

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 1, 2016

TO: Steven Stokes, Technical Director
FROM: Bradford Sharpless, Idaho Cleanup Project Cognizant Engineer
SUBJECT: Idaho National Laboratory (INL) Report for June 2016

DNFSB Staff Activity: Board's staff member R. Quirk was on site during June 9–14 to perform routine safety oversight. The Board's staff provided an average of 1.4 man-weeks of on-site oversight per month for the first nine months of fiscal year 2016.

Fluor Idaho, LLC: Fluor Idaho, LLC (Fluor) assumed the role of Management and Operating (M&O) contractor for INL's Idaho Cleanup Project on June 1. Fluor's managers implemented a methodical process for initiating work under the new contract. Fluor personnel performed hazard review boards for significant work activities before the managers authorized resumption of work.

Under the new contract, the Radioactive Waste Management Complex and the Advanced Mixed Waste Treatment Project, which had previously been operated under separate M&O contractors, will be operated by Fluor. Fluor will gradually integrate the safety bases and procedures for the two neighboring facilities.

Integrated Waste Treatment Unit: Following the waste simulant test run in May, the Integrated Waste Treatment Unit's (IWTU) operators encountered binding of the Denitration Mineralization Reformer's (DMR) recently redesigned auger-grinder. The binding was significant enough to cause the auger-grinder's shear pins to fail. Engineers conducted a root cause failure analysis of the auger-grinder equipment and are in the process of completing the accompanying report.

Although the root cause failure analysis report has not yet been issued, IWTU's managers determined that another redesign of the auger-grinder is necessary to ensure that it will function properly in any potential chemistry conditions within the DMR. The redesign, fabrication, and testing of the new auger-grinder must be completed before the next waste simulant test run can be conducted.

In support of future operation of the IWTU processing systems, Fluor has contracted with Hazen Research, located in Golden, Colorado, to perform additional analysis of the DMR's operation and chemistry. Hazen Research personnel are constructing a reduced-scale DMR pilot plant to assist in this testing.