Disposition of
Non-Fuel Bearing Components
from the
Dry Rod Consolidation Technology Project

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Background

- The Dry Rod Consolidation Technology (DRCT) Project was performed for OCRWM in 1987, to investigate consolidation of spent nuclear fuel before storage in the Geological Repository or a Monitored Retrievable Storage (MRS) facility.

- The spent fuel rods from 48 Westinghouse 15 x 15 PWR fuel assemblies were consolidated into 24 canisters.

- The non-fuel bearing components remaining from these 48 fuel assemblies were placed in the Test Area North (TAN) Storage Pool and now must be addressed.
There are three reasons to remove these components from the TAN Pool

- Avoid the ongoing costs of the pool storage.
- Uncertainty in future storage costs.
- Department of Energy (DOE) has decided to close the pool by the year 2000.
Waste Characterization

Radiological analysis determined:

- Grid spacers and upper end fitting hold-down springs are DOE Special Case Waste (equivalent to commercial Greater-than-Class C) due to niobium-94 content.

- Lower end fittings are Special Case Waste due to nickel-63.

- Upper end fittings, guide tubes, and borated aluminum poison rods are Low Level Waste.
Waste Disposition

- Special Case Waste will be placed in stainless steel drums and stored in shielded underground concrete vaults.

- Low Level Waste will be placed in carbon steel drums and disposed of in shielded soil vaults.

- All drums are UN/1A2 certified metal drums.
Waste Processing

- Upper end fitting hold-down springs removed.
- Remote operated shear designed and tested on mockup assemblies.
- Assemblies sheared and components separated.
Waste Transportation

- Route includes 5 miles of public highway.
- Nuclear Regulatory Commission (NRC) licensed transportation cask will be used.