

WHAT IS A HAZARDOUS 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

Why???



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

WHAT IS A SOLID WASTE?

- Solid Waste is any discarded material that is not excluded or covered by a variance
- Solid Waste can be:
 - Liquid
 - Semi-Solid
 - Gas



WHAT IS HAZARDOUS WASTE?

- Must first be a solid waste
- A material is considered discarded if it is:
 - Abandoned
 - Recycled
 - Considered inherently waste-like

WHAT IS HAZARDOUS WASTE?

- Materials are considered abandoned if:
 - Disposed
 - Burned or incinerated
 - Accumulated, stored, or treated
- Materials are solid waste if they are recycled or are accumulated, stored, or treated prior to recycling

HAZARDOUS WASTE DETERMINATION

- Is the waste specifically exempted (**40 CFR 261.4**)?
 - Discharged to the POTW or a permitted NPDES outfall
 - Mining overburden
 - Household Wastes
 - Agricultural Waste



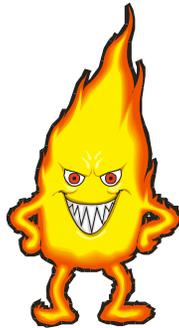
HAZARDOUS WASTE DETERMINATION

- 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

- Does the waste meet one of the four characteristics?



Ignitability (D001)
(Less than 140 °F)



Corrosivity (D002)
(pH ≤ 2 or ≥ 12.5)



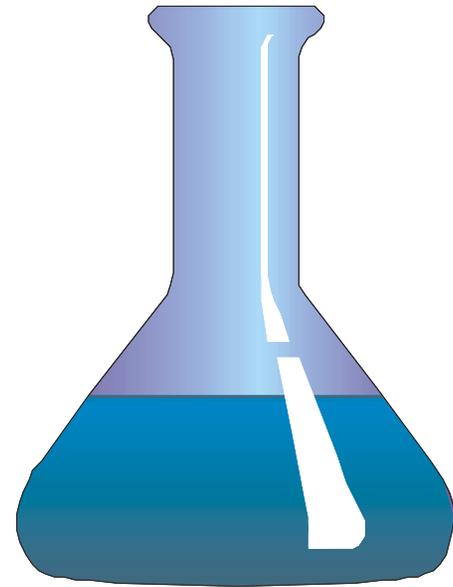
Reactivity (D003)



Toxicity (D004 – D043)

TOXICITY

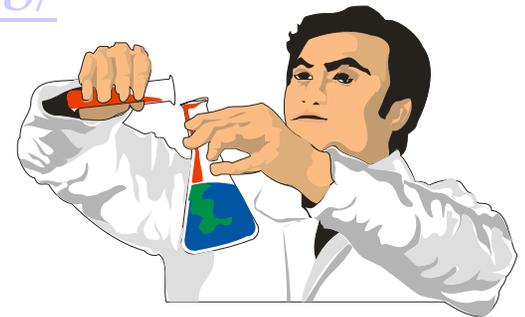
- Analyze using Toxicity Characteristic Leaching Procedure (TCLP) for one or all of the following:
 - Heavy Metals
 - Volatile Compounds
 - Pesticides/Herbicides



HAZARDOUS WASTE DETERMINATION

- Determinations can be made in two ways:
 - Knowledge of process (or Generator Knowledge)
 - MSDS Sheets (may not provide all info)
 - Testing by KDHE Certified Laboratory

<http://www.kdhe.state.ks.us/envlab/>



SOLID WASTE DISPOSAL

- Municipal Solid Waste Landfill (MSW) & 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 & Demolition Waste
- Industrial Landfill
 - Specific waste from a specific facility



UNIVERSAL WASTES

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

USED OIL

- Used oil that is recycled for energy or material recovery is not subject to the HW regulations
- Used oil can be burned in a space heater if:
 - The heater burns only used oil generated on-site or from Household do-it-yourselfers;
 - The heater is designed to have a maximum capacity of not more than 0.5 million Btu's per hour; and
 - The combustion gases from the heater are vented to the outside air.

USED OIL

- Used oil cannot be discharged onto the ground, into waterways or used as sealant, coating, or dust control agent for roads or parking lots

IMPENDING HAZARDOUS WASTE CHANGES

- Mixtures of hazardous waste and used oil will be regulated more consistently with EPA (40 CFR 279.10(b)(2))
- Quantity determination - Waste that will be recycled on-site (ex. solvent in a solvent still) will no longer have to be counted each time it is recycled, only on the first time that it will be recycled. 40 CFR 261.5
- Accumulation time limits for Kansas Generator's will be imposed so that we are at least as stringent as EPA

CONTACT INFORMATION

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QUESTIONS???