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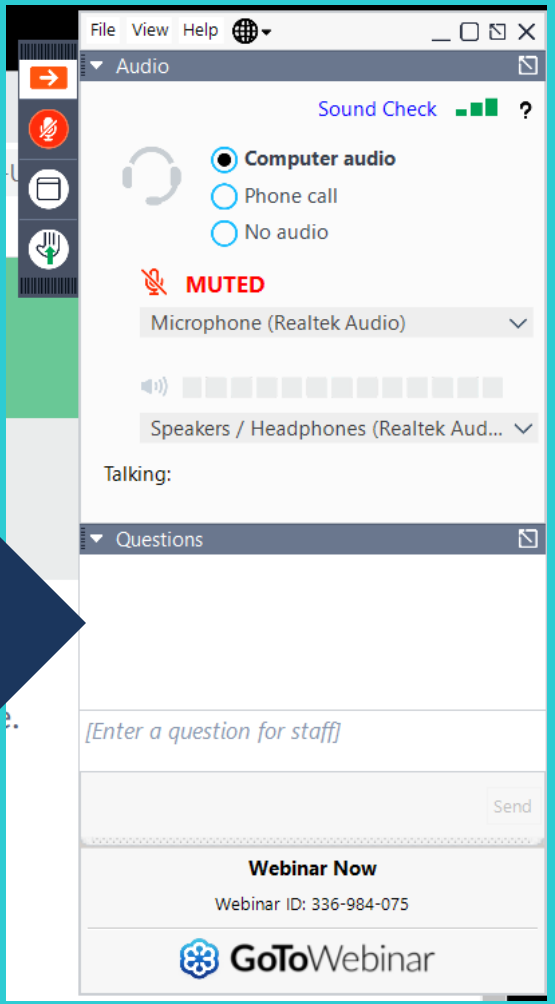
Inspecting Permitted Facilities & Following Permit Conditions

Webinar Hosted by the Corrective Action and Permitting Task Force of the ASTSWMO Hazardous Waste Subcommittee

May 21, 2020

How to Ask Questions

Type your questions here



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Inspecting Permitted Facilities & Following Permit Conditions

For Permit Writers

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So, You've been assigned a Permitted Hazardous Waste Site

- First, Don't Panic!

Preparing for a CEI at a Permitted Site

- Talk with your fellow Permit Writers
- Talk with the Facility Inspector

- What to talk about?
  - Status of the Permit (Under Renewal? Any Modifications?)
  - Are there any topics or areas of the site they need special attention during the CEI?
  - **Go on the Inspection!**

Preparing for a CEI at a Permitted Site

- Talk with the State's Waste Activity Audit Section
  - Are they up to date with their Biennial (or Annual) Reports
- Talk with the Enforcement Section
  - Is there any ongoing enforcement?
  - Are there any Order Conditions that would apply to this site?
  - Ongoing Controversial or Unresolved Issues

Preparing for a CEI at a Permitted Site

- **Read the Permit!** (yes, the whole thing)
  - Take Notes
    - Make note of Inspection Frequencies, Storage Capacities, Security, Record Keeping, etc.
    - Note special conditions like aisle space requirements (every Permit is different)
- Read the Last Inspection Reports
  - Make note of previous Violations and Observations
- Use your notes to create your own inspection checklist

The Permit is Everything (except when it's not)

- The Permit supersedes the Regulations

- Except when
  - The Regulations are directly referenced by the Permit
  - Dealing with areas of the site not covered by the Permit
    - Commercial TSDF tend to be generators also (may have SAAs and/or Storage Areas)
    - Used Oil Generation and Universal Waste Handling
    - Hazardous Waste Transfer Facilities

Inspection Day

- Have a Pre-Inspection Meeting at the Field Office before going to the Site

- Assign Roles

Inventory Log

TRADEBE CEI INSPECTION CONTAINER INVENTORY

Inspector Name:				Date:		Page:	
Unit	Area	Row	No. Containers	Gallons	Container Type	Comments and Notes	

1. Super Sacks & Gaylord Boxes = 1 cubic yard each = 200 gallons each

Storage in Containers

"Container" means any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

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Check for:

- **Aisle space and stacking height** – Based on the layout, can facility personnel safely move containers into and out of the storage area? What equipment are they using to move drums?

- **Ability to conduct inspections** – Can all containers easily be inspected? Are the containers arranged such that their labels can be read?

- **Standard operating procedures** – Are staff trained to keep containers closed and immediately label drums of hazardous waste?

- **Hazardous waste volumes** – Do total volumes match the proposed number and container sizes? Can the storage area accommodate that many drums?

Aisle Space

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Stacking

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Inventory of Containers

- How does the facility take an inventory of stored containers?
- How often does the facility take an inventory of stored containers?
- How does the facility ensure that the facility stores less than the maximum storage capacity for the permitted unit?
- How is the maximum storage capacity calculated?
  - Content of containers vs. capacity of containers

Management of Containers

- Condition of containers
  - Hazardous waste stored in containers that are not in good condition or begin to leak shall be transferred to containers that are in good condition, placed within an overpack container, or otherwise managed to comply with permit conditions
- Compatibility of waste with containers
- Management of containers
  - Containers shall be kept closed during storage, except to add or remove waste
  - Containers shall not be opened, handled or stored in a manner that would cause leakage or rupture

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SATELLITE
HAZARDOUS
WASTE

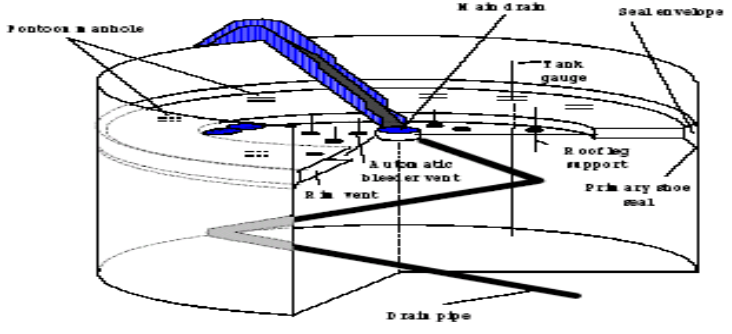
Containers

- Schedules and procedures for required inspections – make sure the facility's inspection checklist is appropriate and cite it in the permit language
- Recordkeeping – which records, how long must they be kept?
- Description of secondary containment systems (if required)
- Ignitable, reactive, and incompatible waste provisions (if needed) – buffer zones, compatibility testing, decontamination
- Closure – removal of all hazardous waste and residues

Types of Containers allowed in permitted storage units

Types of waste allowed in a permitted storage unit

Storage in Tank Systems



"Tank" means a stationary device, designed to contain an accumulation of hazardous waste which is constructed primarily of non-earthen materials (e.g., wood, concrete, steel, plastic) which provide structural support.

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The Permit Application for RCRA Tanks

- Detailed tank system description
  - Materials of construction, dimensions, capacity
  - Piping, instrumentation, and process flow diagrams
  - Feed system, bypass, and cutoff control descriptions
  - Overflow and spill prevention protocols
  - Secondary containment description
  - Corrosion protection detail, if tank system is in contact with soil or water
  - Site conditions that could impact tank performance

- Tank integrity and suitability assessment certified by an independent, qualified, registered professional engineer

Secondary Containment Systems for Tanks

- New tank systems: before being brought into service
  - Includes tanks and components that are reinstalled or replaced
  - Certain exemptions and variances from this requirement

- Existing tank systems: within 2 years after becoming subject to RCRA or when the tank is 15 years old, whichever is later

- Secondary containment is required before facilities can **newly use** an existing tank to manage hazardous waste

- Secondary containment must be able to contain 100 percent of the volume of the largest tank and the precipitation from a 25-year, 24-hour rainfall event

Operating Requirements

- The Permittee shall not place hazardous waste or treatment reagents in a tank system if they could cause failure of tank, ancillary equipment, or containment system
- The Permittee shall prevent spills and overflows from tank or containment systems using the equipment, controls, and procedures described in appropriate Permit Attachment
- Standard Operating Procedures should be provided in the Part B Permit Application for attachment to the Permit; once attached, these documents become part of the legal contract between regulatory agency and the Permittee

Integrity Assessments

- The Permittee shall conduct annual leak testing for non-enterable, underground tanks and ancillary equipment until required secondary containment is provided

- Leak test frequencies for other tank types will be determined by the Permit

- Integrity assessments shall be conducted after major repairs and before bringing the system back into service
  - With certification by a P.E.

Response to Leaks or Spills

- In the event of a leak or spill from the tank or secondary containment system, or if the tank system becomes unfit for continued use, the Permittee shall :
  - **Stop** hazardous waste flow into the system
  - **Inspect** the system to determine the cause of release
  - **Remove waste** and accumulated precipitation from the system within 24 hours of release detection
  - **Contain and remediate** visible releases to the environment
  - Initiate **formal RCRA closure, or repair** the tank system and/or affected components before returning the system to service – repairs must be certified

Permittee Reaction to Leaks/Spills

- The Permit should provide specific direction of expected responses to leaking tanks and components:
  - For a release that has not damaged tank system integrity, make necessary repairs to fully restore system integrity prior to return to service
  - For a release from the primary tank system to secondary containment, repair primary system prior to returning to service
  - For a release from components without secondary containment that cannot be visually inspected or are located below grade, provide secondary containment prior to returning component to service
  - For a release from above-grade component without secondary containment which can be visually inspected, repair tank system prior to returning to service

Special Tank Provisions for Incompatible Wastes

- Incompatible wastes, or incompatible wastes and materials shall not be placed in the same tank system or secondary containment system unless specified procedures are followed which comply with 40 CFR 264.17(b) and 40 CFR 264.199(a).

- Hazardous waste shall not be placed in a tank system that previously held an incompatible waste unless precautions in 40 CFR 264.17(b) are met and the tank has been decontaminated.

Miscellaneous Permit Conditions

- The Permit should detail required inspection frequencies for tanks, components, monitors, alarms, and cathodic protection systems
  - Inspection checklists from the Part B Permit Application can be included as a Permit Attachment
- The Permittee shall notify the agency of any tank systems or components found to be leaking or unfit for use within 24 hours
  - A follow-up report on risks and responses shall be provided to the agency within 30 days
- The Permittee shall maintain all tank system engineer certifications, tank integrity test results, and leak test results on site for a period of 3 to 5 years.
- Permits can also include future compliance schedules for document submission that may not be available until tank is constructed

Closure and Post-Closure Care

- At closure of the tank systems covered by the permit, the Permittee shall follow the Closure Plan procedures provided in the Closure Plan and Post-Closure Plan, of the permit.

- Contingent closure and post-closure care procedures in the Closure Plan and Post-Closure Plan must be followed if it is demonstrated that not all contamination can be practically removed or decontaminated.
  - Note that a Contingent Post-Closure Plan is required at permit issuance if no secondary containment system is present.

RCRA Organic Air Emission Standards

- 264/265 Subpart AA – Air Emission Standards for Process Vents
  - Hazardous Waste Chemical/physical separation equipment including: Distillation units, Fractionation units, Thin-film evaporation units, Solvent extraction units, Air stripping units, Steam stripping units
  - Containing ≥10 ppmw organics
- 264/265 Subpart BB – Air Emission Standards for Ancillary Equipment
  - Hazardous Waste Equipment including: Valves, Pumps, Compressors, Pressure-relief devices, Sampling ports, Flanges
  - ≥10% by weight Organics
- 264/265 Subpart CC – Air Emission Standards for Tanks, Containers, and Surface Impoundments
  - ≥500 ppmw Average Volatile Organics (VO)

Some of the Exemptions to Subpart CC Rules

- Wastewater treatment units
- Elementary neutralization units
- Emergency or spill management units
- Totally enclosed treatment facilities
- Very Small Quantity Generators
- Small Quantity Generators
- Satellite accumulation units
- Containers that are smaller than 26.4 gallons (0.1 m^3)
- RCRA Empty Containers

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Containment Buildings

Drip Pads

- Drip pads are constructed of non-earthen material, curbed base, and liquid drainage
- Pads must have a hydraulic conductivity of $\leq 1 \times 10^{-7}$ centimeters per second, OR be equipped with a underlying liner and leak detection/collection system
- Owners/operators must conduct initial and annual integrity assessments of the pad

"Drip pad" is an engineered structure consisting of a curbed, free-draining base, constructed of non-earthen materials and designed to convey preservative kick-back or drippage from treated wood, precipitation, and surface water run-on to an associated collection system at wood preserving plants.

Treatment

- Definition: Any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of hazardous waste so as to neutralize such waste, or as to recover energy or material resources from the waste, or so as to render such waste non-hazardous, or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage, or reduced in volume.
- Hazardous Waste can be treated onsite (except thermal treatment) in tanks and containers without a permit

Treatment Examples

- Elementary Neutralization
- Fuel Blending
- Stabilization/Solidification
- Evaporation
- Polymerization
- Incineration

Miscellaneous Units

- Permitted Units that treat waste and do not meet the definition of a Tank or Container
- 264/265 Subpart X
- Examples: Drum Shredding Units, Metal Wash Units, Waste Piles, Surface Impoundments

Corrective Action Sites

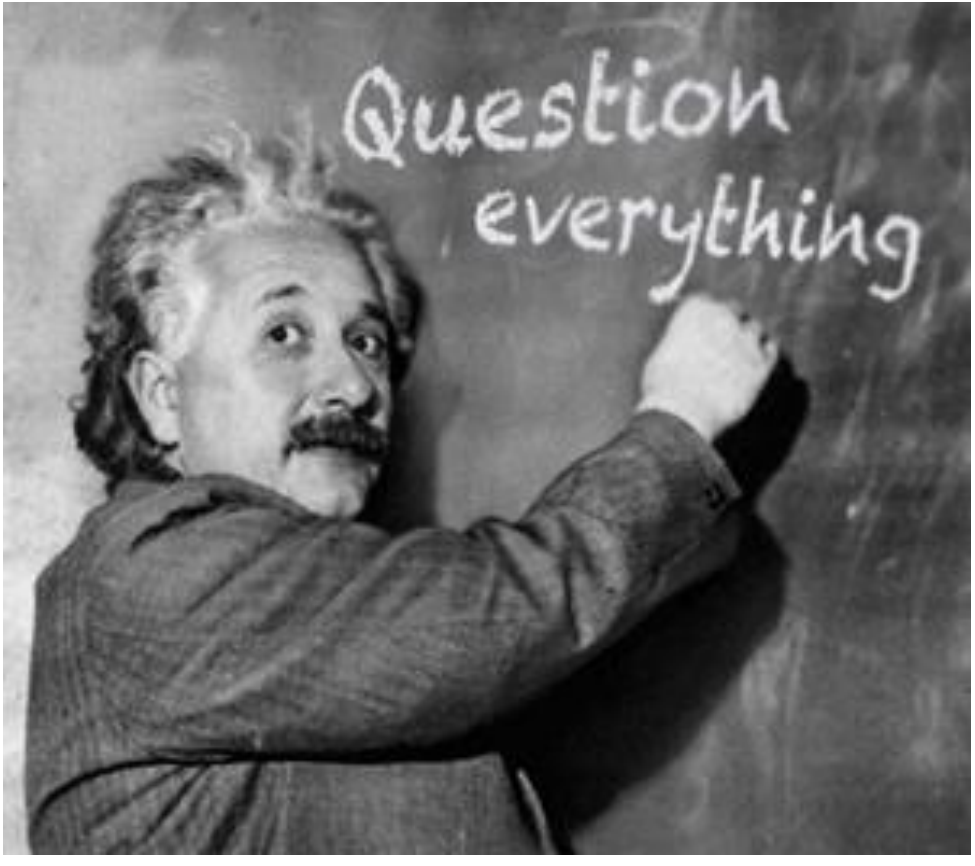
- Remediation Activities can generate hazardous waste
- Corrective Action Permits can have requirements for security (e.g. fences and signs) and inspection requirements (e.g. monitoring wells and Corrective Action Manage Units (CAMUs))
- Corrective Action Permits can be part of a storage and treatment permit or it can be a separate permit

Post-Inspection

- While writing the Inspection Report, the Inspector should make note of inconsistencies and deficiencies in the Permit and send the Permit Writer comments.

- The Permit Writer should take note of errors

Questions?



The End.
Thank You!