 Hanford Site Treating Record Amount of Contaminated Groundwater

Department of Energy goal for fiscal year 2013 met early

Note: Photos and graphics are available for downloading on our website link: http://ow.ly/m05cT

RICHLAND, Wash. - U.S. Department of Energy (DOE) contractor CH2M HILL Plateau Remediation Company (CH2M HILL) has exceeded this year’s goal for treating 1.4 billion gallons of contaminated groundwater at the Hanford Site in Washington state.

“In the last few years, DOE built three new groundwater treatment facilities, and now we are seeing the results,” said Briant Charboneau, Federal Project Director, DOE Richland Operations Office. “We are reducing contaminant levels to concentrations that meet remediation goals for protecting human health and the environment, and several areas of contamination have been significantly reduced.”

DOE’s goal was to treat 1.4 billion gallons by the end of the fiscal year, which runs from October 2012 to September 2013. CH2M HILL met this key performance goal three months ahead of schedule in June and has removed approximately 36 tons of contaminants so far this fiscal year. This goal was met ahead of schedule because the startup of a major new treatment facility has progressed more quickly than anticipated and the contractor has operated treatment facilities more efficiently.

CH2M HILL also exceeded last year’s treatment record of 1.2 billion gallons. To date, Hanford contractors have treated approximately 7.8 billion gallons of groundwater and removed approximately 55 tons of contaminants, including nitrate, carbon tetrachloride, hexavalent chromium, uranium, and technetium-99.

Six systems treat groundwater at Hanford. They are called pump and treat systems, because groundwater is pumped up through wells and treated to remove contaminants and shrink plumes. Plumes are areas of contaminated groundwater located underground in the center of the site and along the Columbia River, which runs through the Hanford Site.

“On top of building pump and treat systems, we have found innovative ways to keep existing systems running for extended periods of time,” said Bob Popielarczyk, Vice President of Soil and Groundwater Remediation for CH2M HILL. “Less down time for pump and treat systems means more groundwater can be treated.”

The amount of groundwater treated through the end of June is enough to fill more than 2,100 Olympic-size swimming pools or more than 500,000 standard water trucks. If parked end to end, they would stretch across the United States from Washington state to New York state.
The groundwater contamination resulted from operations to produce plutonium from the 1940s through the end of the 1980s. The discharge of liquids, some contaminated with chemicals and radionuclides, to soil disposal sites resulted in large plumes of contaminated groundwater. An estimated one million gallons of waste that leaked from underground tank systems during the Cold War also caused smaller contamination plumes in groundwater near the tanks. Treatment systems remove contaminants from groundwater using ion exchange columns, fluidized bed reactors, and membrane bioreactors.

In the last three years CH2M HILL has more than doubled the groundwater treatment capacity at the Hanford Site, from 600 million gallons a year to 1.4 billion gallons a year.

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*The Department of Energy’s Richland Operations Office is responsible for several major cleanup projects on the Hanford Site, including cleanout and demolition of the high-hazard Plutonium Finishing Plant, demolition of excess facilities, excavation of contaminated soil and solid waste, and treatment of contaminated groundwater, as well as Hanford Site infrastructure. The office oversees approximately $1 billion in annual funding for Hanford Site work that is conducted by a Federal and contractor workforce of approximately 4,200 personnel. Visit [www.hanford.gov](http://www.hanford.gov).*

*Headquartered near Denver, Colo., employee-owned CH2M HILL is a global leader in engineering, procurement, construction, management and operations for government, civil, industrial and energy clients. With $6.4 billion in revenue and more than 25,000 employees, CH2M HILL is an industry-leading program management, construction management and design firm, as ranked by Engineering News-Record (2008). The firm’s work is concentrated in the areas of energy, water, transportation, environmental, nuclear and industrial facilities. The firm has long been recognized as a most-admired company and leading employer, including being named by *FORTUNE* as one of the 100 Best Companies to Work For and one of America’s Most Admired Companies (2008). Visit [www.ch2mhill.com](http://www.ch2mhill.com).*