THE HANFORD SITE

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Media Contacts:
Staci West, Bechtel, (509) 378-0308, sawest@bechtel.com
Geoff Tyree, DOE, (509) 376-4171, geoffrey.tyree@rl.doe.gov

Hanford Completes Construction of Last 94 Systems in Low-Activity Waste Facility

RICHLAND, Wash.- The Department of Energy's (DOE) Office of River Protection and contractor Bechtel National, Inc. (BNI) have completed construction of the last of 94 systems in the Low-Activity Waste Facility at Hanford's Waste Treatment and Immobilization Plant.

"Workers continue to make good progress at the Waste Treatment and Immobilization Plant," said Tom Fletcher, DOE assistant manager for the project. "Completing construction of the nearly 100 systems at the Low-Activity Waste Facility and moving forward with startup testing of the systems are important steps in our preparations to treat tank waste at Hanford."

The systems include a mechanical line for moving empty containers below melters where they will be filled with tank waste that has been vitrified, or immobilized in glass. This video shows treatment plant crews testing the container handling system.

As construction of the systems has been completed, they have been turned over to a startup testing team to ensure they work properly prior to commissioning. Of the 94 Low-Activity Waste Facility systems, about a third of them have been tested and handed over to plant management for commissioning.

The facility is the size of one-and-a-half football fields and houses two large melters. The melters will vitrify low-activity tank waste that will be pretreated to remove cesium and solids at the tank farms and fed directly to the facility. The approach, called Direct-Feed Low-Activity Waste, is a system of interdependent projects and infrastructure improvements, managed and highly integrated as a program, that must operate together successfully to vitrify Hanford's low-activity tank waste.

The next goal for completing construction and turning over Waste Treatment and Immobilization Plant facilities to startup testing is the Low-Activity Waste Facility itself, and DOE and BNI are expected to reach that goal in the next few weeks.

Earlier this year, Waste Treatment and Immobilization Plant staff finished startup testing at the plant's Analytical Laboratory, which will analyze up to 3,000 samples of waste each year to make sure it meets disposal requirements. Another 14 support facilities that provide utilities such as power, compressed air, and steam are near the end of startup testing and are nearly ready for commissioning.

Startup testing verifies that the equipment and systems are functional and in safe working order before being handed over to plant management for commissioning. The commissioning phase ensures the utilities, equipment, and process systems are integrated and ready to support future Direct-Feed Low-Activity Waste operations.

"The perseverance of our entire team this year has been amazing to get where we are today," said Valerie McCain, project director and senior vice president of Bechtel. "This accomplishment wouldn't have been possible without our entire team's commitment to quality, safety, and progress."

A Waste Treatment and Immobilization Plant worker walks along the transfer line in the basement of the Low-Activity Waste Facility. This system and all others in the facility have been completed and turned over for startup testing before being handed over to plant management for commissioning.

The Department of Energy (DOE) is engaged in one of the great public works of this century at the Hanford Site near Richland, Washington. Responsible for the federal government's cleanup of the legacy of more than 40 years of producing plutonium through the 1980s, DOE is transforming the site back into a 24/7 operations mode to treat tank waste from the production era. The DOE Office of River Protection (ORP) is responsible for the safe and efficient retrieval, treatment and disposal of the 56 million gallons of chemical and radioactive waste stored in Hanford's 177 underground tanks. The mission includes building and commissioning the world's largest radioactive waste treatment plant, which will immobilize the legacy tank waste through vitrification. The DOE Richland Operations Office is responsible for all remaining Hanford cleanup and is currently focused on stabilizing and demolishing former plutonium production structures, excavating and disposing of contaminated soil and waste, treating contaminated groundwater, and configuring Hanford Site infrastructure for the future, with an emphasis on supporting the tank waste mission. Hanford Site work is conducted by a federal and contractor workforce of approximately 11,000 personnel. Visit www.hanford.gov for more information about the Hanford Site.

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