

SUBJECT: Office of Independent Oversight's Office of Environment, Safety and Health
Evaluations Tour of the Hanford Sludge Treatment Project - May 17-19, 2010

The U.S. Department of Energy Office of Independent Oversight, within the Office of Health, Safety and Security (HSS), conducted an orientation visit to the Department of Energy, Richland Operations Office (DOE-RL) and the Hanford Site in Richland, Washington during the period May 17-19, with DOE-RL managers/staff and contractor managers and supporting staff responsible for the ongoing K-Basins Sludge Treatment Project. The purpose of the visit was to ascertain ways in which HSS would be able to carry out its independent oversight responsibilities with respect to this project in a method that encourages collaboration with DOE-RL.

The K-Basin Sludge Treatment Project involves transferring sludge that has been recovered from the K-East and West fuel pool floors and other areas, that is presently temporarily stored in special open-engineered containers in K-West Basin, into containers suitable for transportation to the T-Canyon facility for longer-term interim storage until it can be treated and packaged for transport to permanent storage. This project has undergone some starts and stops in the pursuit of suitable processes to accomplish these goals. The most current efforts are aimed at extensively analyzing, simulating, and testing engineered alternatives for the various steps and equipment being considered, before the next attempts, in order to provide the maximum assurance of success.

HSS toured the facility where the equipment and conditions for the K-Basin Sludge Treatment Project are being developed, simulated, and tested, which is located at the Fast Flux Test Facility (FFTF) site in one of the former FFTF support buildings, and collected documents associated with these facilities for subsequent review. While touring the Sludge Treatment Project building where the new equipment is being developed, simulated, and tested, HSS observed several notable items that should contribute heavily to the future success of this project, including full-scale replicas of the K-West fuel pool and the engineered containers presently containing the sludge in the K-West Basin, the underwater pump that will be used to move the sludge from the pool to the transport vessels, the transport vessel currently being considered, and engineered simulant of the sludge material that will be used to test the transfer capability. All of this equipment is being tested and/or used to simulate, under safe conditions, the conditions and responses that will be expected for the actual transfers, in order to minimize the potential for further failures.

At the completion of the visit and with agreement from DOE-RL, HSS committed to review the current Documented Safety Analysis for the Sludge Treatment Project and provide comments to DOE-RL project contacts. Return visits to discuss any observations, to the extent practicable, will be adjusted to coincide with the times when significant components associated with the Sludge Treatment Project are to be tested in order to observe such tests. These visits are currently scheduled for July 12-16, 2010 and September 20-24, 2010.