

**Goddard Space Flight Center (GSFC)  
Greenbelt, MD**

# **Hazardous Waste Management Training**

Presented by  
GSFC's Medical and Environmental Management Division  
(MEMD) – Code 250

# Objectives

**The objective of this training is for you to understand how to properly manage hazardous, universal, and other regulated waste without compromising human health and the environment. After completing this course, you should be able to:**

- ✓ Be familiar with the training Purpose, Applicability and Authority
- ✓ Identify the different types of waste and where to find information about waste management requirements and responsibilities
- ✓ Know what is a hazardous waste
- ✓ Know what is a satellite accumulation area and its requirements
- ✓ Know container and empty container management requirements
- ✓ Know management practices to improve hazardous waste management
- ✓ Know what is a universal waste and its requirements
- ✓ Understand the roles and responsibilities of the generator - You!
- ✓ Know about pollution prevention, recycling, the Chemical Reuse Center, and how to dispose of personal property
- ✓ Understand the system to request waste services
- ✓ Know about the Hazardous Materials Management System
- ✓ Identify the most common violations at GSFC
- ✓ Understand what is a spill and how to respond to spills
- ✓ Know where to find information

# Purpose, Applicability and Authority

## Purpose

- This training describes the Waste Management Program at the Goddard Space Flight Center (GSFC).
- It describes how GSFC integrates its environmental goals and requirements with the regulatory requirements pertaining to the management of hazardous, universal and other regulated wastes, and recyclable materials.
- This training also outlines the procedures and responsibilities to manage the program effectively.

## Applicability

- This training applies to all GSFC personnel, facilities, and permanent and temporary activities at Greenbelt.
- It also applies to tenant organizations, contractors, grantees, clubs, and any individuals operating under the auspices of GSFC or on GSFC property, as required by law and as directed by contracts, grants, and other agreements.

## Authority

- Environmental Protection Agency (EPA), 40 Code of Federal Regulation, Parts 260 through 273 and Part 279
- Maryland Department of the Environment, Code of Maryland Regulations, Title 26 Department of Environment
- National Aeronautics and Space Administration (NASA) Policy Directive 8500.1, NASA Environmental Management
- Goddard Policy Directive 8500.1, Environmental Policy and Program Management
- Goddard Procedural Requirements (GPR) 8500.3, Waste Management

# Waste Management Program

GSFC has special requirements for the management of certain wastes depending on how they are regulated. The most common types of waste include:



## Hazardous Waste

A wipe contaminated with hazardous material

Spent chemicals/solvents

Empty aerosol cans



## Universal Waste

Fluorescent lamps

Rechargeable batteries

Mercury thermometers and thermostats



## Other Regulated Waste

Antifreeze

Detergents/ Cleaners

Used oil

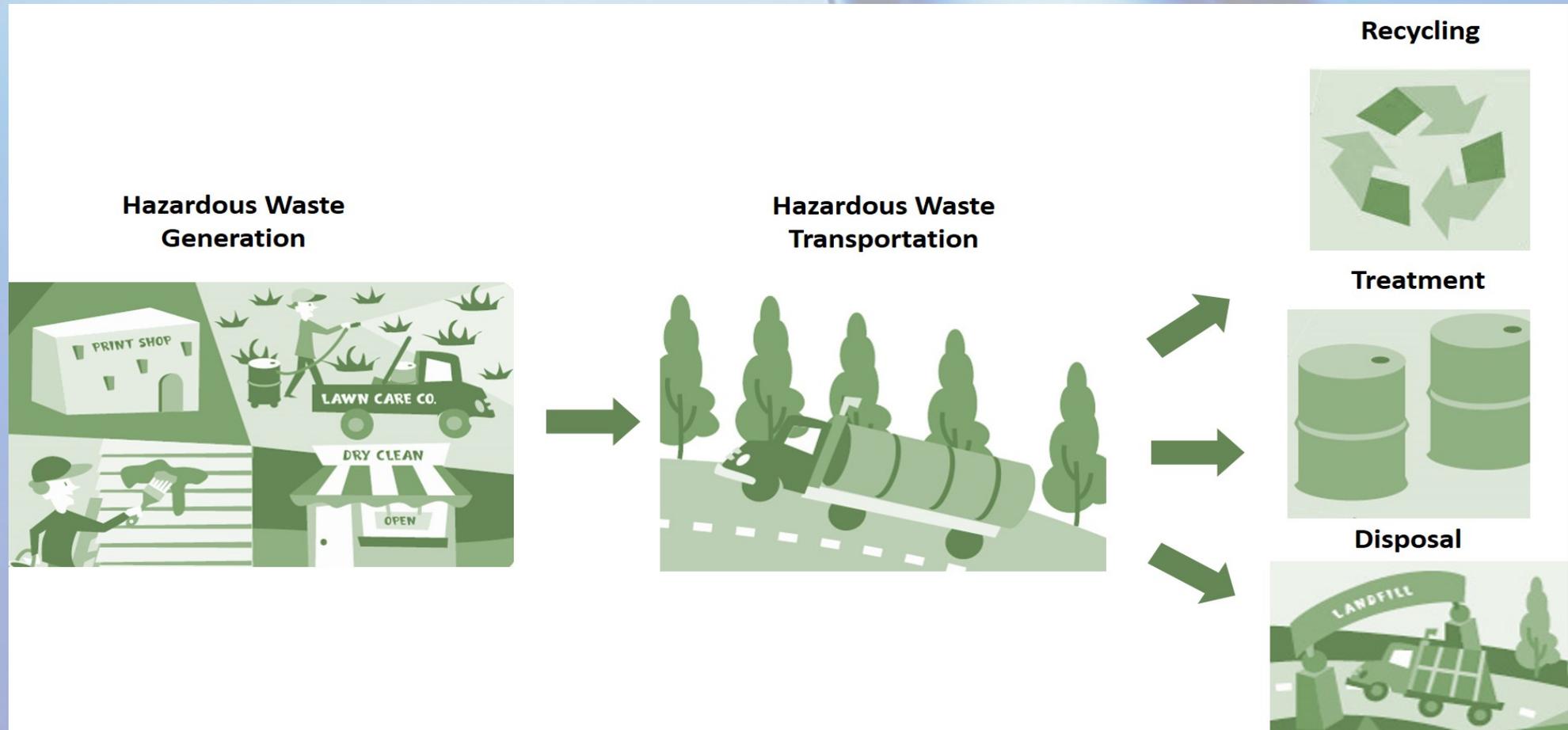
Cooking grease

DIFFERENT TYPES OF WASTE

GSFC's waste management requirements and responsibilities are defined in GPR 8500.3, Waste Management.

# Cradle to Grave Hazardous Waste Management Program

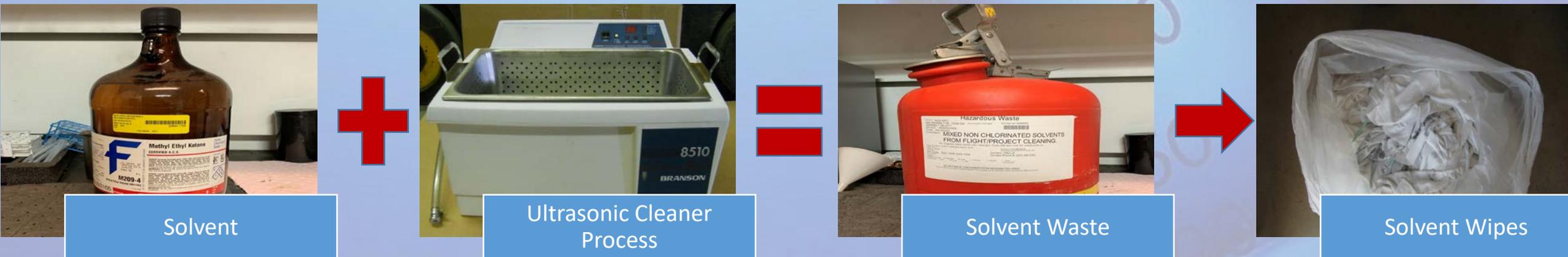
EPA established the Resource Conservation and Recovery Act (RCRA), a regulatory program to guarantee that hazardous waste is managed safely from "cradle to grave" meaning from the time it is generated, while it is stored, transported, and treated, and until it is disposed.



# Hazardous Waste

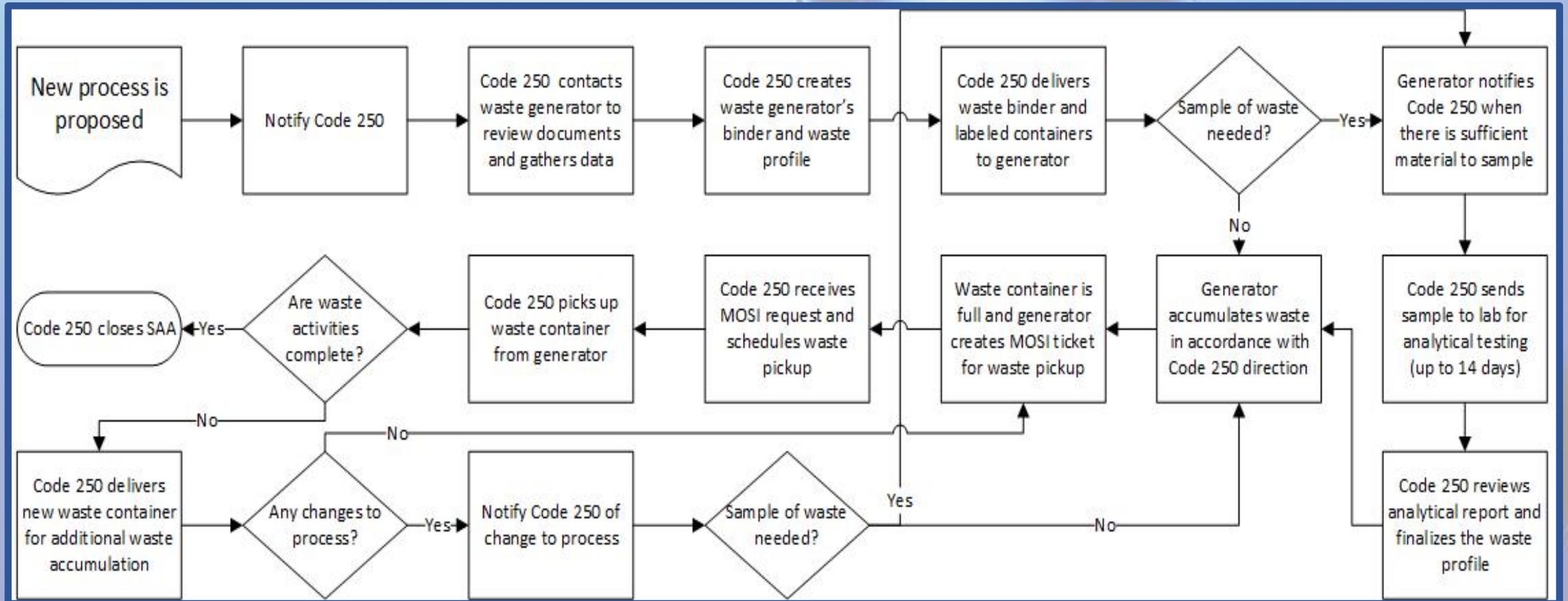
Simply defined, a hazardous waste (HW) is a waste with properties that make it dangerous or capable of having a harmful effect on human health or the environment. Examples of hazardous waste generated at GSFC include: spent solvents (e.g., alcohols, acetone, toluene, halogenated solvents), solvent-contaminated wipes, solvents containing heavy metals, corrosives, flammables, toxic chemicals, spent lamps, batteries, just to list a few.

Example of HW generation: A solvent used in the ultrasonic cleaner process can produce two possible hazardous waste streams: solvent waste and solvent wipes.



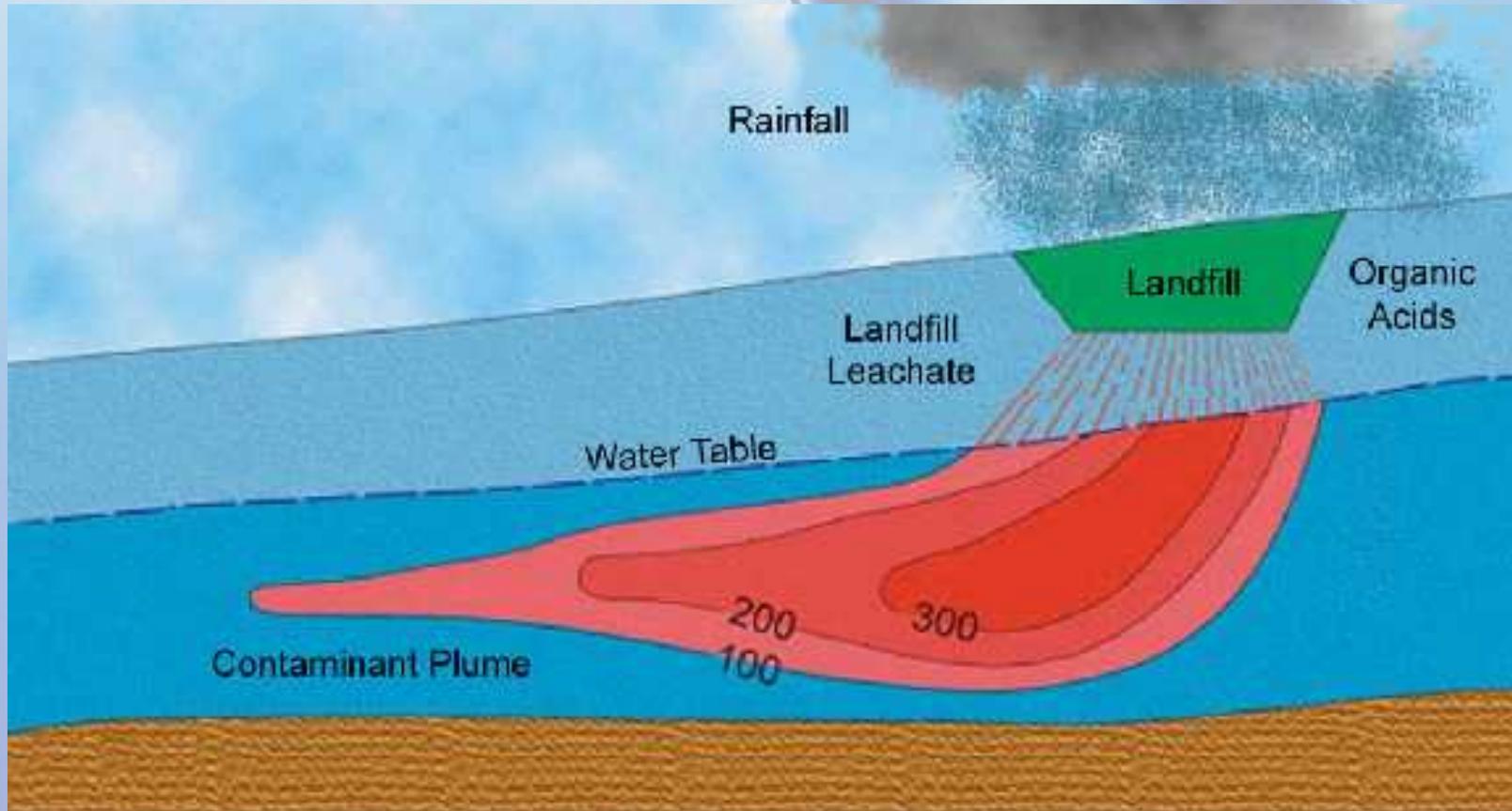
# Steps for Proper Hazardous Waste Management

This flowchart shows the process for proper HW management at GSFC. Following these steps will help you know when to contact the MEMD – Code 250 for help or consultation.



# How Improper Disposal Affects You

A good example of why the generators have to manage the HW properly: wastes in the landfill are leached by rainwater, then flow through the ground and contaminate drinking water wells.



*That's why you have to keep in mind the importance of the proper disposal of HW.  
It can affect **you** and **your family** daily.*

# Satellite Accumulation Area

## What is a Satellite Accumulation Area?

A satellite accumulation area (SAA) is an area at or near any point of generation where hazardous waste initially accumulates. This area must be under the control of the operator of the process generating the waste.

Set-up a SAA prior to hazardous waste generation:

- Submit a service request using the Management Operations Services and Information (MOSI) system for ***Request for Material Characterization***.
- Assign a point of contact (POC) for the SAA, the POC will be responsible to provide the following information: the chemical composition of the hazardous waste, description of the process generating the waste, physical characteristics of the waste, and other important information related to the waste. The POC will also be responsible to ensure that other personnel working in the area are aware and proficient in the proper management of HW.

*MEMD – Code 250 will provide containers with hazardous waste labels for each waste generated in that SAA and will also provide waste profiles describing the contents for each container.*



# Container Management

MEMD - Code 250 provides labeled containers for your hazardous waste collection that meets regulatory requirements. If you have a need for a special container, let MEMD - Code 250 know so the proper container can be provided.

**NOTE:** There might be safety storage requirements that you must follow, please contact the Safety Division - Code 360 for an evaluation.

- Containers must be closed at all times unless you are adding waste to that container. Lids must be secured, a container is not closed if its contents have the potential to be released if the container is knocked over.
- Containers should be in good condition; the container should not be rusted, leaking, cracked, broken or dysfunctional.
- Containers are regulated unless properly emptied. The definition of empty depends on the material originally present (it must have less than one inch in a 55 gallon drum or fewer than three percent by weight of total capacity).
- Secondary containment should be used for any liquids.



Poor condition



Good condition



Secondary containment

# Do Not Move Hazardous Waste

Moving hazardous waste from the point of generation to another SAA **IS PROHIBITED**. Each point of generation must have its own SAA assigned to that location.

- For example: if you are the supervisor or laboratory manager of multiple chemical laboratories, each laboratory must have its own SAA.

MEMD - Code 250 provides containers that are specific to the SAA, **DO NOT** move them to another location.

- If a SAA needs to be relocated or is no longer needed, contact MEMD - Code 250 by submitting a MOSI request for ***“Hazardous Waste Pick-up with a container number or waste ID number”***.

**Note:** HW containers will be picked up at least annually. If at that time the HW containers are not in the SAA, a Safety Health and Environmental Tracking System (SHetrak) finding will be issued to the SAA POC.



# Do Not Treat Hazardous Waste

GSFC IS NOT PERMITTED TO TREAT HAZARDOUS WASTE



Definition of treatment per RCRA regulations:

## Part I

- *Any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character of any hazardous waste...*

## Part II

- *... so as to neutralize such waste, or so as to recover energy or material resources from the waste, or so as to render such waste nonhazardous, or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage, or reduced in volume.*

If you perform an activity in Part I, for the purpose of Part II, it is considered treatment of hazardous waste.

**NOTE:** Building 5 Plating Facility and Building 30 Detector Development Laboratory are the only locations at GSFC allowed to conduct pretreatment of wastewater. They are covered by a discharge authorization permit and meet the criteria of the Domestic Sewage Exclusion in 40 CFR 261.4(a)(1).

# Infrequent Generators

Coordinate with MEMD – Code 250 prior to waste generation **and** for a hazardous waste pickup.

Operations that generate very small quantities of hazardous waste on an infrequent basis (defined as one time in a year) shall maintain the waste at the point of generation.

Infrequent hazardous waste generators have the training, container, and labeling requirements of hazardous waste generators.

# Check on Learning



What is the first stage of the HW management?

- A. Generate the hazardous waste and then notify MEMD - Code 250.
- B. Never notify MEMD - Code 250.
- C. Notify MEMD - Code 250 before generating the waste.

The correct answer is...C.

# Check on Learning

Which one is true?

- A. Containers must be closed at all times unless adding to a waste container.
- B. Containers must be closed only when I leave my work area.
- C. Containers never have to be closed .

The correct answer is...A

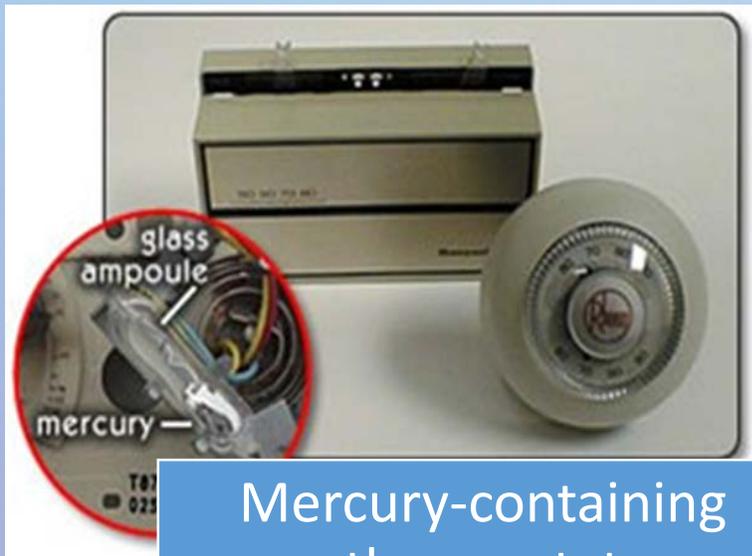


# Universal Waste

Universal wastes are wastes that are generated universally throughout industry and when properly managed some material can be reclaimed and reused. The universal waste regulations streamline collection and management requirements for certain widely-generated hazardous wastes to facilitate environmentally sound collection and proper recycling or treatment.

Universal wastes include the following categories:

- Batteries (**NOT** alkaline);
- Lamps (e.g., fluorescent bulbs including overhead ones found on office furniture);
- Mercury-containing equipment (e.g., thermostats);
- Pesticides.



Mercury-containing  
thermostat



Overhead fluorescent  
tube

# Waste Generator's Responsibilities

## Applies to Hazardous and Universal Waste

Each work area that generates hazardous or universal waste will have a POC assigned by the owning organization. The POC will be responsible to ensure that the area is in compliance with these requirements at all times.

- Read GPR 8500.3, Waste Management, available at the Goddard Directive Management System (GDMS), to learn about GSFC's waste management procedures; <https://gs279gdmsias.gsfc.nasa.gov/GDMSv2/index.htm>.
- Use safe practices when handling hazardous materials and hazardous waste.
- Prior to waste generation, provide description of the process generating the waste to MEMD – Code 250, including chemical reactions.
- Notify MEMD – Code 250 of **ANY process change**, including the use of new chemicals.
- Properly manage waste (e.g., keep containers closed, labeled, and in good condition).
- Maintain SAA near or at the point of generation and under the control of process operators.
- Provide secondary containment for liquids and keep containers away from drains.
- Inspect accumulation areas monthly (use GSFC Form 23-63, available at GDMS under NASA Electronic Forms) and maintain records for one calendar year.
- Keep documentation current and available (e.g., waste profiles, inspection records, training records) in the Hazardous Waste Generator Notebook provided by MEMD – Code 250.

# Waste Generator's Responsibilities

Applies to Hazardous and Universal Waste  
(Continued)

- Notify MEMD – Code 250 when the accumulation areas need to be relocated or are no longer needed.
- Inform temporary generators in your area, such as interns, of the proper hazardous waste management procedures.
- Submit a MOSI ticket to request a hazardous or universal waste pick-up or the characterization of a new waste stream.
- Report spills by calling 911 from a Goddard phone or 301.286.9111 from an outside line or cell phone.
- Use non-hazardous chemicals, consider material substitutions and minimize hazardous waste generation whenever possible.
- Take this required training ANNUALLY.
- Contact the hazardous waste team with any questions or concerns at [GSFC-HAZWASTE@lists.nasa.gov](mailto:GSFC-HAZWASTE@lists.nasa.gov).



# Waste Generator's Responsibilities

Applies to Hazardous and Universal Waste  
(Continued)

## Satellite Accumulation Area (SAA) Requirements

- Keep containers closed, labeled and upright at all times.
- Hazardous waste label (provided by Code 250) must be visible at all times.
- Inspect area monthly (weekly if construction site).
- Arrange for pickup (submit a MOSI ticket at <https://mosi.ndc.nasa.gov/>) when your SAA reaches 45 gallons of hazardous waste or < 1/2 quart of acutely (P-Listed) hazardous waste.
- If liquid, ensure secondary containment is in place.
- Keep containers away from drains.
- Email [GSFC-HAZWASTE@lists.nasa.gov](mailto:GSFC-HAZWASTE@lists.nasa.gov) or call 6-9233 when the SAA needs to be relocated or is no longer needed.
- DO NOT mix waste streams.
- DO NOT move SAA containers to another location/room.
- Contact the Safety Division, Code 360, for safety storage requirements.

Building/Room: B036 R 003

Point of Contact/Code: Timothy Miller Code 553

Phone/Email: 6-4305 timothy.m.miller@nasa.gov



## Universal Waste Accumulation Area Requirements

- Keep universal waste containers closed, labeled, and upright at all times.
- Universal waste label (provided by Code 250) must be visible at all times.
- Inspect area monthly (weekly, if located on a construction site).
- Arrange for pickup by submitting a 'Universal Waste Pick-up' ticket using the MOSI portal at <https://mosi.ndc.nasa.gov/>.
- Email [GSFC-HAZWASTE@lists.nasa.gov](mailto:GSFC-HAZWASTE@lists.nasa.gov) or call 6-9233 when the accumulation area needs to be relocated or is no longer needed.
- Do NOT mix waste streams.

Building/Room: B034 R N140

Point of Contact/Code: Leo Hrybyk Code 250

Phone/Email: 6-9233 william.l.hrybyk@nasa.gov



# Hazardous Waste Generator's Notebook

The Hazardous Waste Generators Notebook, also known as the “Binder”, is where you can find the information needed to manage your hazardous waste.

## Contents:

- Guidelines for SAA Management;
- Hazardous Waste Generator’s Checklist;
- Hazardous Waste Profiles;
- Generator’s SAA Inspection Record;
- Hazardous Waste Generator Training Certificate;
- Hazardous Waste Pick Up Request-MOSI Instructions.

## Hazardous Waste Generator’s Notebook



Goddard Space Flight Center

# Recycling

## Batteries (NOT alkaline)

- Batteries (other than alkaline) contain material normally designated as hazardous waste and need special handling.
- Different battery types must be segregated (lead acid, nickel-cadmium, lithium, silver, etc.).
- Alkaline batteries can be safely disposed of with normal household waste.
- See locations of battery recycling bins at:

<https://recycle.gsfc.nasa.gov/Index.cfm?topic=home.HowDoI.BatteryAnnouncement>

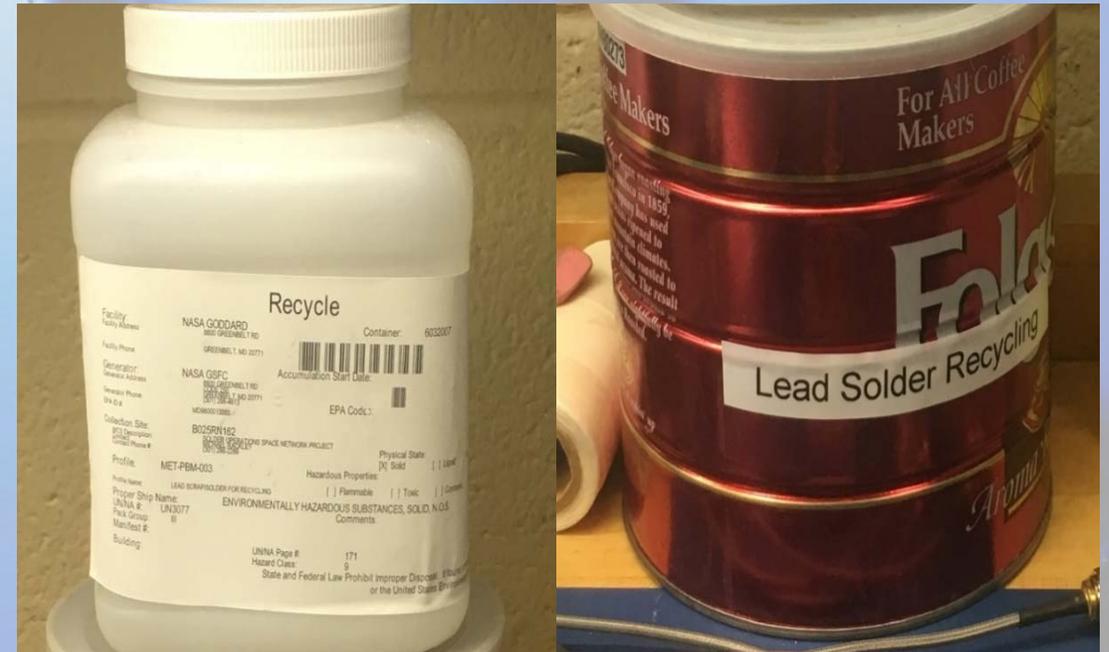


Battery recycling bins

**IMPORTANT:** There is an expenditure of government resources for battery disposal; therefore, **only work-related batteries may be disposed of at GSFC.** Check with your county of residence for disposal of personal batteries.

## Lead Solder Recycling

- Lead has been linked to health effects in humans, particularly children, and can contaminate soil and ground water. Even lead free solder can still contain up to ten percent lead.
- If you have small bench top containers, please make sure they **DO NOT** contain the word "WASTE", it must say "**LEAD SOLDER RECYCLING**".



Both containers are acceptable

**NOTE:** If you have not received a lead solder recycling container contact the hazardous waste team at [GSFC-HAZWASTE@lists.nasa.gov](mailto:GSFC-HAZWASTE@lists.nasa.gov).

# Reuse and Recycling

## Chemical Reuse Center

The Chemical Reuse Center allow users to obtain products that are no longer wanted by an organization **free of cost**. Benefits:

- Reduces waste generation;
- Reduces your chemical inventory;
- Offers cost free products to those who need them.

Turn in **excess/unwanted/unused chemicals** to MEMD - Code 250 by submitting a MOSI request for **Request for Material Characterization**.

Products and chemicals that are available in the Chemical Reuse Center are advertised periodically on Dateline or you can contact the Hazardous Material Office at 301.286.4667 to learn about available chemicals.



## Used Oil

- Used oils can pollute the environment if they are not recycled or disposed of properly. Used oil must be managed properly to prevent contaminating the environment. Used oil filters pose similar waste concerns. If properly drained, they can be safely recycled.
- Used oil can be re-refined into lubricants, processed into fuel oils, and used as raw materials for the refining and petrochemical industries. Additionally, used oil filters contain reusable scrap metal, which steel producers can reuse as scrap feed.
- It has to be properly labeled as "Used oil".



# Reuse and Recycling

(Continued)

## Pollution Prevention

- Pollution prevention (P2) is any practice that reduces, eliminates, or prevents pollution at its source.
- Source reduction means any effort to reduce, at the source, the quantity of waste generated, toxic chemical use, or any release into the environment.
- Source reduction measures include, but are not limited to, process modifications, material substitution, good operating and management practices.

## Reduce, Reuse, Recycle

- REDUCE: It is best to avoid over purchasing to reduce waste.
- REUSE: There are ways to reuse simple office items at GSFC by using Freecycle@NASA at <https://freecycle.nasa.gov>.
  - Free system for sharing unused office items with colleagues.
  - Don't throw it away, offer it up!
  - Don't buy new, see if a colleague has one to give!
  - Items include toners, notebooks, copy paper, white boards.
- RECYCLE: For information about the various GSFC's recycling opportunities, please check the recycling website at <https://recycle.gsfc.nasa.gov>.

# Personal Property

## Personal Property with Potential Safety, Health or Environmental Risks

- Property custodian submit an excess property request through the NASA Equipment System at <https://equipment.nasa.gov/>.
- You will be notified if special actions are required to remove a material of concern from the personal property.
- Disposal of removed material will be managed in accordance with GPR 8500.3, Waste Management. The assigned property organization maintains responsibility for providing information and coordination for waste characterization.

## Personal Property Containing Refrigerants

- Personal property containing refrigerants (e.g., refrigerators, portable air conditioners) will be recycled if possible. The refrigerants must be removed from the personal property before it is recycled.
- The Supply and Equipment Management Branch – Code 273 will assist you with obtaining a third party support to remove refrigerants (if the Facilities Management Division – Code 220 cannot remove it).
- Personal property that has been removed of refrigerants shall be tagged as such, including the date of removal, and the technician performing the removal.

# Personal Property

(Continued)

## NASA-Owned Electronic Personal Property

- Property custodian submit an excess property request through the NASA Equipment System at <https://equipment.nasa.gov/>.
- The Supply and Equipment Management Branch – Code 273 will screen the property for use at other NASA Centers, other Federal Agencies, State and Local Government Agencies.
- If the items cannot be reused by any of the options above, they will be recycled by a certified R2 or E-Steward recycler. **NOTE: End User Services Program Office equipment or other contractor-held equipment is handled in accordance with the contract.**

## Precious Metals

- If items containing precious metals are no longer needed, the property custodian will submit an excess property request through the NASA Equipment System at <https://equipment.nasa.gov/>.
- The Supply and Equipment Management Branch – Code 273 will screen the items to other NASA Centers and Federal agencies.
- If they are not requested, they will be sold through a General Service Administration sale.

## Non- Precious Metals

- If items containing non precious metals are no longer needed, the property custodian will submit an excess property request through the NASA Equipment System at <https://equipment.nasa.gov/>.
- These items will be categorized as scrap and disposed of by a recycler.

# Management Operations Services and Information Demonstration

<https://mosi.ndc.nasa.gov/>

To submit a request for material characterization, hazardous or universal waste pick-up :

1. Click on “Submit, Approve or View Services”;
2. Click on “New Ticket”;
3. Click on “250-Medical and Environmental” tab;
4. Select the appropriate service:
  - Request for Material Characterization; or
  - Hazardous Waste Pick-up with a container number or waste ID number; or
  - Universal Waste Pick-up.



# Hazardous Materials Management System

The Hazardous Materials Management System (HMMS) is a program designed to manage hazardous material (HM) and waste compliance data. GSFC is required to report hazardous material usage and storage to emergency planning/regulatory agencies; therefore, it is important to maintain an accurate inventory by properly managing yellow inventory barcode stickers.

## Keep your inventory accurate:

- Turn-in empty HM containers to the Information and Logistics Management Division - Code 270 by submitting a MOSI service request for **Empty Container Pick-up with a yellow inventory sticker**, or turn-in yellow inventory barcode stickers from empty containers to [GSFC-HMMS-Support@mail.nasa.gov](mailto:GSFC-HMMS-Support@mail.nasa.gov) (scan it and send it), or call 301.286.4667 for assistance.
- **Aerosol cans are never considered to be fully empty** at GSFC due to variations in atmospheric pressure and temperature. Submit a MOSI service request for **Hazardous Waste Pick-up with a container number or waste ID number** if you have an aerosol waste container, otherwise, submit a service request for **Request for Material Characterization**.



Aerosol cans for  
evaluation



Aerosol waste container

# Hazardous Materials Management System

(Continued)

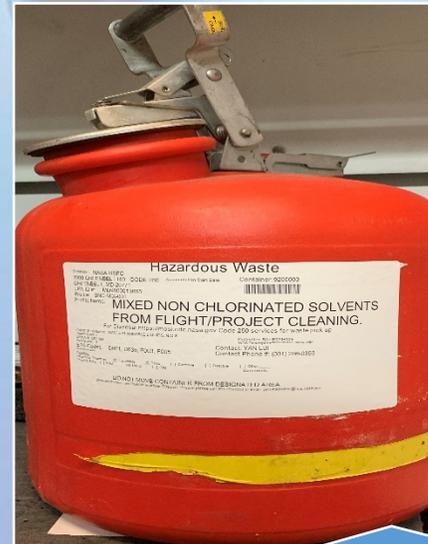
Turn-in unused/unwanted HM (in its original container) to MEMD - Code 250 by submitting a MOSI ticket for **Request for Material Characterization**. The HM might be placed in the Chemical Reuse Center for others to use.

- Do not remove the yellow inventory barcode sticker from the container.
- Keep the container in the storage location, do not place the containers in the SAA.

**Notify HMMS** when a HM container is moved to a new location or changes ownership, or when a HM container does not have a yellow inventory barcode sticker.



Hazardous Material  
Label



Hazardous Waste  
Label

# Check on Learning



You are the point of contact responsible for waste containers in your SAA. A coworker asks you if he can use your waste container to collect his waste from another work area. The waste does not match the profile sheet in your hazardous waste generator's notebook. You tell him yes because it is all hazardous waste and it can go into the same container.

- A. True
- B. False

The correct answer is...B.

Different processes and different chemicals require different waste profiles and waste containers. If you are unsure of what waste can go into a specific container, consult the "Waste Profile" section of the binder for validation. If it does not match or you are unsure, please contact MEMD - Code 250 before mixing the waste.

# Check on Learning

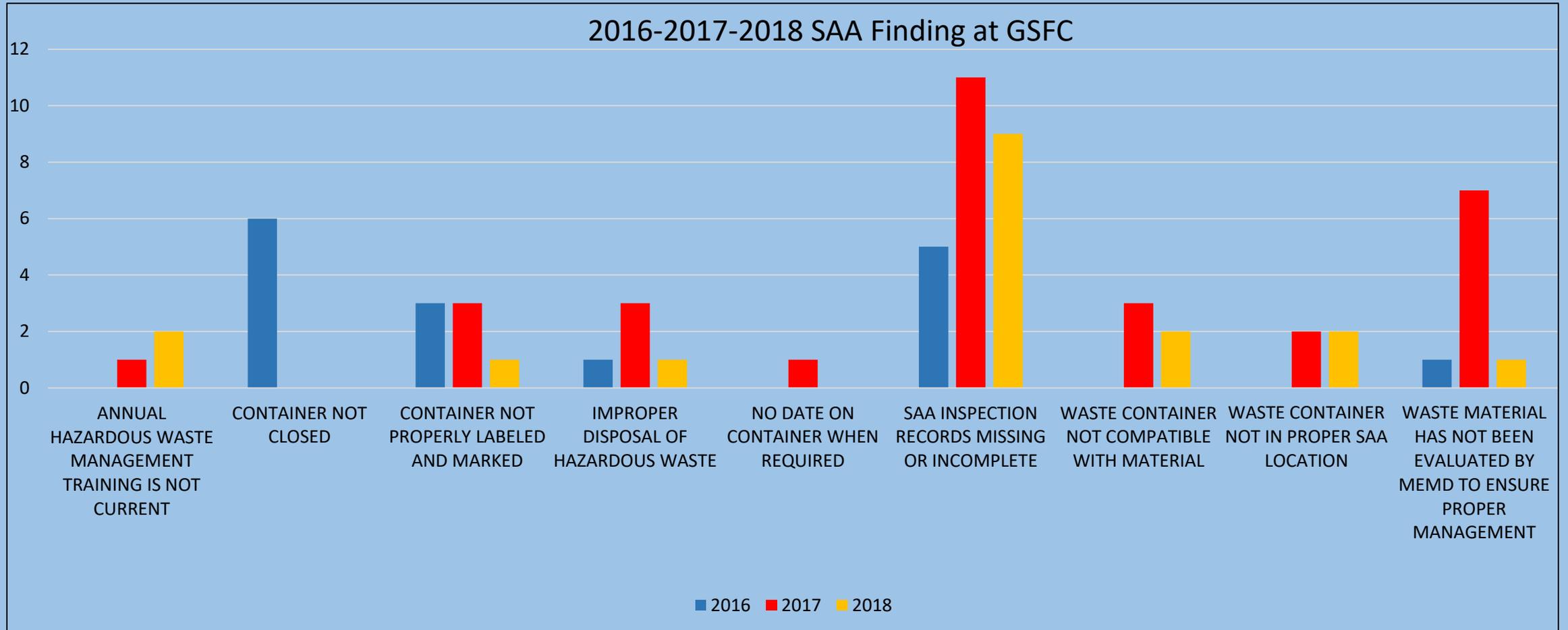


If you have unwanted chemicals you should:

- A. Find someone's SAA and place them in that SAA for MEMD - Code 250 to pick them up.
- B. Leave the chemicals at issue point and submit a MOSI request for material characterization as soon as possible.
- C. Wait until they expire to dispose of them.

The correct answer is...B.

# Common GSFC RCRA Violations



# Common GSFC RCRA Violations

(Continued)



Improper storage of hazardous waste, open containers



Improper storage of hazardous waste



Improper disposal of hazardous waste



Improper disposal of universal waste



Improper storage of hazardous material

# Spills

Spills are releases of petroleum products, antifreeze, chemicals or any harmful substance to the environment (e.g., on the floor, on the ground, down a drain).

- All spills, including oil leaks from traveling vehicles on Center (personal, contractor or government vehicle), and water leaks that overflow to hazardous materials/waste storage areas or any other areas of concern, must be reported immediately by dialing **911** from a Goddard phone or **301.286.9111** from a non-Goddard phone.



Antifreeze or oil leaking from a car



Hydraulic fluid leaking from heavy equipment



Chemicals leaking from materials outside



Sewage or domestic water releases from line breaks or overflows.

Protect yourself and those in the vicinity from the release. **If you see a spill, report it!**

*Keeping the Center clean and protecting the environment is everyone's job!*

# Check on Learning

If you see a spill...

- A. Clean it up yourself.
- B. Do nothing.
- C. Call 911 from a Goddard phone or 301.286.9111 from a non-Goddard phone.



The correct answer is...C.

# Legal Consequences

There are various legal consequences that involve penalties such as fines and/or jail sentences.

## Treatment, storage, or disposal without a permit:

- 5 years and/or up to \$50,000/day violation.
  - Double for subsequent violations.

## Treatment, storage, or disposal in VIOLATION of a permit:

- 2 years and/or up to \$50,000/day violation
  - Double for subsequent violations.

## Transportation of HW without a manifest:

- 2 years and/or up to \$50,000/day violation
  - Double for subsequent violations.

## Transportation to a Unpermitted Facility:

- 5 years and/or up to \$50,000/day violation
  - Double for subsequent violations.

## RCRA false statement:

- Make false statement in ANY document or omits material information.
- 2 years and/or up to \$50,000/day violation
  - Double for subsequent violations.

## Knowing Alteration, Destruction or Concealment of Records:

- 5 years and/or up to \$50,000/day violation
  - Double for subsequent violations.

## Knowing Endangerment:

- Transport, treat, stores, disposes of, or exports a HW knowing that act can cause another person in **IMMINENT danger, death or body injuries.**
- 15 years and/or up to \$250,000 or \$1,000,000 if an Organization.

## Illegal Export of HW:

- Export HW without consent of the receiving country or in violation of an international agreement.
- 5 years and/or up to \$50,000/day violation
  - Double for subsequent violations.



# Legal Consequences Example

## Richard Delp-Cedar Valley Electroplating

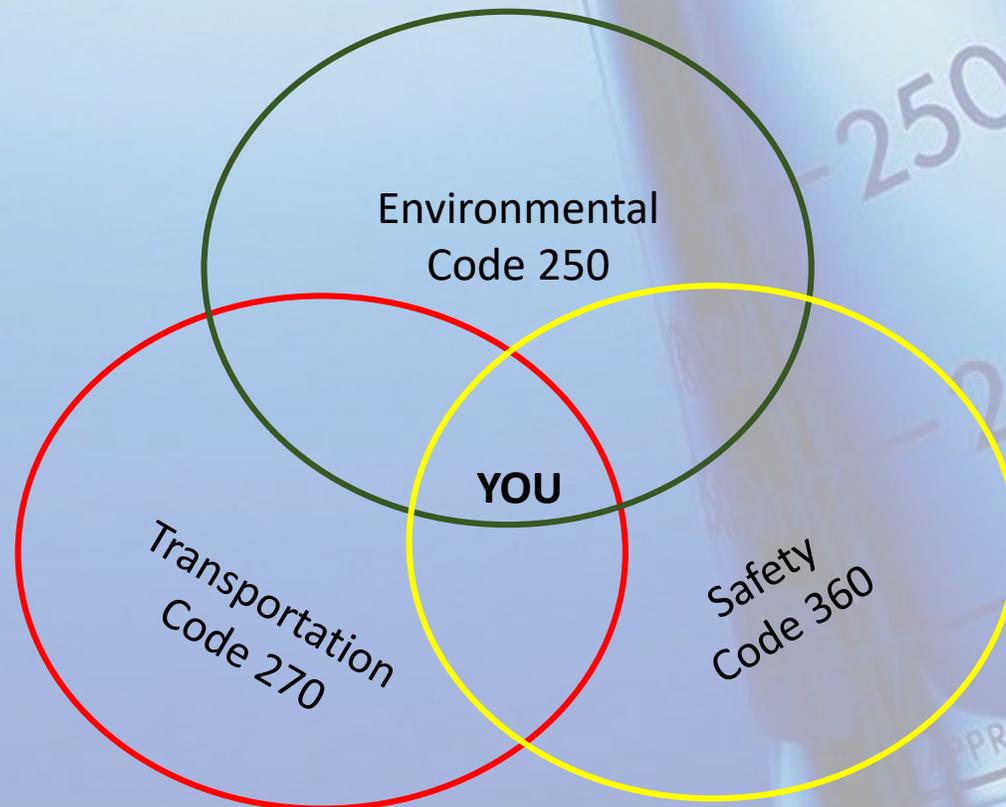
On January 18, 2017, a Cedar Falls, Iowa man was sentenced to two years in federal prison for knowingly storing hazardous waste without a permit. Richard Delp's company, Cedar Valley Electroplating (CVE), was a large quantity hazardous waste generator, producing more than 1,000 kilograms of hazardous waste per month. Neither Delp nor CVE had a permit to treat, store or dispose of hazardous waste under federal law. Delp closed CVE in 2011, leaving behind hundreds of gallons of corrosive and toxic chemicals and wastes inside and outside the building.

*Delp was ordered to make nearly \$800,000 in restitution to EPA's Superfund to pay for clean-up costs.*



# Total Compliance

To be in compliance generators must comply with other federal regulations, in addition to environmental regulations, such as safety and transportation regulations.



# Where Can You Find Information?

- Medical and Environmental Management Division - Code 250 website at <https://code200-external.gsfc.nasa.gov/250/environmental>.
- Management Operations Services and Information (MOSI) system at <https://mosi.ndc.nasa.gov/>.
- GPR 8500.3 - Waste Management (available via GDMS at <https://gs279gdmsias.gsfc.nasa.gov/GDMSv2/index.htm>).
- Hazardous Waste Generator's Notebook.
- Safety Data Sheets at <https://code200-external.gsfc.nasa.gov/250/environmental/find-safety-data-sheet-sds>.
- Hazardous Waste Team at [GSFC-HAZWASTE@lists.nasa.gov](mailto:GSFC-HAZWASTE@lists.nasa.gov) or 301.286.9233.
- State - Maryland Department of the Environment.
  - COMAR Title 26, Subtitle 13, Disposal of Controlled Hazardous Substances at [http://www.dsd.state.md.us/comar/subtitle\\_chapters/26\\_Chapters.aspx#Subtitle13](http://www.dsd.state.md.us/comar/subtitle_chapters/26_Chapters.aspx#Subtitle13).
- Federal - Environmental Protection Agency.
  - Title 40 of the Code of Federal Regulations (CFR), Parts 260 through 280 at <https://ecfr.io/Title-40/>.



# Conclusion

Knowing the hazardous and universal waste management requirements leads to environmental compliance.

Reduces  
audit  
findings

Creates a  
safe  
workplace

Reduces  
financial  
liability

Protects the  
environment