



**OFFICE OF RIVER PROTECTION**

P.O. Box 450, MSIN H6-60  
Richland, Washington 99352

**JUN 14 2013**

13-TF-0049

Ms. Jane A. Hedges, Program Manager  
Nuclear Waste Program  
Washington State  
Department of Ecology  
3100 Port of Benton Blvd.  
Richland, Washington 99354

Ms. Hedges:

**SUBMITTAL OF THE 241-AY-102 PUMPING PLAN**

- References: 1) ORP letter from K. W. Smith and M. D. Johnson (WRPS) to J. A. Hedges (Ecology), "Analysis of 40 CFR 265.196 Requirements for Double-Shell Tank (DST) System Tank 241-AY-102, and Discussion of Double-Shell Tank Emergency Pumping Guide, HNF-3484, Revision 10," 13-TF-0024, dated May 6, 2013.
- 2) Washington Department of Ecology letter from J. A. Hedges to K.W. Smith (DOE) and M.D. Johnson (WRPS), Ecology Response to ORP letter 13-TF-0024, dated May 24, 2013.

The U.S. Department of Energy, Office of River Protection (ORP) is submitting the attached 241-AY-102 Pumping Plan (Plan) for your review and comment. ORP is committed to continue to work collaboratively in addressing this situation and our collective path forward.

ORP is proceeding with the planning, procurement and installation of the out-of-tank equipment that will be needed to allow pumping of the solids in the primary tank of 241-AY-102. These activities will require approximately 19 months to complete. This will position ORP to be able to initiate pumping quickly, if warranted. Should the conditions change as set forth in the enclosed Plan, including the discovery of pumpable liquid in the 241-AY-102 annulus, evidence of a waste leak in the 241-AY-102 leak detection pits, or evidence of compromised integrity of the annulus, if warranted, ORP would proceed with installation of the in-tank equipment necessary to pump the contents of tank 241-AY-102 as described in the attached Plan.

As detailed in the Plan, a pump in 241-AY-102 is already installed that could be used to remove supernatant from the primary tank; however, complete removal of the supernatant cannot currently be achieved without introducing a safety issue related to the balance of sludge stored in the tank. ORP is working to procure the equipment to transfer sludge from 241-AY-102, and the Plan sets forth a schedule associated with installation of a sludge removal system. At this time; however, removal of the waste from the primary tank is not practicable, nor is it necessary to prevent release to the environment.

Ms. Jane A. Hedges  
13-TF-0049

-2-

JUN 14 2013

Currently there is not enough material in the annulus for emergency pumping equipment to be able to remove. Flushing of the annulus and refractory material under the primary tank would be required to effectively remove the majority of waste from the annulus; however, flushing could have an adverse effect on the leak rate, would spread contamination throughout the annulus, and could endanger the integrity of the secondary liner. At this time, the secondary containment contains the waste thus preventing it from causing harm to human health or the environment.

Based on a comprehensive review of the information to date, ORP will continue the enhanced monitoring implemented for 241-AY-102 while at the same time proceeding with planning, procurements, and out-of-tank equipment installation necessary to position ORP to be able to initiate removal consistent with the enclosed Plan. Once those activities are completed, a decision will be made on further monitoring and retrieval activities.

We will be glad to brief you on the Pumping Plan details as well as continue working with you on how we will continue to monitor and assess the condition of 241-AY-102.



Kevin W. Smith  
Manager

Attachment

cc w/attach:  
M. Bellon, Ecology  
R. Albright, EPA  
K. Kelly, EPA  
D. Faulk, EPA  
K. Niles, ODOE  
W. C. Clark, WRPS  
Environmental Portal, LMSI  
Administrative Record: DST  
WRPS Correspondence