

# KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT

As the state's environmental protection and public health agency, KDHE promotes responsible choices to protect the health and environment of all Kansas.

Through education, direct services and the assessment of data and trends, coupled with policy development and enforcement, KDHE will improve health and quality of life. We prevent illness, injuries and foster a safe and sustainable environment for the people of Kansas.



# WORKSHOP OVERVIEW

- Will not be a substitute for training your employees (job specific training is still required).
- Will introduce you to the basics of RCRA
  - Waste Classification (waste determination)
  - Managing Containers
  - Generator Requirements
  - Compliance and Enforcement Overview

# How to Classify Your Waste!



Kansas Department of Health and Environment  
Bureau of Waste Management

# REGULATORY BACKGROUND

- Resource Conservation & Recovery Act (RCRA) 1976
- EPA implemented hazardous waste regulations in 1980
- Kansas Hazardous Waste Program began in 1982
- Major revisions to Kansas Hazardous Waste Program in about February 2011

**Why???**



# Why???



# GENERATOR'S RESPONSIBILITY

- Generators must:
  - Identify all solid and hazardous waste streams
  - Determine quantity of each hazardous waste generated over time (no averaging)
  - Ensure proper handling and disposal of all wastes

# HAZARDOUS WASTE DETERMINATION

- First, is it a waste? A material is considered discarded if it is:
  - Abandoned (disposed, burned, accumulated, treated, or stored)
  - Recycled (spent solvent in distillation system)
  - Considered inherently waste-like

# Abandoned?



# Abandoned?



# HAZARDOUS WASTE DETERMINATION

- Second, is it a SOLID WASTE ?

- Solid waste can be:

- Liquid
    - Semi-Solid
    - Gas



- Materials are solid waste if they are recycled or are accumulated, stored, or treated prior to recycling.

# HAZARDOUS WASTE DETERMINATION

- Third, is the waste specifically exempted (40 CFR 261.4)?
  - Discharged to the POTW or a permitted NPDES outfall
  - Mining overburden
  - Household waste
  - Agricultural waste
  - Meets the definition of a Commercial Chemical Product (CCP) (K.A.R. 28-31-261a)



# COMMERCIAL CHEMICAL PRODUCT (CCP)

- Any chemical that meets all of the following conditions shall not be subject to the Kansas hazardous waste program:
  - One or more potential uses exist
  - Is unused and in its original physical and chemical state or is reusable for its intended commercial purpose without undergoing treatment or processing.

# CCP (Continued)

- meets all of the following conditions (continued):
  - Is in its original container or an equivalent container
  - Is in good condition
  - Has a label affixed to it that is legible and identifies the contents of the container
  - Is stored in a manner that preserves the chemical's integrity and does not cause it to become unstable

# CCP (Continued)

- meets all of the following conditions (continued):
  - The chemical in storage can reasonably be used within the shelf life based on the following criteria:
    - The amount of chemical in storage;
    - The shelf life relative to the projected use or uses;
    - Historical use of the chemical; and
    - Any other relevant information

# CCP (Continued)

- In the simplest terms:

If you are managing the chemical as a valuable resource (like all of your other raw materials), then there will probably be no need to review this definition.

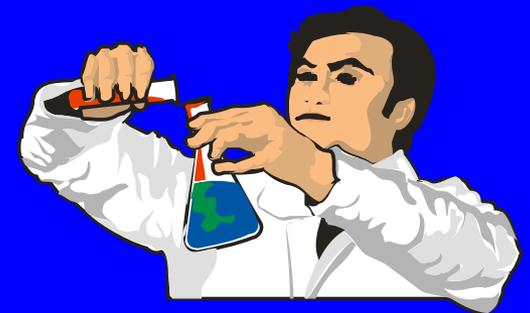
# CCP (Continued)

- Is this how you manage all of your valuable raw materials?



# HAZARDOUS WASTE DETERMINATION

- Determinations can be made in two ways:
  - Knowledge of process (or Generator Knowledge)
  - Testing by KDHE Certified Laboratory
- <http://www.kdhe.state.ks.us/envlab/>
- All waste determinations must be documented.



# HAZARDOUS WASTE DETERMINATION

- Is it “Listed” Hazardous Waste?
- Is it “Characteristic” Hazardous Waste?

# LISTED HAZARDOUS WASTE

- Does the waste appear on the F, K, P, or U lists?
  - F-Listed (Non-specific sources)
  - K-Listed (Specific sources)
  - P-Listed (Acutely hazardous discarded commercial chemicals-regulated at 2.2 lbs)
  - U-Listed (Discarded commercial chemicals)

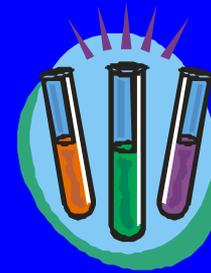


# CHARACTERISTIC HAZARDOUS WASTE

- Does the waste meet one of the four characteristics?



Ignitability (D001)  
(Less than 140 °F)



Corrosivity (D002)  
(pH  $\leq 2$  or  $\geq 12.5$ )



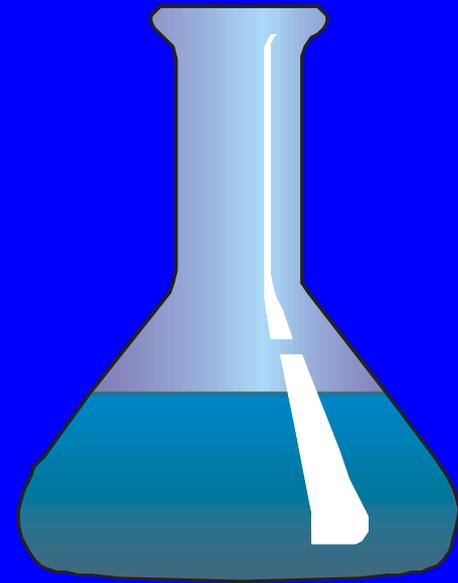
Reactivity (D003)



Toxicity (D004 – D043)

# TOXICITY

- Analyze using Toxicity Characteristic Leaching Procedure (TCLP) for one or more of the following:
  - Heavy Metals
  - Volatile Compounds
  - Pesticides/Herbicides
  - Base Neutral Acids



# DOCUMENT THE DETERMINATION

- Document how each waste determination was made.
- Include copies of all supporting documentation that was used (analytical reports, design plans, MSDSs, etc.).
- Waste profiles by themselves are not generally sufficient waste determinations or documentation.
- Keep documentation for 3 years from the date the waste was last shipped off site.

# UNIVERSAL WASTES

## (a subset of hazardous waste)

- Applicable to:
  - Certain batteries
  - Certain pesticides
  - Mercury containing equipment
  - Certain lamps (bulbs)
- Two types of Universal Waste Handlers
  - Small Quantity (< 11,000 lbs)
  - Large Quantity (11,000 lbs or more)

# HAZARDOUS MATERIALS VS HAZARDOUS WASTES

- Medical Waste – waste generated in connection with human or animal care, which is potentially capable of causing disease or injury. Not necessarily a hazardous waste, but probably a “special waste”.
- Used Oil – Used oil that is recycled for energy or material recovery is not subject to the hazardous waste regulations.

# SPECIAL WASTE DISPOSAL AUTHORIZATION (SWDA)

- SWDA is required for:
  - Any industrial waste that has to be segregated at the point of generation or requires special handling at the landfill
  - Any waste arriving at the landfill in drums (barrels)
  - Any waste from a remediation site or a remedial system
- Generator must fill out special waste disposal request form found at <http://www.kdheks.gov/waste/> and send it to KDHE via [swda@kdhe.state.ks.us](mailto:swda@kdhe.state.ks.us) or fax it to 785-296-8909 or 785-296-8721.

# SOLID WASTE DISPOSAL

- Municipal Solid Waste Landfill (MSWLF) and Small Arid Landfill (SAL)
  - No liquids allowed
  - Waste may be brought directly or through a transfer station
  - Special Waste Disposal Authorization (SWDA) may be required
- Construction and Demolition Landfill (CDL)
  - Only construction and demolition waste
- Industrial Landfill
  - Specific waste from a specific facility



# CONTACT INFORMATION

- BWM web site:  
<http://www.kdheks.gov/waste>
- Jim Rudeen  
785-296-1603  
[jrudeen@kdheks.gov](mailto:jrudeen@kdheks.gov)
- Rebecca Wenner  
785-296-1604  
[rwenner@kdheks.gov](mailto:rwenner@kdheks.gov)

**QUESTIONS???**