

## **JNFL Begins Production of Vitrified Packages**

**On November 5, Japan Nuclear Fuel Ltd. (JNFL) began functional testing of the glass melting furnace at its Rokkasho Reprocessing Plant, thus beginning the production of vitrified packages.**

The vitrification process separates uranium and plutonium from fission products in the separation building, and solidifies the fission products in a borosilicate glass. With the start of testing in the high-level radioactive liquid waste (liquid HLW) vitrification building, active testing at the reprocessing plant has entered the final stage.

Vitrification at the Rokkasho Reprocessing Plant is characterized by the unique process developed by the Japan Atomic Energy Agency (JAEA) at its Tokai Reprocessing Facility: the liquid-fed ceramic melter (LFCM). First, borosilicate glass is melted by Joule-heating (heating by passing an electric current directly through the material) in the ceramic melter, itself highly resistant to heat and corrosion. Next, the liquid HLW is fed in. Finally, the solution is poured into a canister.

JNFL began operation of the glass melting furnace on November 4, with HLW solution poured into canisters the next day.

The canisters filled with HLW solution will be covered and sealed by welding. After being inspected to confirm confinement, etc., they will be moved to the Vitrified Waste Storage Center. JNFL plans to produce well in excess of a hundred packages in the active testing.

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