

**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.