# Tank Management for Hazardous Waste Generators





What is a Tank?









### Division Definition for a Tank

### **DWMRC Conditions for Tank**

- 1. Tanks are devices that are portable and capable of being moved when empty, but can't be transported or moved when full or in use
- 2. Tanks are located and in use in a fixed or stationary location for greater than 90 days,



# Tank Management for Hazardous Waste Generators





What is a Tank?









## Small Quantity Generators – General Rules

### R315-262-16(b)(3) – Accumulation of Hazardous Waste in Tanks

- Cannot place waste in tanks that could damage the tank or liner
- Uncovered tanks need 60 cm. of freeboard or some type of containment with the same capacity (e.g. containment structure, drainage control, diversion structure, etc.)
- If waste is continuously fed into a tank, there must be a method to stop the flow
- Incompatible wastes cannot be stored in the same tank
- Waste cannot be stored in an unwashed tank that previously held incompatible wastes
- Ignitable or reactive waste cannot be placed in tanks



# Inspections are Daily or Weekly Depending on Facility Equipment

R315-262-16(b)(3) – Accumulation of Hazardous Waste in Tanks

- Daily
  - Discharge Control Equipment
  - Data from Monitoring Equipment
  - Level of Waste in each Tank
- Weekly
  - Integrity of the Tank
  - Integrity of the Secondary Containment



# Inspections are Daily or Weekly Depending on Facility Equipment

If your facility has full secondary containment <u>and</u> leak detection equipment or workplace practices

- Daily
  - Discharge Control Equipment
  - Data from Monitoring Equipment
  - Level of Waste in each Tank
- Weekly
  - Integrity of the Tank
  - Integrity of the Secondary Containment

- Weekly
  - Discharge Control Equipment
  - Data from Monitoring Equipment
  - Level of Waste in each Tank
  - Integrity of the Tank
  - Integrity of the Secondary Containment



## Small Quantity Generators – Labeling

### R315-262-16(b)(6)(ii) – Labelling and Marking of Tanks

- Mark or Label Tanks with the words "Hazardous Waste"
- Mark or Label Tanks with an Indication of the hazards
  - Hazardous Waste Characteristics
  - DOT, OSHA, or NFPA Hazard Communications
- Use inventory logs or equivalent to show hazardous waste is not in tank for more than 180 days



## Large Quantity Generators – General Rules

### **R315-262-17(a)(2)** – Accumulation of Hazardous Waste in Tanks

- Tanks must be certified by Professional Engineer
- Tanks and Ancillary Equipment must have Secondary Containment
- Cannot place waste in tanks that could damage the tank or liner
- Inspections Same as Small Quantity Generator
- Incompatible wastes cannot be stored in the same tank
- Waste cannot be stored in an unwashed tank that previously held incompatible wastes
- Ignitable or reactive waste cannot be placed in tanks
- Specific Spill/Leak Response Protocol
- Must manage all hazardous waste placed in tanks in accordance with the applicable requirements of 40 CFR 265 subparts AA, BB, and CC

## Surprise Bonus Presentation!!

- Subpart AA Air Emission Standards for Process Vents (40 CFR 265.1030 through 1035)
- Subpart BB Air Emission Standards for Equipment Leaks (40 CFR 265.1050 through 1064)
- Subpart CC Air Emission Standards for Tanks, Surface Impoundments, and Containers (40 CFR 265.1080 through 1090)



# Subpart AA Covers Process Vents for Hazardous Waste Recycling Systems

## **Applicability**

- 1. Specific Hazardous Waste Recycling Processes
- 2. Organic Concentration > 10 ppmw
- 3. Specific Categories of Units
- 4. Specifically Vents
- 5. Vents fitted with devices that are in compliance with CAA requirements are Exempt

Figure 15-2: Determining If Subpart AA Process Vent Standards Apply Do you treat or recycle hazardous waste via any of the following processes: 1. Distillation, No Subpart AA emission control 2. Fractionation, standards do not apply. 3. Thin-film evaporation, 4. Solvent extraction, 5. Air stripping, or Subpart AA emission control 6. Steam stripping? standards apply to the pro-Yes §§264/265.1030(b) cess vents associated with the equipment previously noted. No Does the hazardous waste contain at least 10 ppm by weight organics? No Yes §§264/265.1030(b) Are the process vents equipped with controls mandated by a Clean Air Act standard? Are any of the above-mentioned processes conducted in: §§264.1030(e), 265.1030(d) 1. Units that have interim status, a No RCRA permit, or are otherwise Yes subject to the permitting requirements of Part 270; Are the total organic emissions from No all process vents subject to Subpart 2. Recycling units at a facility that AA at the facility  $\geq 3$  lb/hr (1.4 kg/hr) has some other interim status or or ≥3.1 tons/yr (2.8 Mg/yr)? RCRA-permitted unit; or 3. A 90-day unit (e.g., a 90-day tank §§264/265.1032(a)(1) used for air stripping)? Yes §§264/265.1030(b)(1-3) Vents on these units are subject to Subpart AA.

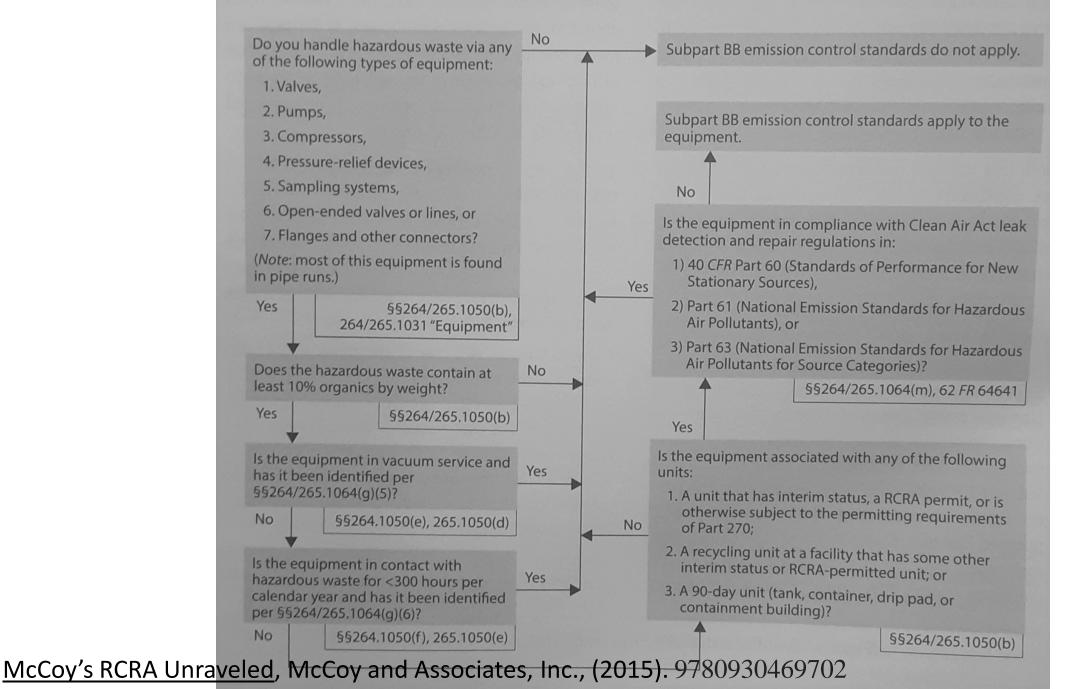
McCoy's RCRA Unraveled, McCoy and Associates, Inc., (2015). 9780930469702

# Subpart BB Covers Leaks from Process Equipment

### **Applicability**

- 1. Specific Process Units in contact with Hazardous Waste
- 2. Organic Concentration > 10 ppmw
- 3. In contact with Waste for > 300 hours per year
- 4. 90 Day Unit
- 5. Units in compliance with CAA LDAR provisions can elect to use them as compliance with RCRA

Figure 15-5: Determining If Subpart BB Fugitive Emission Standards Apply

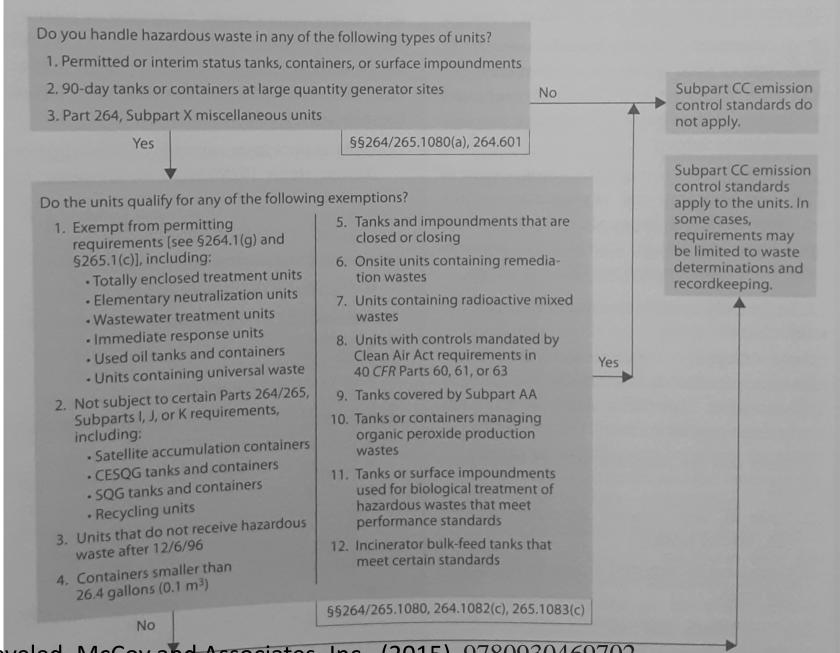


# Subpart CC Covers Volatile Organic Air Emissions from Tanks, Containers, and Impoundments

## **Applicability**

- 1. 90 Day Tanks and Containers for LQG
- 2. Volatile Organic Concentration ≥ 500 ppmw
- 3. Units that meet Subpart AA Requirements are Exempt
- 4. Units that are fitted with devices that are in compliance with CAA requirements are Exempt

Figure 15-7: Determining If Subpart CC Emission Control Standards Apply



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## Now Back to Our Tanks!



## Large Quantity Generators – Labeling

### R315-262-17(a)(5)(ii) – Labelling and Marking of Tanks

- Mark or Label Tanks with the words "Hazardous Waste"
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  - Hazardous Waste Characteristics
  - DOT, OSHA, or NFPA Hazard Communications
- Use inventory logs or equivalent to show hazardous waste is not in tank for more than 180 days



# Final Take-Aways

- 1. Any generator who stores hazardous waste in tanks needs to store the waste properly, inspect the tanks regularly, and properly label the tanks.
- 2. Be aware of Subpart AA, BB, and CC Emissions Regulations. Look through the flowcharts, and if you have questions please feel free to reach out to us.
- 3. Document! Being in compliance is only half the battle; you need to be able to prove you are in compliance.



# References / Further Reading

- McCoy's RCRA Unraveled, McCoy and Associates, Inc., (2015). 9780930469702
- Utah Annotated Code R315-262
- 40 CFR 265

