



# OTHER CHALLENGES

**Sustainable Storage Systems**

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# Receipt Dose Rates

- Package exceeded 200 mrem/hr
  - Contact dose rate upon arrival @ waste processor was 500 mrem/hr
    - Shifting of higher dose rate bags inside Cargo Container
    - Ion Chamber was used for out-going survey while incoming was performed with a GM
- Package on flatbed manifested out with a 300 mrem/hr contact reading
  - Shipper was distracted, had manifested shipment prior to final radiation survey and failed to complete Shipment QC checklist before shipment left site

# Receipt Dose Rates

- A U.S. Utility shipped a package containing contaminated filters to a disposal facility; upon receipt ...
  - discrepancy noted between radiation levels specified in the shipping manifest and dose rates measured on the shipping container.
    - Seven times higher
    - Package was rejected and returned to the utility
  - Ongoing investigation
- <https://www.nrc.gov/docs/ML1635/ML16351A121.pdf>

# Custom Packaging

- At times you need to fit the package to the waste.
- Some reasons not to perform segmentation of the waste
  - Size of waste i.e., can be transported directly,
  - radiological conditions,
  - site footprint or location onsite,
  - disposal site pricing and acceptance criteria, and
  - 2015 BTP on concentration averaging.
- Key to perform transportation feasibility upfront

# Fermi U1 LRV





# 309 Fuel Examination Cell Package





# 340 Waste Tank Vault

