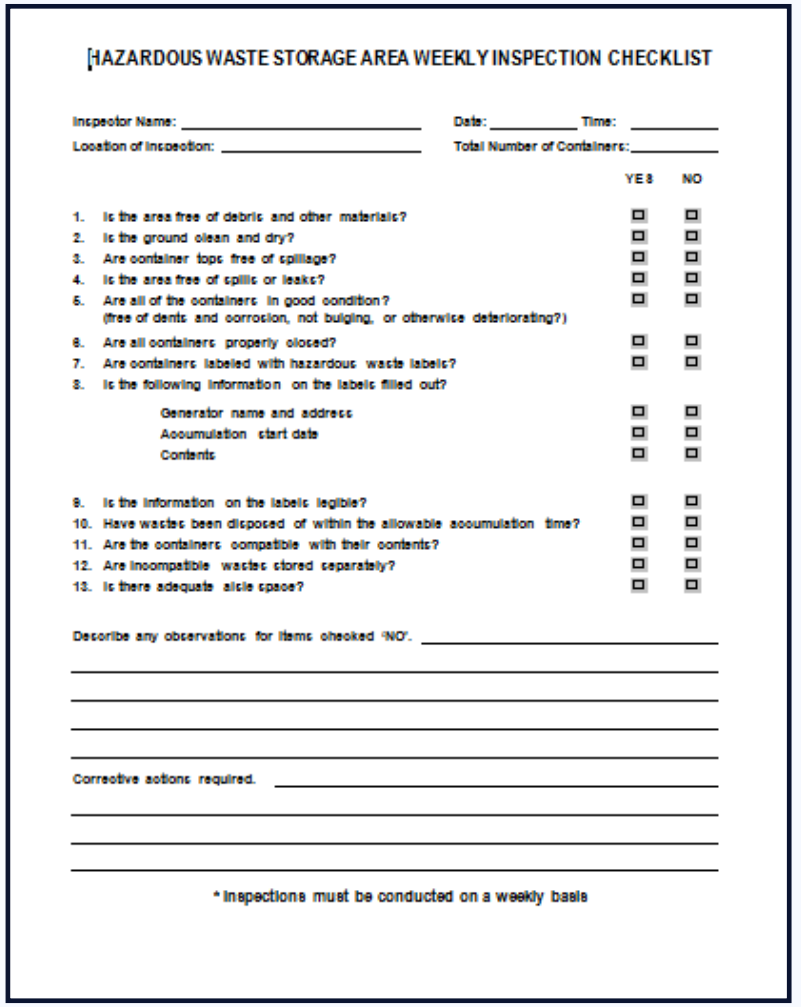
CONTAINER MAINTENANCE

The containers must be:

- Closed when not in use
- Suitable for waste collection
- Free of original product labeling (for reused containers)
- Marked with the words “Hazardous Waste”
- Have contents identified in common words
- Labeled to identify hazards of contents
- Marked with accumulation start date dependent on accumulation in satellite or storage area
- Removed from the satellite area within 3 calendar days of becoming full and placed in accumulation area

INSPECTIONS

- Weekly Inspections of Hazardous Waste Storage Areas
- Daily Inspections of Hazardous Waste Storage Tanks
- Maintain Inspection Documents for 3 years



HAZARDOUS WASTE STORAGE AREA WEEKLY INSPECTION CHECKLIST

Inspector Name: _____ Date: _____ Time: _____

Location of Inspection: _____ Total Number of Containers: _____

	YES	NO
1. Is the area free of debris and other materials?	☐	☐
2. Is the ground clean and dry?	☐	☐
3. Are container tops free of spillage?	☐	☐
4. Is the area free of spills or leaks?	☐	☐
5. Are all of the containers in good condition? (free of dents and corrosion, not bulging, or otherwise deteriorating?)	☐	☐
6. Are all containers properly closed?	☐	☐
7. Are containers labeled with hazardous waste labels?	☐	☐
8. Is the following information on the labels filled out?		
Generator name and address	☐	☐
Accumulation start date	☐	☐
Contents	☐	☐
9. Is the information on the labels legible?	☐	☐
10. Have wastes been disposed of within the allowable accumulation time?	☐	☐
11. Are the containers compatible with their contents?	☐	☐
12. Are incompatible wastes stored separately?	☐	☐
13. Is there adequate aisle space?	☐	☐

Describe any observations for items checked 'NO'. _____

_____

_____

_____

_____

Corrective actions required. _____

_____

_____

_____

* Inspections must be conducted on a weekly basis

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DOCUMENTATION AND RETENTION

- Waste Analyses and Determinations
  - Retain for 3 years
- Manifests
  - Retain terminated copies for 3 years for the date waste was offered for transport
- Land Disposal Restriction Notification Forms (LDR)
  - Retain for 3 years
  - Verifies the hazardous waste that is being disposed of and that the correct disposal facility is identified.
  - Identifies hazardous waste that is restricted for land disposal
- Written Job Descriptions for Positions that Handle Hazardous Waste

TRAINING

- Familiarize employees with emergency procedures, emergency equipment and emergency systems including
- Required within 6 months of employment or assignment to position
- Training must recur annually and be documented

REPORTING

- Exception Reporting
  - Must be submitted to the EPA Regional Administrator by LQGs that do not receive a signed and dated copy of the manifest from the destination facility within 45 days from the date the initial transporter accepted the waste. The exception report must describe efforts made to locate and results of those efforts.
  - Must be submitted to the EPA Regional Administrator by SQGs that do not receive a signed and dated copy of the manifest from the destination facility within 60 days from the date the initial transporter accepted the waste. The exception report must describe efforts made to locate and results of those efforts.
  - **Some Destination Facilities are no longer mailing terminated copies to generators**

Biennial Reports (Federal Requirement for LQGs)

- Due March 1 of each even numbered year for materials shipped in the previous year
- Required for each hazardous waste stream
- Retain for 3 years
- Some states require reporting more frequently

STATES WITH ANNUAL REPORTING REQUIREMENTS

State	Affects	Type of Report	Submittal Date
Arizona	LQGs, TSDFs	Annual Report	March 1
Arkansas	SQGs, LQGs, TSDFs	Annual Report	March 1
California	TSDFs	Annual Report	March 1
Delaware	LQGs, TSDFs	Annual Report	March 1
Idaho	SQGs, LQGs, TSDFs	Annual Report	January 31
Illinois	LQGs, TSDFs	Annual Report	March 1
Indiana	SQGs, LQGs, TSDFs	Annual Manifest Report	March 1
Kansas	KSQGs, SQGs	Annual Report	April 1
	LQGs	Annual Report	March 1
Kentucky	SQGs, LQGs, TSDFs	Annual Report	March 1
Louisiana	LQGs, TSDFs	Annual Report	March 1
Maine	LQGs, TSDFs	Annual Report	March 1
Michigan	LQGs, TSDFs	Annual Report	March 1
	TSDFs	Quarterly Report	Within 10 days after the end of March, June, September, and December of each year
Minnesota	SQGs, LQGs, TSDFs	Annual Report	March 1
Mississippi	SQGs, LQGs, TSDFs, Transporters	Annual Report	March 1
Missouri	SQGs, LQGs	Annual Summary Report (reporting period is July 1 to June 30)	August 14 for SQGs; August 14 if LQG files electronic report
	LQGs	Quarterly Summary Report	LQGs that don't file an Annual Summary Report electronically must file a Quarterly Summary Report within 45 days after the end of each reporting period (4 calendar quarters)

STATES WITH ANNUAL REPORTING REQUIREMENTS

Montana	SQGs, LQGs, TSDFs	Annual Report	March 1
New Hampshire	TSDFs	Annual Report	April 1
		Quarterly Report	Within 10 days from receiving the form from DES
New York	LQGs, TSDFs	Annual Report	March 1
Oklahoma	LQGs	Quarterly Report	Within 60 days after each quarter
	TSDFs	Monthly Report	Within 30 days after each month
Oregon	SQGs, LQGs, TSDFs	Annual Report	March 1
South Carolina	LQGs, TSDFs	Quarterly Report	Within 30 days after each quarter
Tennessee	SQGs, LQGs, TSDFs	Annual Report	March 1
Texas	SQGs, LQGs	Annual Waste Summary	January 25 for paper filings; March 1 for electronic filings
	TSDFs	Monthly Waste Recycling Summary	By the 25th day following the month covered in the report
Washington	SQGs, medium quantity generators (MQGs), LQGs, transporters, TSDFs, recycling facilities	Annual Report	March 1
Wisconsin	SQGs, LQGs, TSDFs	Annual Report	March 1

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RENOTIFICATION

40 CFR 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.

(2) A large quantity generator must re-notify EPA by March 1 of each even-numbered year thereafter using EPA Form 8700-12. A large quantity generator may submit this re-notification as part of its Biennial Report required under § 262.41.

SOURCE REDUCTION STRATEGIES

40 CFR 262.27 Waste minimization certification.

A generator who initiates a shipment of hazardous waste must certify to one of the following statements in Item 15 of the uniform hazardous waste manifest:

(a) “I am a large quantity generator. I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment;” or

(b) “I am a small quantity generator. I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.”

CONTINGENCY PLANNING

- Facilities must be maintained and operated to minimize the possibility of:
  - Fire
  - Explosion
  - Any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to:
    - Air
    - Soil
    - Surface water

CONTINGENCY PLANNING

- Describe the actions facility personnel must take to respond to emergencies
- List names and phone numbers of all persons qualified to act as emergency coordinator
- Include list of all emergency equipment at the facility
- Include an evacuation plan

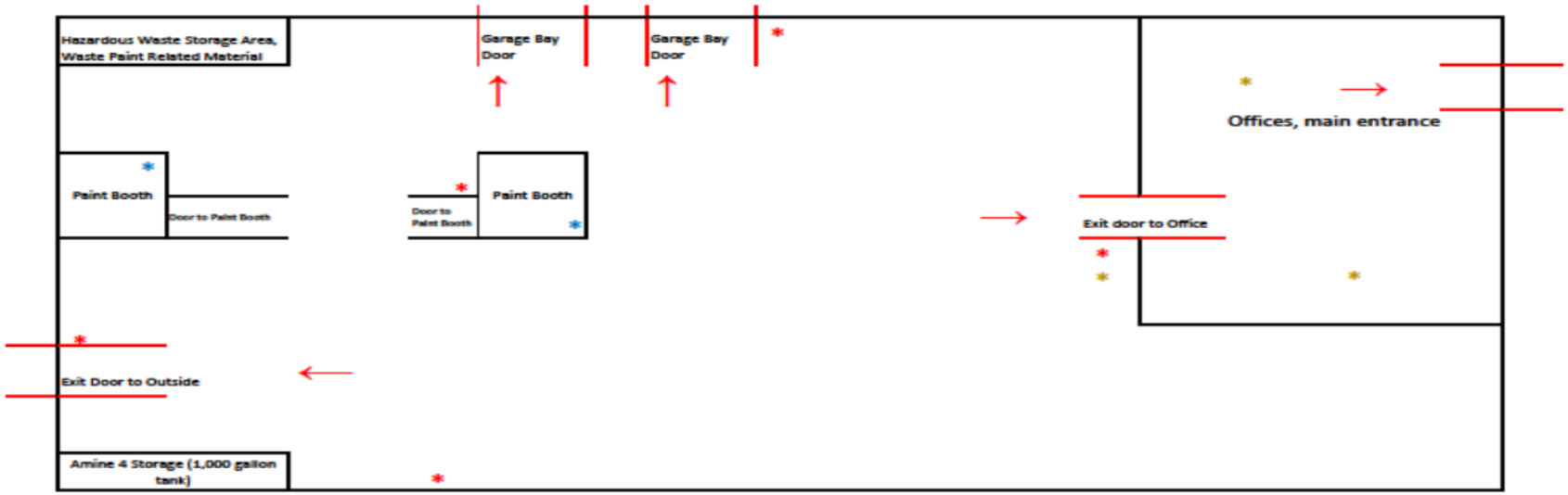
CONTINGENCY PLANNING FOR LQGs

- Requires new LQGs submitting contingency plans to also include a Quick Reference Guide (described as an Executive Summary in proposed rule) that contains information most critical for immediate response to an event
- Requires existing LQGs to include a Quick Reference Guide when they otherwise update their contingency plan

CONTINGENCY PLANNING FOR LQGs

- 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

QUICK REFERENCE GUIDE EXAMPLE



* Satellite Accumulation Area for Paint Related Waste Material (D001, F003, F005)
* Fire Alarms (ring on-site only, there are no fire alarms that notify off-site personnel)
* Telephone for off-site notification of emergency

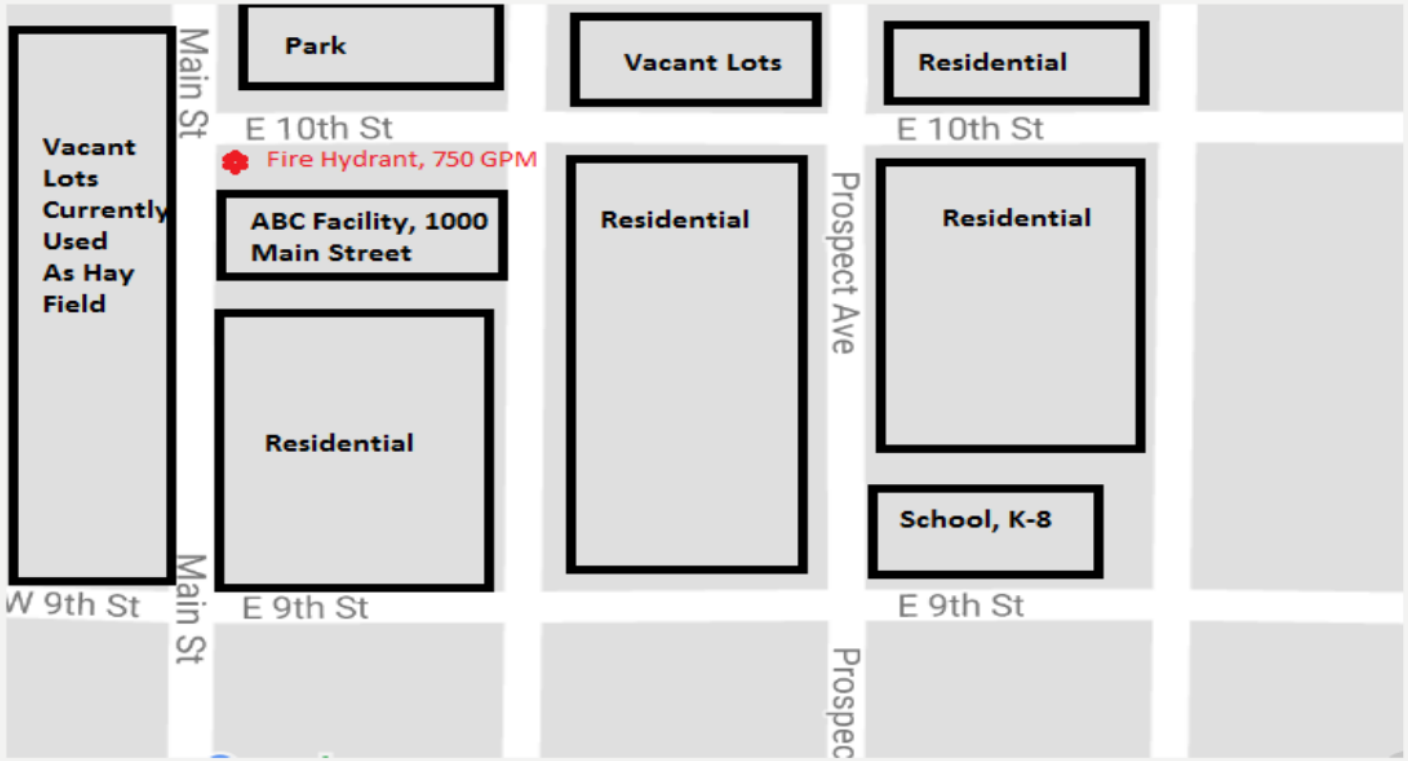
→ Indicates evacuation route out of the building.

Note 1: Hazardous waste (paint related waste) is generated and accumulated inside each of the two paint booths, and is accumulated in the hazardous waste storage area. Amine 4 can be a hazardous waste if it is off-specification and it is generated and accumulated in the SW corner at the Amine 4 tank.

Note 2: Smoke detectors are located throughout the office and main warehouse on the ceiling, in a grid about every 25 feet. Smoke detectors are connected to an automatice sprinkler system.

QUICK REFERENCE GUIDE EXAMPLE

Street Map



CONTINGENCY PLANNING FOR LQGs

- Contents of the Quick Reference Guide (eight elements)
  - 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 24/7 emergency telephone number(s)
- EPA encourages generators to work with local emergency authorities and others to identify additional information that could be included.

CONTINGENCY PLANNING

- Maintain copy at the facility
- Submit copy to all agencies that may be called upon to provide emergency services (police, fire, hospitals, etc.)
  - Have proof that you shared your contingency plan with emergency services (mail receipt, delivery confirmation, etc.)
  - Include the following statements in the plan cover letter:
    - According to EPA regulations, the facility is required to send a copy of the facility plan to first responders.
    - By accepting receipt of the plan the facility will consider this willingness of your department/facility to respond to and assist the facility in an emergency situation.

QUESTIONS?

THANK YOU FOR JOINING US.

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15 minute consultation.

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