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**TLLRWDCC Generator Workshop**  
**WCS Compact Waste Disposal**  
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# Introductions

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# WCS Current Facilities



LSA Pad

Federal Facility

Byproduct Facility

Compact Facility

Hazardous Waste  
Landfill

Administration Buildings and  
Treatment Facility





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# Compact Waste Facility

The Compact Waste Facility (CWF) is for Compact Waste.

*Compact Waste* is waste that is generated in Texas or a party state (VT) or waste that is not generated in Texas or a party state (VT), but has been approved for importation to Texas by the Texas Low-Level Radioactive Waste Disposal Compact Commission (TLLRWDCC)



# CWF Authorized Waste

Class A, Class B and Class C containerized waste



Container examples include drums and metal boxes



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# CWF Authorized Waste

Most power plant waste is packaged in liners  
and shipped in transportation casks



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# Waste Packaging

- All DOT compliant containers that fit into the Modular Concrete Canisters (MCCs) are acceptable
- Drums exceeding 1,000 lbs. are required to be palletized and banded for offload and the Compact Waste Facility



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# Modular Concrete Canisters

- Reinforced concrete
- Meet 10 CFR Part 61 stability requirements for disposal of Class B and C waste
- Cylindrical MCC
  - 6'8" D x 9'2" H (ID)
- Rectangular MCC
  - 9'6" L x 7'8" W x 9'2" H (ID)







# CWF Authorized Waste

- Large Components
  - Additional Requirements including a Large Component Plan that is reviewed by TCEQ
  - Plan must be submitted at least 90 days prior to shipment





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# Transportation

## Truck or Rail



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# CWF Waste Acceptance Criteria (WAC)

- Void Space
  - Less than 15% by volume for each container
- Free Liquids
  - Less than 1% by volume per container
- Chelating Agents
  - Limited to 8% by weight for each waste stream





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# CWF Waste Acceptance Criteria (WAC)

- Absorbents
  - Must be non-biodegradable
- Specific packaging criteria
  - Sealed Sources
  - Biological waste
  - Radioactive gases



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# CWF Waste Acceptance Criteria (WAC)

- Prohibited Waste
  - International Waste
  - Naturally Occurring Radioactive Material (NORM) waste
  - By-product waste (11.e.2)
  - Spent fuel
  - Oil or petroleum products
  - Uranium hexafluoride
  - RCRA hazardous or Low Level Mixed Waste



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# CWF Waste Acceptance Criteria (WAC)

- Prohibited Waste continued
  - Waste cannot contain or be capable of generating quantities of toxic gases, vapors or fumes harmful to persons transporting, handling, or disposing of the waste
  - Waste must not be pyrophoric





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# CWF Waste Acceptance Criteria (WAC)

- Certifications/Registrations
  - WCS requires each generator to be certified to ship waste to the Compact Waste Facility
  - DSHS requires registration of every shipper and transporter that ships and delivers waste to the Compact Waste Facility



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# Waste Profiles

- The Generator is required to complete a waste profile for each waste stream that they want to send to the Compact Waste Facility
- Each profile is reviewed by WCS to determine compliance with licenses and permits
- If the profile complies with all applicable licenses and permits, the profile is approved



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# Shipment Request

- The generator is required to submit a shipment request for each waste shipment they want to send to WCS
- WCS reviews the shipment information and compares it to the information provided by the generator in the waste profile
- If the shipment is approved, WCS provides a scheduled date and time for shipment receipt





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# CWF Notifications

- Generator Shipment Notifications
  - Neutron and Nationally Tracked Sources
  - Texas Commission on Environmental Quality (TCEQ)
  - Texas Dept. of State Health Services (DSHS)
  - NRC has specific requirements that include notifications for Category I and Category II shipments under 10 CFR Part 37
  - If the waste is out of compact waste, notifications may be required to the TLLRWDC in accordance with the import agreement



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# Receipt and Verification

At the time of receipt, WCS will perform the required receipt inspections and verification processes to ensure the waste is compliant with the waste profile, shipping documents, and applicable licenses and permits.

TCEQ has 2 on-site inspectors at WCS to perform additional inspections and verifications



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# Disposal at the CWF

Within 7 days of receipt, WCS will dispose of the waste containers in a MCC at the Compact Waste Facility. The State of Texas takes title to the waste that is disposed in the CWF.







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# Disposal

Once the waste containers are placed in a MCC, they are grouted in place.



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# Other WCS Capabilities

- Waste processing at the Treatment, Storage, and Disposal Facility (TSDF)
  - Encapsulation of sealed sources
  - Dewatering/void fill
  - Volume reduction
  - RCRA hazardous waste treatment
  - Solidification
- Low Activity Waste disposal in RCRA Subtitle C Landfill



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# Questions?