

The logo for DOE NEWS. The letters 'DOE' are in a large, bold, blue serif font, and 'NEWS' is in a smaller, bold, blue sans-serif font. The text is set against a background of horizontal blue lines.

MEDIA CONTACT:
Erik Olds (509) 372-8656

FOR IMMEDIATE RELEASE:
August 14, 2007

Energy Department Certifies Seismic and Ground Motion Criteria for Hanford's Waste Treatment Plant

*Office of River Protection Directs Construction to Resume on Pretreatment and High Level Waste
Facilities within 30 Days*

The U.S. Department of Energy's Office of River Protection today directed that construction of the Pretreatment and High Level Waste facilities begin within 30 days. This follows extensive analysis of seismology data collected from deep boreholes drilled in 2006 at the Hanford Site and reviewed by leading industry, academic, and Army of Engineers experts in deep borehole drilling, data collection and seismic response data. As required by Section 3120(b)(3) of the John Warner National Defense Authorization Act for fiscal year 2007, Secretary of Energy Samuel W. Bodman has approved the final seismic and ground motion criteria – the values used to design the plant's structures and equipment to withstand earthquakes.

“This certification marks the end of a two-year project to plan, collect and analyze new geological data necessary to complete the design and construction of one of the largest and most complex nuclear facilities in the DOE,” Assistant Secretary of Energy for Environmental Management Jim Rispoli said. “In addition to certifying to Congress that this criteria as final, we are directing Bechtel to use this criteria for the final design for the Waste Treatment Plant.”

DOE announced last year that it would suspend construction on the Pretreatment and High-Level Waste Vitrification facilities to validate the design with more stringent seismic criteria. Bechtel National Inc., the company designing and building the WTP, suspended construction on these two facilities, but continued construction on the WTP's Low-Activity Waste Vitrification facility, Analytical Laboratory and Balance of Facilities.

Following a recommendation from the Defense Nuclear Facilities Safety Board to enhance its design, DOE developed a plan to gather additional data and analysis to address remaining questions on the probability of earthquakes and adequacy of the seismic model used for construction of these facilities.

In 2006, DOE hired PNNL to drill four deep boreholes to depths of approximately 1,400 feet directly on the WTP construction site. Core samples and direct geophysical and seismic data were collected in 2006 and early 2007. PNNL led a team of local and national industry experts and leading

universities with expertise in deep borehole drilling, data collection, and seismic response analysis. Experts from the U.S. Army Corps of Engineers and other independent consultants reviewed and provided recommendations during the project.

“Confirming the seismic criteria for the WTP has been one of the Department’s top priorities and one of the toughest technical challenges of this project over the past two years,” said Office of River Protection Acting Manager Shirley Olinger.

The supporting PNNL reports based on their data *Updated Site Response Analysis for the Waste Treatment Plant*, *Site Specific Velocity and Density Model for the Waste Treatment Plant, Hanford, Washington*, and *Geology of the Waste Treatment Plant Seismic Boreholes* can be found at the ORP website at <http://www.hanford.gov/orp/?page=60&parent=55>.

Construction of the WTP began in 2002 with large placements of concrete and structural steel. The original seismic design basis was established in 1999 and was based upon a probabilistic seismic hazard analysis completed in 1996.

The WTP will be an industrial complex of facilities for separating and vitrifying (immobilizing in glass) millions of gallons of radioactive and chemical wastes stored at the Hanford Site. The five major components of the WTP will be the Pretreatment Facility for separating the waste, the High-Level Waste Vitrification and Low-Activity Waste Vitrification facilities where the waste will be immobilized in glass, the Analytical Laboratory for testing physical and chemical properties of the waste at different stages to ensure the quality of the glass, and the Balance of Facilities which will comprise over 20 various support facilities. Once complete, the WTP will be the largest and most capable facility of its kind in the world.

###

ORP-010-07