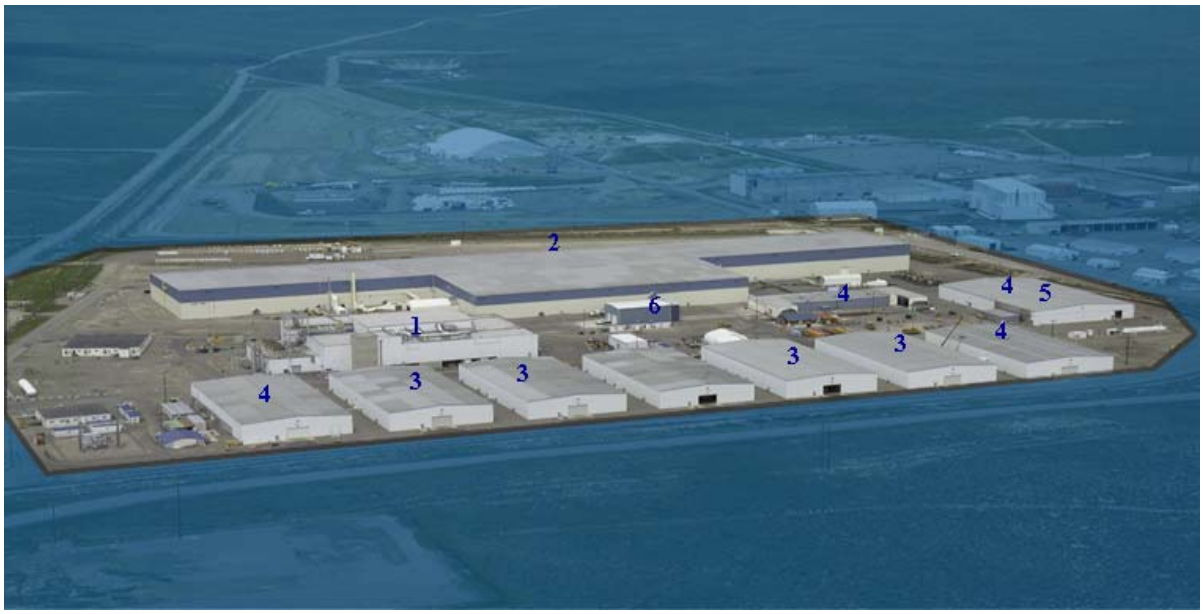
Advanced Mixed Waste Treatment Project vs. Nuclear Power Plants
Implications of Japanese earthquake and tsunami



Treatment – 1	Characterization – 4
Retrieval - 2	Payload – 5
Storage – 3	Shipping - 6

The recent earthquake, tsunami, and subsequent nuclear crises in Japan have renewed focus and concerns regarding the safety of the nuclear industry. The U.S. Department of Energy and Bechtel BWXT Idaho take these concerns very seriously and are confident in the safety of the Advanced Mixed Waste Treatment Project (AMWTP).

AMWTP facilities are conservatively designed and were constructed to withstand the natural phenomena of eastern Idaho, which include earthquakes, range fires, wind storms and other external hazards. The site's defense-in-depth protection from these hazards includes redundancy in protection systems, and rigorous operating procedures that address different event scenarios.

Historic seismic activity has occurred in the surrounding mountains north and west of AMWTP, but has not resulted in any damage to the project's facilities. AMWTP's facilities were designed to comply with 1991 Seismic Zone 2 standards. These standards were based, in part, on the Borah Peak earthquake of 1983, which at 6.9 magnitude was Idaho's largest earthquake, according to the United States Geological Service. The Borah Peak earthquake caused two deaths and an estimated $12.5 million in damage in the Challis-Mackay area.

All radioactive waste stored and treated at AMWTP is transuranic waste, which is significantly less radioactive than the high-level radioactive fuel rods at the Japanese plants. It has been stored at the Department of Energy's Idaho site for more than 40 years. Today, only about 10 percent of this transuranic waste remains in its original boxes and

drums. These containers are stored under an earthen berm, inside of a metal containment building (#2 in the picture, of the Transuranic Storage Area-Retrieval Enclosure).

Were the TSA-RE building compromised and dirt removed from the containers, a worst case scenario would involve the toppling of boxes and drums combined with a fire. The resulting radiological and hazardous material release is below the Department of Energy evaluation guidelines for both radiological and hazardous materials.

Waste that has been previously retrieved and is awaiting treatment has been placed in new, sturdy metal drum overpacks and stored in metal buildings (#3 in the picture). It is placed in a configuration that eliminates any chance of a nuclear reaction.

Key Differences between Nuclear Power Plants and AMWTP:

- Nuclear waste at AMWTP does not have high residual decay heat that requires cooling. Nuclear fuel at power plants has high residual decay heat that requires long term cooling.
- Operations at AMWTP are conducted in normal atmospheric conditions, compared to nuclear power plants that operate at approximately 1000 pounds per square inch or greater and 500 degrees Fahrenheit or greater.
- The types of reactions at nuclear power plants can produce hydrogen much faster and at much greater quantities than at AMWTP.

External Flooding Hazards for WTP:

- There are no credible external flooding hazards that could directly impact AMWTP, including a scenario involving the hypothetical failure of the Mackay Dam.

Background:

Bechtel BWXT Idaho manages and operates the Advanced Mixed Waste Treatment Project for the U.S. Department of Energy at the Department's Idaho Operations site.

Workers at AMWTP focus on the safe and compliant retrieval, characterization, treatment and shipment of 65,000 cubic meters of legacy stored contact handled transuranic contaminated waste for permanent disposal at sites outside of Idaho and to support the receipt and processing of transuranic waste from other DOE sites for shipment to the Department's Waste Isolation Pilot Plant.