

Compliance Assistance Presentation for Federal Labs: Common RCRA Subtitle C Violations

Federal Facilities Enforcement Office
Office of Enforcement and Compliance Assurance



Disclaimer



GUIDANCE, NOT LEGAL ADVICE



THIS PRESENTATION DOES NOT SATISFY
YOUR REQUIREMENTS UNDER RCRA
FOR ANNUAL TRAINING



THIS PRESENTATION COVERS GENERAL
TIPS TO AVOID COMMONLY SEEN
VIOLATIONS

Topics

1. RCRA Overview
2. Common issues and how to avoid them
3. Field Examples
4. Knowledge Check
5. Q & A

RCRA – Subtitle C: Hazardous Waste

40 CFR:

- Part 261 – procedures for identifying hazardous wastes
- Part 262 – standards applicable to hazardous waste generators
- Part 273 – managing universal wastes
- Part 279 – management of used oil

Important: Some states have more stringent rules; those rules DO apply to federal facilities including Federal Labs. All states except for IA and AK have primary enforcement authority for RCRA

Topics

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2. Common issues and how to avoid them
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Common Issues
Reviewed in
this
Presentation

Generator status

Preparation for inspections

Records management

Contingency Plan

Training

Hazardous waste determinations

Waste pending analysis

Treatment without a permit

Containers and labeling

Incompatible wastes and containers

Waste accumulation and storage

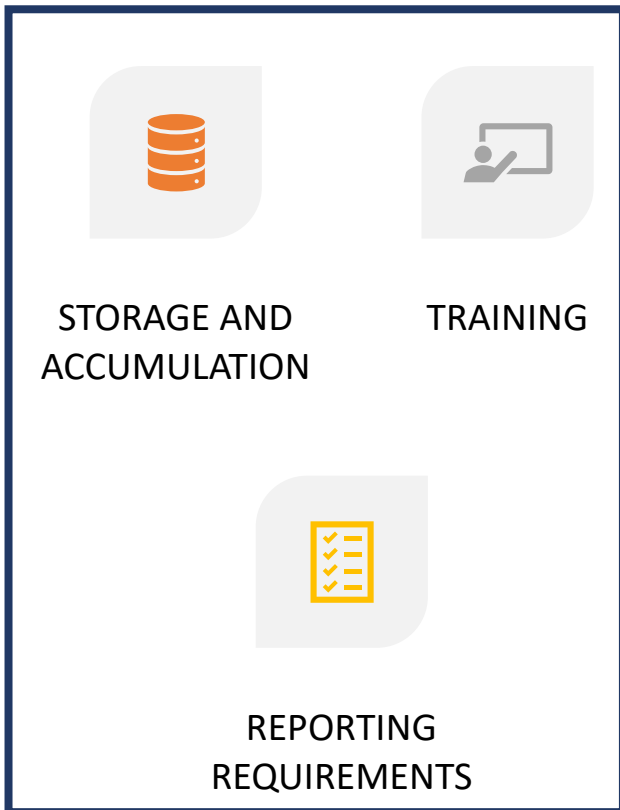
Improper disposal

Weekly inspections

Used oil and universal waste

Generator Status

Know your status: VSQG/SGQ/LQG



| Requirement | Large Quantity Generator | Small Quantity Generator |
|---------------------------------|---|--|
| Monthly HW generation rate | ≥1,000 kg/month nonacute wastes >1 kg/month acute wastes | >100 but <1,000 kg/month nonacute waste ≤ 1 kg/month acute wastes |
| Accumulation time limit | 90 days | 180 days |
| Accumulation quantity limit | No limit | 6,000 kg nonacute wastes; 1 kg acute waste |
| Personnel training requirements | Yes | Yes – less stringent than LQG |
| Biennial reporting | Yes | No |
| Contingency plan | Yes | No, but comply with 262.16(b)(8-9) |

Preparation for Inspections



Access



**Opening
Conference**



Site review

Interview process
Waste generation
and storage areas
Sampling
Photos



Records review



**Exit
interview/Closing
Conference**

Records Review

Required Records



Manifests, Land Disposal Records, Exception Reports (3 years)



Waste determination records, analyticals, analysis plans (3 years)



Inspection records (3 years)



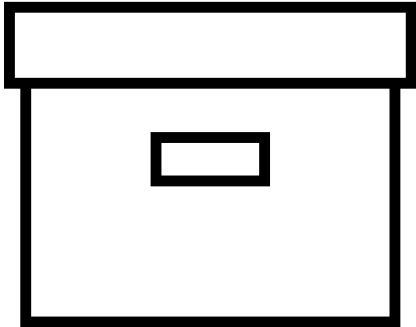
Biennial reports (LQG only)



Contingency Plan, Quick Reference Guide (LQG only)

Records Review, continued

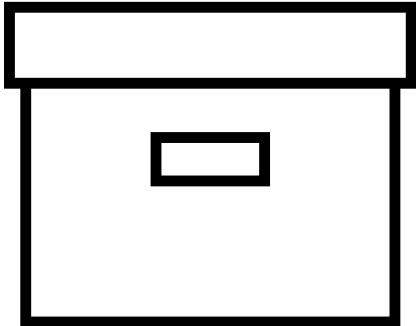
Manifests & Land Disposal Restrictions (LDRs)



- Avoid missing or incomplete information
 - Check waste codes, dates, ID #s, container counts, quantities, signatures
- Use the right unit of measure for waste (gallons, pounds)
- Keep 3 years of signed copies
- File Exception Reports within 45 days
- Preprinted forms are often incorrect if wastes are not struck out

Records Review, continued

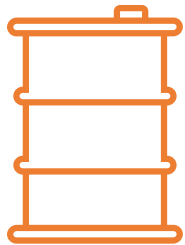
Contingency Plan



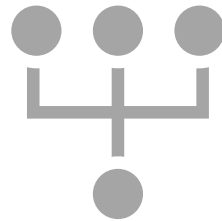
- Obtain, test, and maintain emergency equipment; identify their locations
- Have a list of generated haz waste, storage locations, and hazards
- Update the plan when there are changes to contacts, wastes, and mutual aid agreements; review regularly
- Have a quick reference guide (LQGs)

Records Review, continued

Best Management Practices



Annual waste summaries



Position description and responsibilities; training records



Waste Minimization Plan

Training

- Train within six months and annual refresher
- Keep records for current and former employees (training dates, job title and description)
- At minimum, “thoroughly familiar” training covers:
 - Waste identification
 - Manifest requirements
 - Accumulation time limits
 - Container management
 - Container labeling
 - Emergency procedures

Common Waste Determination Violations



MISCLASSIFICATION AS
NON-HAZARDOUS



FAILING TO MAKE A WASTE
DETERMINATION AT THE POINT OF
GENERATION



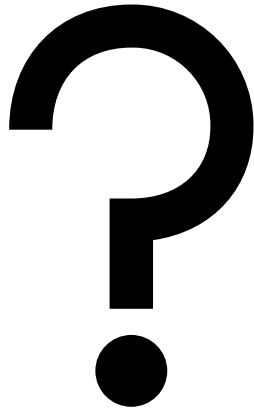
RELYING ON GENERATOR KNOWLEDGE;
FAILING TO DOCUMENT
DETERMINATION

Hazardous Waste Determinations

Listed and/or Characteristic

- F-list - process wastes, nonspecific sources (F001-F039)
- K-list - process wastes, specific sources (K001-K178)
- U-list - unused, toxic chemicals (U001-U411)
- **P-list - unused, acutely hazardous chemicals (P001-P205)**
- Characteristic Wastes - ignitable, corrosive, reactive, toxic (D001-D043)

Hazardous Waste Determinations, continued



- Make determinations at the point of generation
 - RCRA C and/or state listed waste
 - Acceptable knowledge (process knowledge, SDS, waste comp)
 - Test results
- Keep determinations on file
- Keep determinations updated
- Cover all phases of the waste
- Apply all applicable waste codes

Waste Pending Analysis

Must manage as HW at the point of generation

- Label as “Hazardous waste pending analysis”
- Label with potential hazard of contents
- Date of accumulation if in a CAA

If the waste is tested and is determined not to be HW, remove the HW labeling at that time

The hazardous waste generator regulations in 40 CFR part 262 apply as soon as waste is generated, and the accumulation period applies either as soon as the waste is generated or when waste is removed from the satellite accumulation area (Memo, Lowrance to Axtell; April 21, 1989 ([RCRA Online #11424](#) (2 pp, 34 K)). If a generator is unsure if the waste being tested is a hazardous waste, the generator must manage it as hazardous waste and label the containers with the potential hazard of the contents (e.g., ignitable, toxic, reactive, corrosive), the words “hazardous waste” (they could also use “hazardous waste pending analysis” to make it clear that testing is not yet complete), and the date upon which accumulation began.

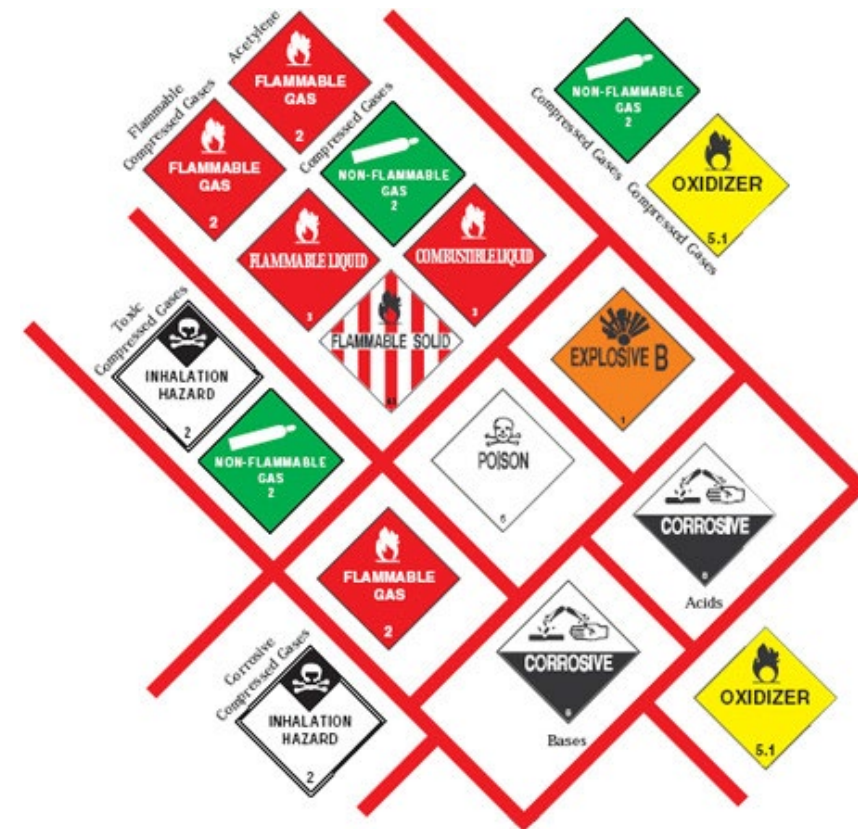
Treatment

- Generally, facilities should not treat waste without a permit
 - There are a few exceptions
- States may have more stringent standards!



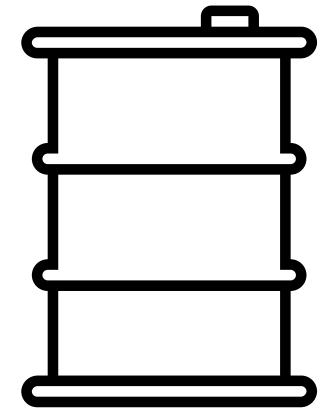
Incompatibility

- Segregate incompatible wastes into separate areas
- Make sure the container cannot be impaired by the waste
- Be careful when reusing containers that previously held incompatible wastes
- When reusing containers, use similar waste to avoid rinsing. If containers are rinsed, be sure to collect the rinse water for proper disposal
- Use a funnel to prevent spills and do not use the same funnel for different waste streams



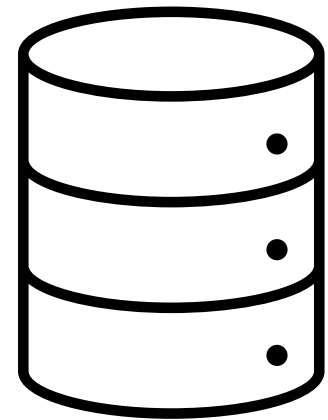
Waste Accumulation & Storage Satellite Accumulation Areas (SAAs)

- Must be in a “container”
- Under control of operator at or near point of generation
- Can have more than one SAA in a lab
- Up to 55 gallons non-acute for each waste stream (or 1qt acute), THEN date and move to central storage or TSDF
- Containers closed and in good condition; not leaking
- Arranged to accommodate storage of chemically incompatible wastes
- Labeled
- Do not move wastes from one SAA to another



Waste Accumulation & Storage Central Accumulation Areas (CAAs)

- Closed containers in good condition
- Beginning accumulation dates on containers
- Liquid stored on impervious surfaces
- Maintain aisle space to inspect
- Maintain spill and response equipment
- Weekly inspections
- Ship off-site within 90/**180**/270/365 days as appropriate (know your generator status)
- Post “No Smoking” signs



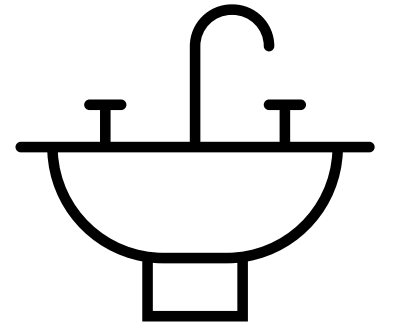
Waste Containers

- Use correct container for the waste
- Closed, tight seals
- Use a funnel and secondary containment
- Identify terminal waste containers
- Use tags or markers to label containers



Improper Disposal

- RCRA-regulated wastes should not be disposed in:
 - Sinks
 - Floor drains
 - Outdoors
 - Trash cans
 - Recycling bins
- Make sure to check cabinets for old, expired wastes
- Collect, accumulate, and label wastes appropriately



Labeling



Mark with the words “Hazardous Waste” and the contents



Include an indicator of the hazards (*more on next slide*)



Mark accumulation start dates at the right time

Labeling, continued

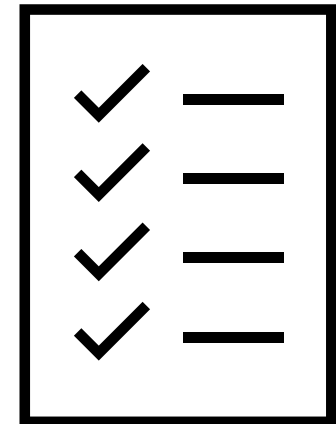
Hazard Indicators

| Requirement | Other Options | Best Management Practice (Use DOT labels) |
|---|---|---|
| <ul style="list-style-type: none"> • Ignitable • Corrosive • Reactive • Toxic | <p>DOT https://www.fmcsa.dot.gov/regulations/enforcement/nine-classes-hazardous-materials-yellow-visor-card OSHA https://www.osha.gov/sites/default/files/publications/OSHA3636.pdf NFPA https://www.nfpa.org/news-blogs-and-articles/blogs/2021/11/05/hazardous-materials-identification</p> | |

Weekly Inspections in CAAs

Checking for:

- Aisle space
 - Signs of leaks
 - Container condition, closed
 - Labeling
 - Storage and container compatibility, segregation
 - Emergency equipment and water
 - Emergency contact information
 - Communication devices
 - Accumulation time
- Use a written log (date, inspector)
 - Notate issues found and how these are resolved



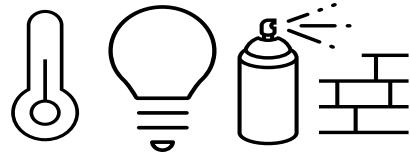
Used Oil

- Often recycled
- Ensure:
 - Containers are closed and in good condition
 - Containers are labeled as “Used Oil”
 - To manage used cleanup materials appropriately



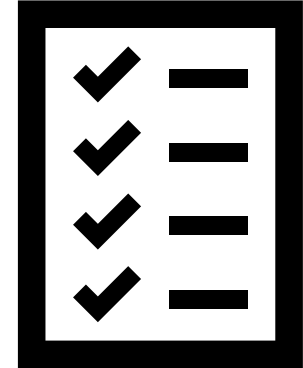
Universal Waste

- Types:
 - Batteries
 - Pesticides
 - Mercury-containing equipment
 - Aerosol cans
 - Mercury-containing lamps
 - Electronic devices
- Waste in appropriate packaging and closed
- Dated container or tracked date, < 1yr of accumulation
- Container labeled universal waste + type
- Maintain universal waste training



Other Best Management Practices

- Keep waste containers in storage or accumulation areas
- Do not move containers between generation areas
- Do not use damaged/leaking containers
- Start process to dispose of waste before container is full
- Do not mix mercury with other waste
- Put contents on the label (no acronyms or brand names)
- Ensure state requirements are not more stringent

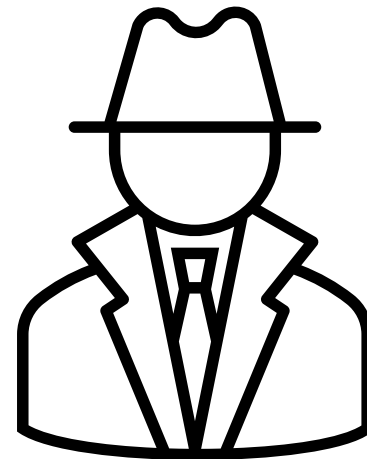


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Field Examples

You are preparing for a 2024 RCRA-C inspection. Spot the potential violations or problems in the photos in the next slides



Can you spot the issue here?

Hint: Can you see all the labels during a weekly inspection?

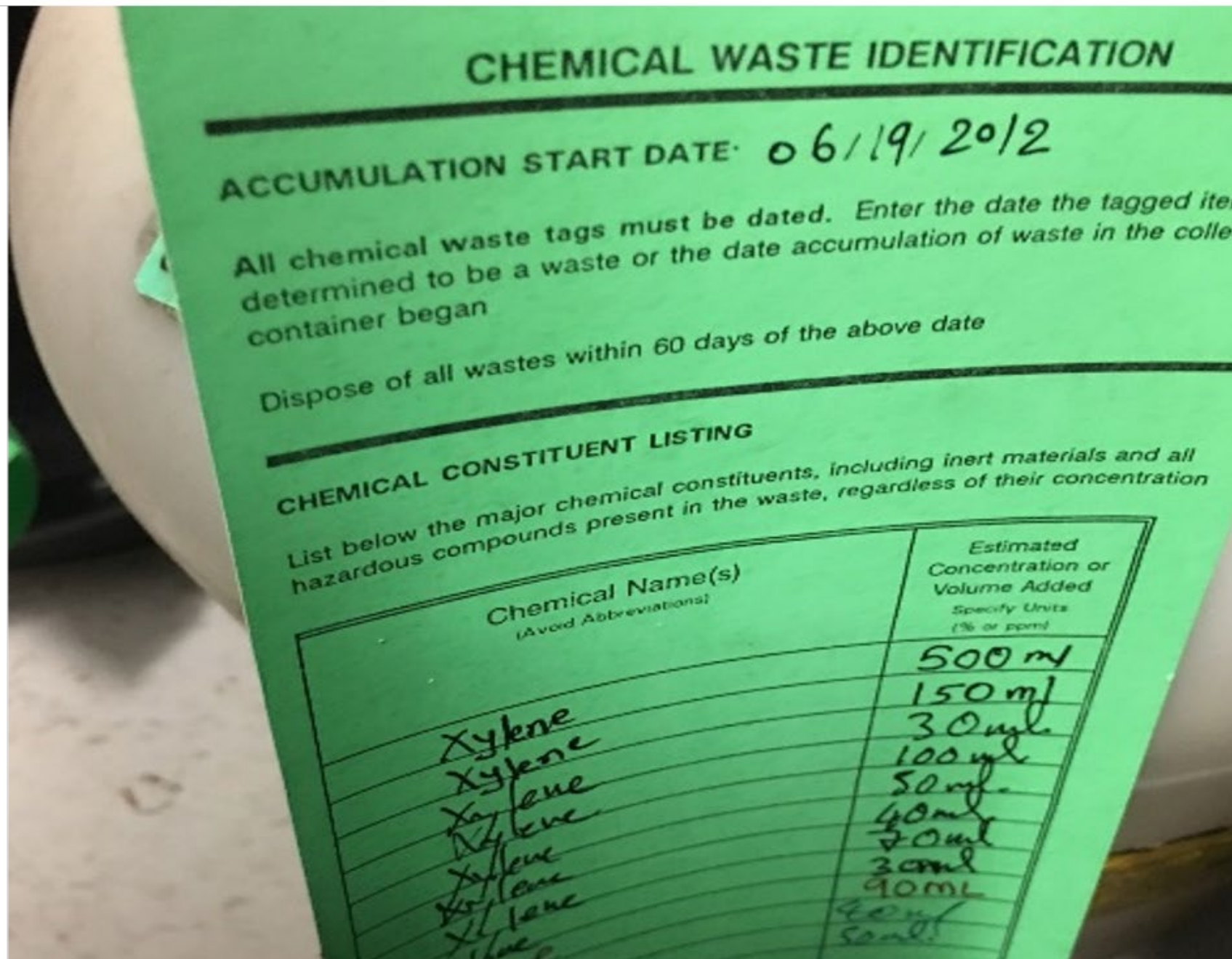
Answer: There is no aisle spacing between the containers. It would be difficult to inspect the containers and ensure no leaks and correct labeling.



Can you spot the issue here?

Hint: This label is attached to a full 55-gallon drum in a satellite accumulation area.

Answer: Old accumulation start date. Generators should not date containers until the accumulation volume is reached in an SAA. The excess accumulation is supposed to get moved three consecutive days after the container is dated if it is in a SAA. The date should be added if the container is filled in a CAA.



Can you spot the issue here?

Answer: The use of a DOT Class 9 miscellaneous dangerous goods label is not appropriate to meet this RCRA labeling standard. The regulations require that the generator mark or label the container with the words “Hazardous Waste” and give an indication of the hazards of the contents. Unlike DOT Class 1–8 labels, the DOT Class 9 miscellaneous dangerous goods label does not indicate any specific hazard associated with the waste. While this DOT Class 9 label does not meet the RCRA on-site accumulation labeling standard, it may be used when applicable to meet DOT requirements.



Can you spot the issue here?

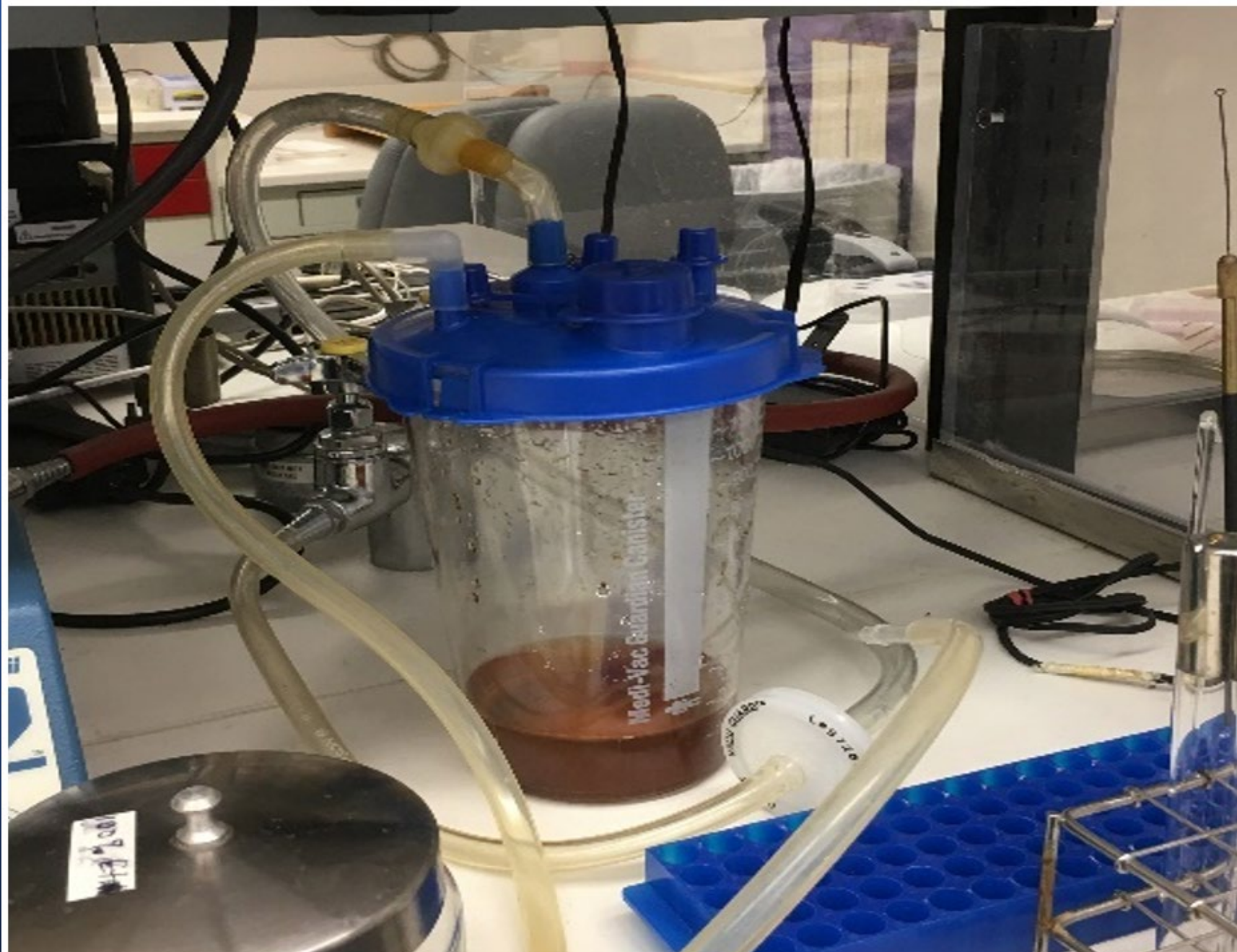
Hint: There is other waste under this device.

Answer: This would not be a violation. However, it is best not to mix mercury with other waste. The entire container will be considered mercury waste and will be more expensive to dispose.



Can you spot the issue here?

Answer: The terminal waste container is not labeled. If the lab staff regularly empties the contents into another SAA container that is labeled appropriately, this container does not need to be labeled.



Can you spot the issue here?

Hint: This is waste in trashcan.

Answer: There is flammable waste in a trash. It is more than likely that if you check the SDS for this waste, it is RCRA-ignitable.



Can you spot the issue here?

Hint: The only indicators on the label are D001, D002, D005, D008, F001, D011

Answer: There is no waste indicator on the label or container. EPA waste codes are not sufficient to convey what the waste hazard is



Can you spot
the issue
here?

Hint: This is a universal
waste collection area.
Look at the top boxes.

Answer: The boxes are
open and the lamps can
fall out and break.



Can you spot
the issue
here?

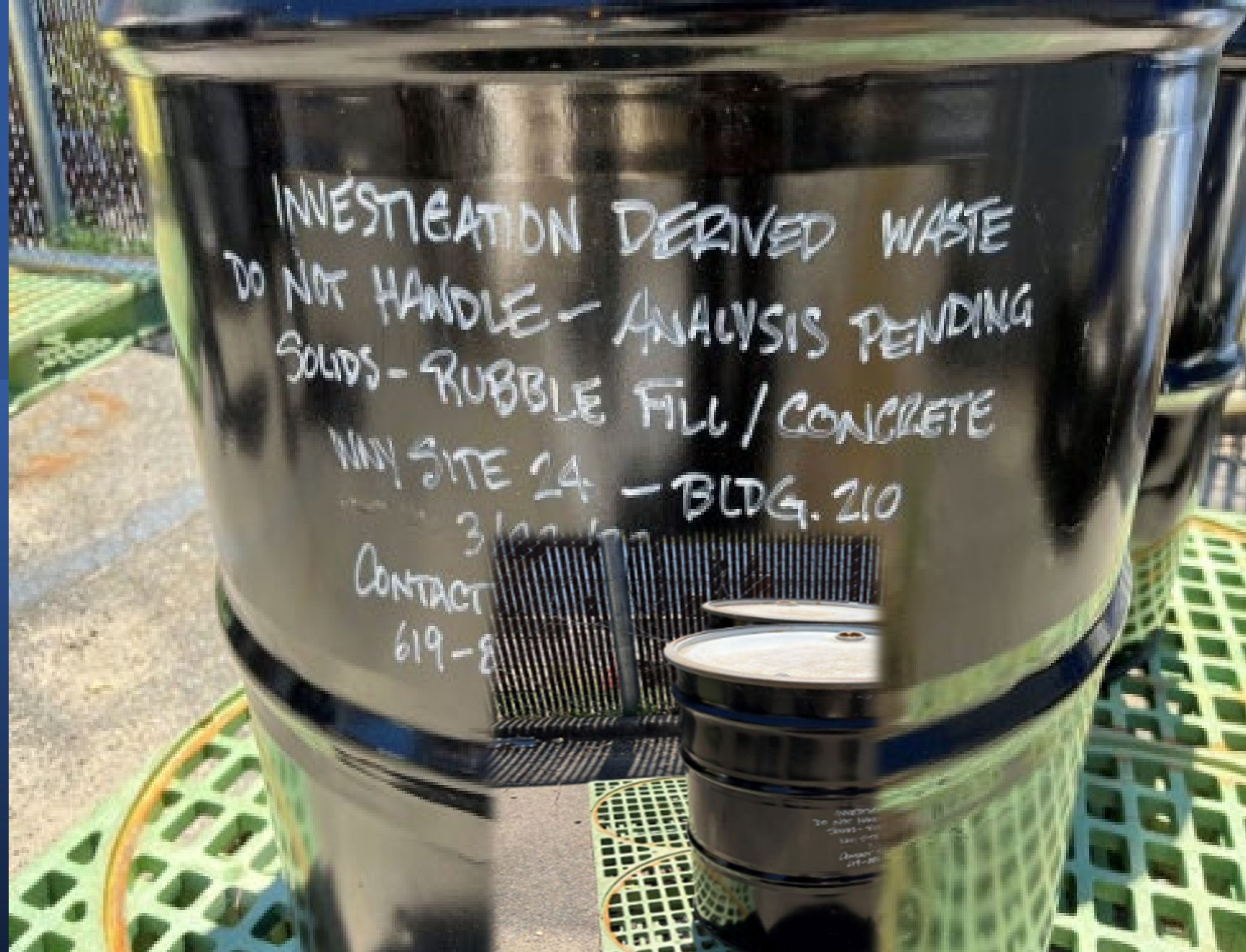
Answer: The lid on the
right drum is open. If you
use funnels, remove the
funnel to close the
container, or ensure the
top to the funnel closes
after use.



Can you spot the issue here?

Hint: This is a drum of waste pending analysis at a CAA.

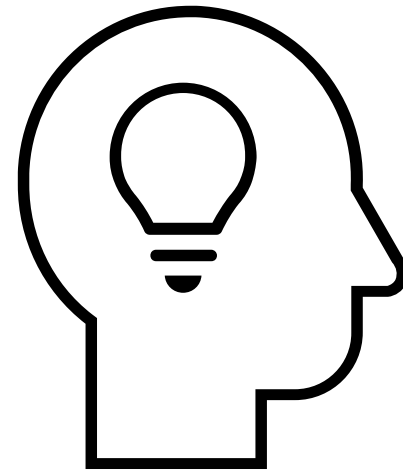
Answer: The container is not being managed as potentially hazardous while testing. Should have the words "Haz waste", a possible indicator of the hazards, and an accumulation date. If the test comes back that this drum was hazardous, the generator could be fined for the amount of time the drum sat without being properly managed (i.e, labeled correctly).



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Knowledge Check



What pieces of information must go on a HW container?



- The words “hazardous waste”, the contents
- An indication of the hazards of the contents
- Accumulation start date (if it exceeds the SAA limit or is put in the CAA)

When does the accumulation start date go on the container label?



- When SAA container is placed in CAA
- When SAA container exceeds limits
- When a container starts being filled in a CAA



What is the waste accumulation limit in SAAs?

- 55 gallons of non-acute HW
- 1 quart/1kg of acute HW

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Questions?



Federal Facilities Enforcement Office (FFEO) RCRA-C SMEs

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Resources

- Code of Federal Regulations Online
<https://www.ecfr.gov/current/title-40/chapter-1/subchapter-1>
- FAQs about HW Generation
<https://www.epa.gov/hwgenerators/frequent-questions-about-hazardous-waste-generation>
- RCRAInfo FAQs
<https://rcrapublic.epa.gov/rcrainfoweb/action/modules/main/faq/view>
- FAQs about Implementing the HW Generator Improvements Final Rule
<https://www.epa.gov/hwgenerators/frequent-questions-about-implementing-hazardous-waste-generator-improvements-final>