



Department of Energy
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08-AMCP-0290

OCT 20 2008

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Addressees:

INTERIM REPORT: 100-NR-2 APATITE TREATABILITY TEST: LOW-CONCENTRATION CALCIUM-CITRATE-PHOSPHATE SOLUTION INJECTION FOR IN SITU STRONTIUM-90 IMMOBILIZATION, PNNL-17429 AND REMEDIATION STRATEGY FOR URANIUM IN GROUNDWATER AT THE HANFORD SITE 300 AREA, 300-FF-05 OPERABLE UNIT, DOE/RL-2008-36, REVISION 0

The purpose of this letter is to formally transmit the following documents for your information. Both documents support the Hanford Site Comprehensive Environmental Response Compensation and Liability Act (CERCLA) cleanup efforts and were previously provided to the respective lead regulatory agency project leads. These are "secondary documents" as described in Table 9-1 of the Hanford Federal Facility Agreement and Consent Order.

- Interim Report: 100-NR-2 Apatite Treatability test: Low-Concentration Calcium-Citrate-Phosphate Solution Injection for In Situ Strontium-90 Immobilization, PNNL-17429.

This report describes the results of the Calendar Year 2007 Injection Campaign at the 100-N Apatite Sequestration Barrier. These results were used in designing the Calendar Year 2008 Injection Campaign that utilized a higher concentration solution for construction of the 300-foot Treatability Test Barrier. Results from the Calendar Year 2007 Injection Campaign and initial results from the Calendar Year 2008 Injection Campaign were presented to the State of Washington Department of Ecology (Ecology) on September 17, 2008. The results to date show promise for this technology. The results for the Calendar Year 2008 Injection Campaign will also be published in a similar report to the document attached herein. These data reports will be utilized in the 100-NR-01/02 Feasibility studies and proposed plan.

Addressees
08-AMCP-0290

-2-

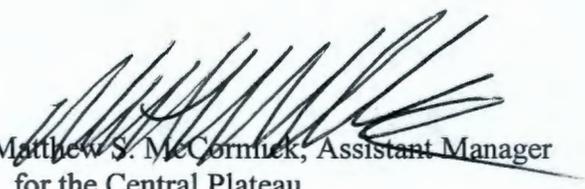
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- Remediation Strategy for Uranium in Groundwater at the Hanford Site 300 Area, 300-FF-05 Operable Unit, DOE/RL-2008-36, Revision 0.

This report describes our progress in down-selecting remedial technologies, combined into remedial alternatives, to address the uranium plume at Hanford's 300-FF-05 Operable Unit. This report indicates further characterization of the post-excavation residual uranium distribution is required before a defensible feasibility study and a proposed plan can be completed. In addition, the results of the first phosphate field test, published in "Challenges Associated with Apatite Remediation of Uranium, PNNL-17480, 2008," indicates additional field-scale technology testing is also needed before a defensible feasibility study and proposed plan can be completed. The results of the limited field investigation are published in "Limited Field Investigation Report for Uranium Contamination in the 300-FF-05 Operable Unit at the 300 Area, Hanford Site, Washington, PNNL-16435, November 2007." The current state of knowledge for 300 Area uranium contamination is documented in "Uranium Contamination in the Subsurface Beneath the 300 Area, Hanford Site, Washington, PNNL-17034, February 2008." The U.S. Environmental Protection Agency and Ecology participated in the initial systematic planning meeting held on September 16, 2008, where significant progress was made in defining the remaining work necessary to achieve the goals of completing the CERCLA remedial decision process.

If you have any questions, please contact me, or your staff may contact Briant Charboneau, of my staff on (509) 373-6137.

Sincerely,


Matthew S. McCormick, Assistant Manager
for the Central Plateau

AMCP:KMT

Attachments

0078975, 0078976

cc: See Page 3

Addressees
08-AMCP-0290

-3-

OCT 20 2008

cc w/attachs:

G. Bohnee, NPT
L. Buck, Wanapum
C. E. Cameron, EPA
S. Harris, CTUIR
R. Jim, YN
S. L. Leckband, HAB
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J. B. Price, Ecology
Administrative Record
Environmental Portal

cc w/o attachs:

R. E. Piippo, FHI
J. G. Vance, FFS