



# U.S. DEPARTMENT OF ENERGY

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## **Hanford Railcars Make Final Stop at B Reactor**

*Move Enhances Visitor Experience at Historic Reactor*

RICHLAND, WASH. – Two locomotives that hauled irradiated fuel around the Hanford Site for a half-century will reach their final stop this week when they are delivered to the Historic B Reactor for preservation and public display.

The two locomotives are among 16 railcars from Hanford's 200 North Area being removed by Department of Energy (DOE) contractor CH2M HILL Plateau Remediation Company (CH2M HILL).

“The B Reactor Preservation Project is excited to acquire these historic locomotives and cask cars which help tell the story of Hanford. Our contractors worked together to support these federal preservation efforts,” said Colleen French, DOE Government Affairs Program Manager.

Four of the railcars will be preserved for display at the B Reactor – the locomotives and two cask cars. Cask cars carried casks, or containers, which held the irradiated fuel. The 12 other railcars are slated for disposal at the Environmental Restoration Disposal Facility (ERDF) on the Hanford site.

Hanford contractors continue to work together to preserve the historical legacy of Hanford. For example, CH2M HILL provided packaging and transportation, the Mission Support Alliance performed more than 2,000 samples on the locomotives and provided support at the B Reactor area, and Washington Closure Hanford provided train rail materials for the exhibit. Also, the Grant/Tri City & Olympia Railroad constructed the exhibit rail.

Over several months, CH2M HILL prepared the cars for safe removal in stages; first determining the extent of contamination on and inside the cars, then applying grout, or cement, to the interiors to seal any contamination. In the fuel-carrying cask cars, dry grout was first used to trap contaminated

liquids inside, with follow-up applications of wet grout to fill remaining void spaces, reduce radiological dose, and allow the cars to be sealed, wrapped, and transported safely from the area.

“These cars represent not only surveillance costs for DOE, but about a million pounds of contaminated lead shielding and other legacy waste sitting out here in the desert,” said CH2M HILL project manager Earl Lloyd. “It’s our job to get these cars into a safe condition and off the line. The four we’re sending to the B Reactor will be safe for a form of public display, and the other 12 will be compliant for environmentally safe, long-term disposal at ERDF.”

The two locomotives, USDOE 3731 and USDOE 3729, were RS-1 locomotives built in 1948 by ALCO and acquired new by the Atomic Energy Commission. They spent their entire operating lives at Hanford. CH2MHILL performed exhaustive surveys on the locomotives and did not find any dangerous contamination. On the two other cars, a tall irradiated-fuel cask car (HO-10B-19945) and a standard irradiated-fuel cask car, exterior contamination has been fixed in place and the interiors filled with grout for delivery to the B Reactor later in May.

Running on some of the 158 miles of railroad track built for the Hanford Project, the 16 railcars carried irradiated fuel from the production reactors along the Columbia River and brought it to the 212 buildings for interim storage. There it was briefly stored to let some isotopes decay. The fuel was then delivered to the processing plants on Hanford’s Central Plateau and ultimately to the Plutonium Finishing Plant, where it was processed into weapons-grade plutonium for the nation’s defense. When the Hanford railroad ceased to run in 1997, the heavily shielded railcars were staged on the 212-N Spur, where they have remained since. Removal of all 16 cars will be complete by the end of September.

**Note:** CH2M HILL has captured photos and video footage of railcar preparation and transport activities. To access visual media, link to:

**Photos: Railcar Photos** (<http://www.hanford.gov/c.cfm/photogallery/gal.cfm/80D4595B-A999-4C4D-BA51-B9D681A80FF0>)

**Video: Railcars Video**

([http://www.youtube.com/watch?v=1aXZWCyPCeU&feature=player\\_profilepage](http://www.youtube.com/watch?v=1aXZWCyPCeU&feature=player_profilepage))

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