

# Accumulation & Labeling Requirements

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## Today's Goals

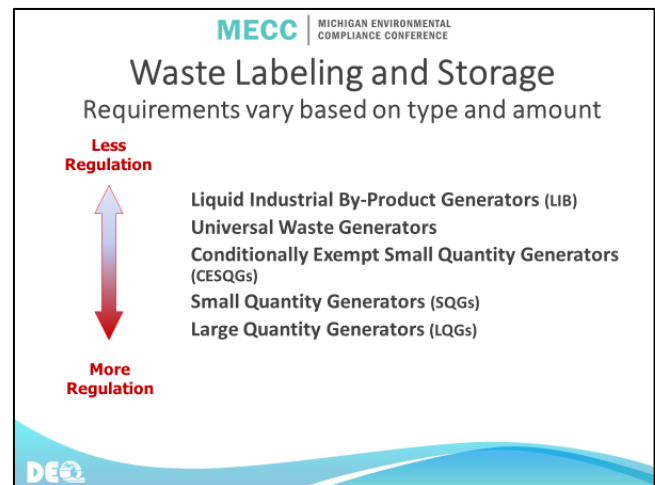
- Identify Generator Accumulation Requirements for:
  - Liquid Industrial By-Product Generators
  - Used Oil
  - Universal Wastes
  - Conditionally Exempt Small Quantity Generators
  - Small Quantity Generators
  - Large Quantity Generators
- Introduce Basic Applicability Concepts Related to:
  - Hazardous Waste Tanks
  - Subpart CC Rules

## Waste Regulations

- Act 451, Michigan Natural Resources & Environmental Protection Act:
  - Part 111, Hazardous
  - Part 121, Liquid Industrial By-Products
  - Part 115, Solid Waste
  - Part 169, Scrap Tires
- Act 368, Michigan Public Health Code:
  - Part 138, Medical Waste Regulatory Act
  - Part 2, Ionizing Radiation Rules
- Federal Toxic Substance Control Act (TSCA)

## Hazardous Waste Generators

- CESQG
  - Generate < 220 lbs. non-acute monthly
  - ~ ½ drum non-acute monthly
  - Never accumulate > 2,200 lbs.
- SQG
  - Generate > 220 lbs. & < 2200 lbs. non-acute monthly
  - ~ ½ drum to 5 drums monthly
  - Never accumulate > 13,200 lbs.
- LQG
  - Generate > 2200 lbs. non-acute or
  - > 5 drums monthly
  - > 2.2 lbs. acute



## Liquid Industrial By-Products Requirements

- Liquid industrial by-products must be placed in containers or tanks that are labeled or marked to identify their contents
- Liquid industrial by-products tanks and containers must be:
  - Kept closed or covered when not in use and free of by-product or residues on the exteriors
  - Protected from weather fire physical damage and vandals
  - Managed to prevent release to the environment
- Hazardous waste generated at a CESQG is managed as LIB Liquid industrial by-products

### Liquid Industrial By-Products Common Violations

- Unmarked containers
- Improper storage - i.e., container is left open
- Spills and leaks visible on containers and/or surrounding area

### Used Oil Requirements

- Container or above ground storage tank labeled “Used Oil”
- Fill pipes used to transfer used oil labeled “Used Oil”
- Stored in containers in good condition with no visible signs of leaks

### Used Oil Common Violations

- Container, above ground storage tank, or fill pipes not labeled or labeled correctly
- Spills and leaks visible on containers and/or surrounding area
- Open containers (funnels left in place, oil left in drain pans)

### Universal Waste Types

- Michigan universal waste types include:
  - Batteries
  - Pesticides
  - Mercury containing equipment
  - Lamps
  - Pharmaceuticals
  - Consumer electronics
  - Antifreeze

### Universal Waste Containers

- Containers must be:
  - Labeled correctly (specific to type of Universal Waste)
  - Kept closed (except Universal waste electronics)
  - Structurally sound
  - Compatible with the contents
  - Managed to prevent breakage/releases/losses to the environment
- Universal Waste Batteries
  - Containers must be labeled “Universal Waste Batteries,” “Waste Batteries,” or “Used Batteries”
- Universal Waste Electric Lamps
  - Containers must be Labeled “Universal Waste Lamps” OR “Waste Lamps” OR “Used Lamps”
- Universal Waste Mercury Containing Equipment
  - Containers must be labeled “Universal Waste-Mercury Containing Equipment,” “Waste Mercury-Containing Equipment,” or “Used Mercury-Containing Equipment”
- Universal Waste Pesticides
  - Containers must be Labeled “Universal Waste Pesticides” or “Waste Pesticides” and meet all tank requirements if using tank storage
- Universal Waste Consumer Electronics
  - Packaging must be labeled “Universal Waste Consumer Electronics” or “Universal Waste Electronics”
- Universal Waste Antifreeze
  - Containers must be labeled “Universal Waste Antifreeze,” “Waste Antifreeze” or “Used Antifreeze”
- Universal Waste Pharmaceuticals:
  - Recommended label “Universal Waste Pharmaceuticals”

### Universal Waste Common Violations

- Unlabeled or improperly labeled containers
- Lack of accumulation start dates or inventory records
- Improper storage - i.e., container is left open
- Accumulation over one year

### Small Quantity Generator Container Requirements

- Container Must:
  - Be labeled “Hazardous Waste”
  - Have accumulation date
  - Clearly marked with hazardous waste number(s)
  - Be in good condition
  - Stored closed
  - Handled & stored to prevent leaks
  - Be accumulated in an area protected from weather, fire, physical damage, and vandals
  - Be inspected weekly
  - Be compatible with the waste
  - Be separated from each other if incompatibles
  - Be washed if they previously held incompatibles
  - Have secondary containment if > 1000 kg (2,200 lbs.) or ~ 5 drums

### Large Quantity Generator Container Requirements

- Container Must:
  - Be labeled “Hazardous Waste”
  - Have accumulation date
  - Clearly marked with hazardous waste number(s)
  - Be in good condition
  - Stored closed
  - Handled & stored to prevent leaks
  - Be accumulated in an area protected from weather, fire, physical damage, and vandals
  - Not contain incompatible wastes
  - Be separated from each other if holding incompatibles
  - Be washed if previously holding incompatibles
  - Have secondary containment
  - Be inspected weekly with inspections documented (kept on-site 3 years)
  - Be stored 50 feet from property line if ignitable and/or reactive (written local FD approval if distance < 50 ft)

### Container Requirements Common Violations

- Not labeled as required
- Labels not visible
- Exposed to weather or vandals
- Lacking or inadequate secondary containment
- Inspections not documented

### Generator Accumulation/Storage Time Frames

- SQG's
  - Generate > 220 lbs. & < 2200 lbs. non-acute monthly
  - Accumulate not more than 13,200 lbs.
  - Store 180 days or less
- LQG's
  - Generate > 2200 lbs. non-acute or > 2.2 lbs. acute or severely toxic monthly
  - Store 90 days or less

**Secondary Containment - Same for SQGs\* and LQGs**

- Secondary Containment must:
  - Have an impervious base free of cracks
  - Be sloped or otherwise designed to elevate/protect containers from liquids
  - Hold 10% of total container volume or 100% of the volume of the largest container, whichever is greater
  - Prevent run on - unless of sufficient capacity
  - Have accumulated liquids removed to prevent over-flow
- \* if > 1000 kg (2,200 lbs.) or ~ 5 drums

**Satellite Accumulation - Same for SQGs and LQGs**

- Must be accumulated at or near the point of generation and under the control of the
  - < 55 gallons of hazardous waste (all types/all containers combined)
  - < 1 quart of acutely or severely toxic waste
  - Under the control of the operator
  - Labeled "Hazardous Waste"
  - Labeled with either the hazardous waste number(s) or chemical name
- Must be accumulated in containers that are:
  - < 55 gallons of hazardous waste (all types/all containers combined)
  - < 1 quart of acutely or severely toxic waste
  - Labeled "Hazardous Waste"
  - Labeled with either the hazardous waste number(s) or chemical name
- Containers must be:
  - In good condition
  - Compatible with the waste in them
  - Closed when not in use
  - Marked with date and moved to storage area within 3 days of exceeding 55 gallons non-acute or 1 quart severely/acutely toxic
  - Managed to prevent leaks

**Satellite Containers Common Violations**

- Containers not near the point of generation or under the control of the operator
- Containers not labeled appropriately
- Containers open
- Containers > 55 gallons

**Tanks - SQGs and LQGs**

- Subparts J & I – Tanks must:
  - Be labeled "Hazardous Waste"
  - Be marked with accumulation date
  - Not contain wastes which could cause rupture, leaks, corrosion or other failures
  - Be managed to prevent reactions that would threaten human health and the environment
  - Be decontaminated (washed) if they previously held incompatible waste before adding waste

**Tanks - Additional Requirements**

- Ignitable and reactive wastes (40 CFR 265.198)
- Controls and practices to prevent spills & overflows (40 CFR 265.194)
- Secondary Containment (40 CFR 265.193)
- Inspection Requirements and Records
- Tank Certification (40 CFR 265.192)

**Tanks - Inspection Requirement and Records**

- All tanks must be inspected each day, including overflow and spill control devices
- All tank inspections must be documented, and all documents must be kept for at least 3 years

**Tanks - Certification**

- Must obtain a written assessment that is reviewed and certified by a qualified professional engineer that includes:
  - Design standards
  - Hazard characteristics of the waste
  - Determination performed by corrosion expert if the external shell of a metal tank is in contact with soil or water
  - Design considerations if tank affected by vehicles
- “Qualified Professional Engineer” required
- “Independent” and “Registered” professional engineer is no longer required per change in adopted federal rules
- Written certification must be kept on file at the facility

**Tanks - Common Violations**

- Not labeled as required
- Inspections not conducted and/or documented
- No written assessment
- Written assessment not maintained onsite

**Subpart CC Rules**

- Purpose is to control air emissions from:
  - Permitted interim status tanks, containers, and surface impoundments
  - 90-day tanks and containers

**Subpart CC Rules- Applicability**

- Applies to LQGs and TSDFs
- Organics and volatile organics
- Must be a hazardous waste, not a product
- Organic concentrations > 500 parts per million by weight (ppmw)
- Containers larger than ~ 26 gallons
- CESQGs and SQGs are exempt

**Subpart CC Rules - Exemptions**

- Satellite equipment
- Onsite units containing remediation waste
- Wastewater treatment units
- Totally enclosed treatment units
- Units that receive radioactive mixed waste
- Units with controls mandated under the CAA

**Subpart CC Rules - Compliance Options**

- Documentation that the organic concentration of the waste is < 500 ppmw at point of origination, or
- Assume organic concentration is > 500 ppmw and manage waste in controlled units
  - No organic concentration determination needed
  - Many tanks already have controls
  - Containers are easy to control

**Subpart CC Rules**

- Tank standards: 40 CFR 265.1085
- Container Standards: 40 CFR 265.1087
- Surface Impoundment Standards: 40 CFR 265.1086