

Peach Bottom Shipping Manifest Issue

Restatement of Apparent White Finding

- On June 28, 1999, Peach Bottom shipped radioactive waste material to Chem Nuclear Systems, Barnwell, South Carolina, that had not been properly classified and characterized as required by 10 CFR 61.55.
- This issue has a low to moderate safety significance because accurate waste characterization is necessary for the proper disposal of radioactive waste materials.' and is classified as "White" under the SDP process
- In accordance with NRC Enforcement Policy and Significance Determination Process this matter is considered an apparent violation. (AV 50000277/2000-002-01; 50000278/2000-002-01, EA-00-125)

Key Messages

 Issue was not an actual or potential risk to the public

 Issue was captured by the Licensee's Corrective Action process and effectively resolved

 Request NRC to consider changes to the Public Radiation Safety Cornerstone SDP

Facts on Issue - Onsite Prep

- Dose rate measured prior to shipment indicated the unshielded liner for the shipping cask was 176 R/hr contact and 9.5 R/hr at 3 meters
- A Type B container was deliberately ordered for the shipment
- Curie content was 99.6 Ci
- Mismatch in curie content versus Rad levels recognized, therefore sample card was recounted
- Impractical to retrieve another sample from liner due to ALARA concerns
- Shipment was made with Curie content and Rad level mismatch
- Shipping manifest error was not detected
- Resin was packaged in a high integrity container
- Type B container was leak tested prior to shipment

Consequences - Onsite Prep

- No actual or potential consequences existed
 - Decision was made to not expose individuals to the high rad levels associated with obtaining another sample (ALARA)
 - Indeterminate where representative sample from HIC could be obtained
 - No perceived consequences for shipment transport or burial, since container would be the same and the burial condition would be the same

Facts on Issue - Transport

Shipped in Type B container

- Shipment of RWCU resin always goes to Barnwell
- No purchase order with or authorization to ship RWCU resin to Envirocare
- Shipped with incorrect shipping papers

Consequences - Transport

No actual or potential consequences existed

- No impact to public, since shipping container and dose rates were within regulations
- No increase in risk if a accident occurred, since shipment was made in the proper cask. Shipping cask is designed to retain its integrity in event of a traffic accident.

Facts on Issue - Burial

- Barnwell identified a shipping paper error. (Error was identified through the recorded Rad levels)
- Barnwell disposed of shipment into correct trench (B/C trench based on Rad levels)
- Barnwell stabilizes all shipments of this type (high activity resin)

Consequences - Burial

No actual or potential consequences existed

- Occupational Exposure
 - Dose rates on shipment were correct
 - Barnwell has redundant radiological controls in place
- ◆ Public Exposure
 - There were no increase in the potential releases to the ground water
 - Shipment of this nature is always stabilized per Barnwell state license requirements

Facts on Issue - Corrective Action

- Barnwell notified PECO of paperwork error
- PECO took action to correct, and did investigation into issue. During course of investigation it was identified by PECO that curie content was incorrect and other transport papers were in error
- All issues associated with the shipment were captured into Corrective Action Program
- Corrective Action Program properly identified issues, resolved issues, and prevented recurrence

Considerations

- Issue did not involve consequences and was not risk significant
- Corrective Action program was effective in identifying issue, investigating issue, resolving and preventing recurrence of issue
- Classifying issue as white in absence of risk is inconsistent with the new process