



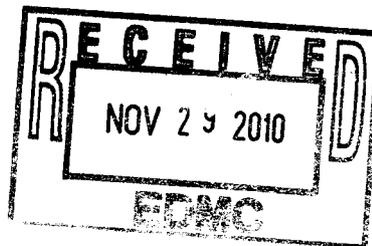
Department of Energy
 Richland Operations Office
 P.O. Box 550
 Richland, Washington 99352

11-AMCP-0002

'OCT 26 2010

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

Mr. D. A. Faulk, Program Manager
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 309 Bradley Boulevard, Suite 115
 Richland, Washington 99352



Addressees:

NON-SIGNIFICANT CHANGE FOR THE 100-HR-3 AND 100-KR-4 OPERABLE UNITS
 INTERIM ACTION RECORD OF DECISION, HANFORD SITE, WASHINGTON
 JULY 2010, MEMO TO FILE REGARDING: SUPPLEMENTAL ACTIONS FOR THE
 IN-SITU REDUCTION/OXIDATION MANIPULATION BARRIER PERFORMANCE FOR
 THE 100-HR-3 GROUNDWATER OPERABLE UNIT INTERIM REMEDY

This letter transmits the Non-Significant Change for the 100-HR-3 and 100-KR-4 Operable Units Interim Action Record of Decision, Hanford Site, Washington July 2010, Memo to File Regarding: Supplemental Actions for the In-Situ Reduction/Oxidation Manipulation Barrier Performance for the 100-HR-3 Groundwater Operable Unit Interim Remedy to the State of Washington Department of Ecology and U.S. Environmental Protection Agency for approval and entry into the Administrative Record.

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

Sincerely,

Richard A. Holten, Acting Assistant Manager
 for the Central Plateau

AMCP:JPH

Attachment

cc: See Page 2

100-HR-3
 100-KR-4

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 DOE-RLCC

Addressees
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cc w/attach:

G. Bohnee, NPT
L. Buck, Wanapum
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J. A. Seiple, Ecology
Administrative Record
Environmental Portal

cc w/o attach:

F. H. Biebesheimer, CHPRC
D. G. Black, CHPRC
N. A. Bowles, CHPRC
J. V. Borghese, CHPRC
R. E. Piippo, MSA
J. G. Vance, MSA

**Non-Significant Change for the 100-HR-3 and 100-KR-4 Operable Units Interim Action
Record of Decision
Hanford Site, Washington
July 2010**

**Memo to File Regarding: Supplemental Actions for the In-Situ Reduction/Oxidation
Manipulation Barrier Performance for the 100-HR-3 Groundwater Operable Unit Interim
Remedy**

An interim record of decision (ROD) for the 100-HR-3 and 100-KR-4 Groundwater Operable Units (OU) was issued in 1996. The 100-HR-3 Groundwater OU includes the groundwater associated with the 100-D Area. The selected interim remedy was to implement a groundwater pump-and-treatment system for hexavalent chromium [Cr(VI)]. The interim ROD was subsequently amended in 1999 for the 100-HR-3 Groundwater OU to include installing an In-Situ Redox Manipulation (ISRM) Barrier to reduce Cr(VI) along a portion of the D-Area shoreline.

Since implementation of the ISRM barrier, the ability to achieve the required remedial action objectives has varied:

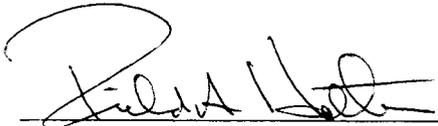
- ISRM Barrier performance meets the treatment requirement from the southwest end through much of length of the barrier;
- ISRM Barrier performance for several hundred feet along the northeast end does not achieve the required level of treatment; and
- Compliance wells at the northeast end of the ISRM barrier show Cr(VI) concentrations above the required treatment level and indicate Cr(VI) in groundwater reaching the river may exceed Ambient Water Quality Criteria (AWQC).

In August 2009, an Explanation of Significant Differences (ESD) documented a change to the ROD for cost increases associated with expansion and modification of the HR-3 operable unit (OU) pump and treat system. These changes were necessary to remediate groundwater and protect the Columbia River.

The ROD amendment stated "If barrier breakthrough is identified, Ecology and EPA will determine alternative action to be taken." Ecology and EPA have determined that pump and treat system expansion (i.e. pumping wells downgradient of the barrier) will be used to address the ISRM breakthrough and provide a protective interim remedy. Remedial action objectives should be met shortly after start-up of the expanded system in October/November 2010. The pump and treat expansion and performance monitoring modifications will be addressed through a revision to the Remedial Design/Remedial Action (RD/RA) Work Plan and Interim Action Monitoring Plan (IAMP). The portions of the ISRM barrier that are operable will continue to be monitored per the current and future RD/RA Work Plan and IAMP.

Non-Significant Change for the 100-HR-3 and 100-KR-4 Operable Units Interim Action
Record of Decision
Hanford Site, Washington
July 2010

Memo to File Regarding: Supplemental Actions for the In-Situ Reduction/Oxidation
Manipulation Barrier Performance for the 100-HR-3 Groundwater Operable Unit Interim
Remedy



U.S. Department of Energy

10-26-10

Date



State of Washington Department of
Ecology

10/28/10

Date



U.S. Environmental Protection Agency

10/28/2010

Date