Advanced Mixed Waste Treatment Project
Idaho National Engineering and Environmental Laboratory

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AMWTP Mission

- Prepare 65,000m³ plutonium-contaminated waste for shipment to permanent disposal in New Mexico.
  - 55,000m³ is located in the Retrieval Enclosure under an earthen-covered berm.
  - 10,000m³ is located in the Type II Storage Modules.
- Support DOE in Meeting their Court-mandated milestones in the Settlement Agreement Between DOE, the State of Idaho, and the U.S. Navy
Where Did the Waste Come From?

Rocky Flats  ANL-E  Mound Bettis
INEEL: ANL-W NRF INTEC  Battelle

Waste Inventory at AMWTP

<table>
<thead>
<tr>
<th>Waste Type</th>
<th>Approximate # of Drums</th>
<th>Approximate # of Boxes</th>
<th>Approximate Cubic Meters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-debris (eg. Process Sludge)</td>
<td>80,000</td>
<td>0</td>
<td>16,500</td>
</tr>
<tr>
<td>Debris (eg. Metals, Plastics)</td>
<td>66,000</td>
<td>11,000</td>
<td>48,500</td>
</tr>
</tbody>
</table>
Waste Containers
Approximate Date: 1970

AMWTP Retrieval
Process Optimization

- Waste Containers Segregated and Stored By:
  - Type (eg. Drum, Box, etc.)
  - TRAMPAC Waste Type (eg. IHS, OHS, Solid Organic, Solid Inorganic)
  - Waste Group (eg. Combustibles, Metals, Filters)
  - Weight
  - Radioactive Concentration
- AMWTP Process Optimization System Plans:
  - Storage Array Location
  - Direct Ship Payload Assembly
  - SuperCompactor Feed Sequence
  - Puck Drum Payload Assembly

Treatment Facility
AMWTP Central Drum Handling Corridor

AMWTP Super Compactor
AMWTP Super Compactor Glovebox

Pucks
AMWTP Characterization

X-Ray Image

Radiography
AMWTP Characterization

- Drum Vent System/Headspace
- Gas Sampling And Analysis
AMWTP Characterization

Drum Core Sample Retrieval System

AMWTP Direct Ship

TRUPACT SHIPMENTS
AMWTP North/South Box Lines

AMWTP Drum Repack System/ Special Case Waste
AMWTP Super Compactor
Glove Box