

# Been Farming Long?

{



Protecting Their Future!!

# Waste Management

## & Hazardous Waste

- & Ignitable
- & Corrosive
- & Toxic
- & Reactive
- & Listed

## ❖ Recyclable

- ❖ Metal
- ❖ Plastic
- ❖ Paper
- ❖ Cardboard

## ➤ Solid Waste

- Food Scraps
- Wood
- Glass
- Organics





# What is Hazardous Waste



## It's a Solid Waste

- In order for a waste to be a hazardous waste it must first meet the definition of a solid waste -- Here's where I put in a four page explanation defining solid waste, we don't have time for that. If you're interested it can be found in 40 CFR Part 261.2!!



## Hazardous Waste

In order for a solid waste to be considered hazardous it will exhibit one or more of the following characteristics:

- Ignitability
- Toxicity
- Corrosivity
- Reactivity

And/Or be considered a listed hazardous waste.

# How Does This Effect Me?



- ⌘ South Dakota's hazardous waste program regulates businesses that generate, store, transport, or dispose of hazardous waste.
  - ⌘ ARSD 74:28 adopts the federal hazardous waste regulations 40 CFR 260 through 279 by reference.

# Four Key Requirements

## ⌘ Determination

- ⌘ Is it a waste? Can it still be used for its intended purpose?

## ⌘ Identification

- ⌘ Does it exhibit a hazardous characteristic? Is it a listed hazardous waste?

## ⌘ Quantification

- ⌘ How much do I generate in a calendar month?
- ⌘ Am I required to notify of hazardous waste generation.

## ⌘ Management

- ⌘ What do I do with it?



# Determination

Is it a waste? Can it still be used for its intended purpose? Can it be repurposed?

Not This Kind!!!



# Identification

- ⌘ So we determined that we have a waste. But is it hazardous?? How do we know??
  - ⌘ Product knowledge – we know gas burns, just as we know battery acid is corrosive.
  - ⌘ Material Safety Data Sheets (MSDS) – tells you what the product is as well as physical and chemical properties, and safety precautions.
  - ⌘ Outside Consultation – there are many firms available for you to hire to help you with hazardous waste.
  - ⌘ Department of Environment and Natural Resources Hazardous Waste Program – contact us and we can get you pointed in the right direction.

# Quantification

How much hazardous waste you generate in a calendar month.



- ❧ HW Storage Logs – Keep track of the amount of waste your workers place in a storage container; e.g. record the amount of waste in a storage container at the end of each day/shift/week.
- ❧ Shipping manifests – HW manifests show the amount of waste shipped. These amounts can be used to calculate the amount generated between shipments. .



# Management

## Depends Heavily on Generator Status

### ⌘ Hazardous Waste Generated per Calendar Month

- ⌘ CESQG – Generates less than 220 pounds or less than 2.2 pounds of acute hazardous waste.
- ⌘ SQG – Generates between 220 pounds 2,200 pounds of hazardous waste.
- ⌘ LQG – Generates greater than 2,200 pounds or greater than 2.2 pounds of acute hazardous waste.

## { CESQG

- ⌘ Waste Determination
- ⌘ Do not accumulate greater than 2,200 pounds of hazardous waste.
- ⌘ Storage Containers need to be in good condition and properly closed unless being filled.
- ⌘ Properly Dispose of all waste.
- ⌘ Follow D.O.T. transportation regulations.
- ⌘ Label used oil containers.

## { SQG

- ⌘ CESQG Plus
- ⌘ Notify DENR of hazardous waste generation.
- ⌘ Label and date all hazardous waste containers; maintain adequate aisle space.
- ⌘ Limit hazardous waste storage to 180 days unless: treatment, storage, disposal facility is greater than 200 miles away, then hazardous waste may be accumulated for 270 days.
- ⌘ No total accumulation of greater than 13,200 pounds.
- ⌘ Manifest all hazardous waste shipments to permitted TSDF.
- ⌘ Designate primary emergency coordinator.
- ⌘ Post emergency information by phones.
- ⌘ Provide hazardous waste handling training for employees.

# Generator Status

# LQG

- ⌘ SQG plus....
- ⌘ Prepare a written Contingency Plan that describes emergency procedures.
- ⌘ Recordkeeping (training documentation) and reporting.
- ⌘ Hazardous waste minimization, recycling, and disposal.
- ⌘ Limit hazardous waste storage to 90 days.
- ⌘ Biennial Reporting – submitted to the department by March 1<sup>st</sup> of each even numbered year covering the previous calendar year.
- ⌘ Exception reporting.



# Common Wastes

- ⌘ Spent Mercury-Containing Lamps
- ⌘ Waste Paint-Related Materials
- ⌘ Spent Lead-Acid Batteries
- ⌘ Used Oil and Used Oil Filters
- ⌘ Spent Parts-Washing Solvent
- ⌘ Freon/Coolants
- ⌘ Antifreeze
- ⌘ Aerosols
- ⌘ Misc....



# Spent Lamps

- ⌘ Mercury-Containing Lamps are a hazardous waste for mercury and lead.
  - ⌘ New environmentally friendly “green bulbs” are not a hazardous waste.
- ⌘ How you are required to handle them is determined by generator status.
- ⌘ CESQG can dispose of them as solid waste. Although we still encourage recycling to keep mercury and lead out of our landfills.
- ⌘ SQG/LQG are required to handle them as a HW or recycle as a Universal Waste.



# Waste Paint-Related Materials

- ⌘ Typically Hazardous Waste!
  - ⌘ Primarily consists of thinner/cleaner.
  - ⌘ Often times Ignitable.
  - ⌘ Includes paint waste containing heavy metals or other listed materials.





# Spent Lead-Acid Batteries

- ⌘ Handled as recyclable.
- ⌘ Returned to supplier for core charge.
- ⌘ Does not count towards company's generator status if recycled.
- ⌘ Why would you handle it any other way??



# Spent Parts-Washing Solvent

- ⌘ Usually classified as an ignitable waste.
- ⌘ Can contain other hazardous characteristics as well (test to find out).
- ⌘ Generated upon removal from service.
  - ⌘ Basically once it no longer serves its intended purpose.
- ⌘ Handling
  - ⌘ Recycled through environmental service company.
  - ⌘ Added to used oil to be burned for energy recovery.
- ⌘ Regardless of handling, spent parts-washing solvent does count towards generator status.

# Parts Washing Solvent

## ⌘ Distillation Units

- ⌘ Cleans solvent internally.
- ⌘ Removes oil and grease from solvent.
- ⌘ Oils generated through this process are added to used oil.
- ⌘ Decreases the quantifiable amount of spent parts washing solvent.

## Alternative Uses for Parts Washing Unit





# Freon

- ⌘ Recycled through on-site reclamation units.
- ⌘ Environmentally friendly substitutes used when necessary.



# Antifreeze

- ⌘ Recycled
  - ⌘ By far the most common management method.
  - ⌘ Conducted on-site or offsite.
- ⌘ May be disposed through filtration and discharge to a publicly owned treatment facility-check with local officials.

# Aerosols

- ⌘ Paint, lubricants, cleaners, etc....
- ⌘ When empty, container disposed as solid waste.
- ⌘ Some recyclers will accept aerosol containers.
  - ⌘ May require them to be punctured and drained of all contents



- ⌘ If punctured, residual fluid may be hazardous waste.
  - ⌘ Company's responsibility to conduct a determination on all waste streams, including aerosols.

# Used Oil

- ⌘ Includes Engine Oil and Hydraulic Fluid.
- ⌘ Recycled by a certified used oil hauler.
- ⌘ Burned on-site for energy recovery.





# Used Oil Problems

## ⌘ Given Away

- ⌘ Used oil generated by a business must be tested to ensure it meets on-spec requirements prior to being given to another for burning.

## ⌘ Failure to Label

- ⌘ Each tank used oil is stored in must be clearly labeled as “used oil”.



- ⌘ Punctured and drained for 24-hour period.
- ⌘ Hot Drained
- ⌘ Drained via a filter crushing device.

Once drained used oil filters can be disposed as solid waste or recycled.



# Oil Filters

# Miscellaneous

## ⌘ Could Be Anything!!

- ⌘ It's up to you to determine whether or not any and all waste generated at your site is a hazardous waste.
- ⌘ And which generator status you fall into will determine your waste management options.



# Common Violations

- ⌘ Failure to conduct a waste determination.
- ⌘ Labels and dates as required.
  - ⌘ “Used Oil” label is very common.
- ⌘ Storage Containers in good condition and properly closed.
- ⌘ Manifests and records retention.
  - ⌘ Records must be maintained on-site for a minimum of three years.
- ⌘ Training requirements.

# Proper Labeling

- Company Name
- Address
- Phone Number
- Unique Tracking Number
  - Will Match Manifest
- Accumulation Start Date
  - Ensures Compliance with hold Times
- Company's Generator ID
- Waste Code
  - Characteristic or Listed.
- DOT Shipping Name

HAZARDOUS WASTE	
FEDERAL LAW PROHIBITS IMPROPER DISPOSAL. IF FOUND, CONTACT THE NEAREST POLICE OR PUBLIC SAFETY AUTHORITY OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY.	
GENERATOR INFORMATION:	
NAME	Generic College
ADDRESS	123 College Street
CITY	College Town
STATE	CT
ZIP	06032
PHONE	(800)123-4567
MANIFEST TRACKING NO.	123456789ABC
ACCUMULATION START DATE	12/10/2007
EPA ID NO.	CTD000123456
EPA WASTE NO.	D002
Waste Corrosive Liquids, N.O.S., 8, UN 1760, III (Sulfuric Acid, Hydrochloric Acid)	
D.O.T. PROPER SHIPPING NAME AND UN OR NA NO. WITH PREFIX	
HANDLE WITH CARE!	
STYLE WM8	

LABELMASTER® (800) 621-6806 www.labelmaster.com



# Storage

Drums in good condition

Properly labeled

Adequate aisle space

- Allows for safe inspection of all drums to ensure compliance, and access for emergency equipment

Securely Closed





# Manifest

## Not required for CESQG

-but is a clear, simple way to maintain records of hazardous waste generated on-site.

- Will accompany each shipment of hazardous waste offsite.
- Will list each company who handles the waste, from the generator to each transporter, and finally to the designated treatment, storage, or disposal facility.
- Must be signed and dated by each company handling the waste.

Please print or type. (Form designed for use on 11x17 (12-1/8") typewriter.) Form Approved OMB No. 2050-0033

### 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 from 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							
No. (1-4)	9a. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
		No.	Type				
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 assignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/certified, 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 assignment 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) (I am a large quantity generator) or (b) (I am a small quantity generator) is true.							
Generator's/Offeror's Printed/Typed Name							
Signature							
Month Day Year							
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____							
Transporter signature (for exports only)							
17. Transporter Acknowledgment of Receipt of Materials							
Transporter 1 Printed/Typed Name						Signature	
Transporter 2 Printed/Typed Name						Signature	
Month Day Year						Month Day Year	
18. Discrepancy							
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
Manifest Reference Number: _____ U.S. EPA ID Number							
18b. Alternate Facility (or Generator)							
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, storage, and recycling actions)							
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						Month Day Year	

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

# Minimization and Recycling



Simply put, if you use less products that will be classified as Hazardous Waste once used, the less Hazardous Waste you produce.

# Questions.....



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