



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

16-AMRP-0279

SEP 29 2016

Mr. Dennis A. Faulk, Program Manager
Office of Environmental Cleanup
Hanford Project Office
U.S. Environmental Protection Agency
825 Jadwin Avenue, Suite 210
Richland, Washington 99352

Dear Mr. Faulk:

PROPOSAL TO PERFORM HAZARD ABATEMENT AND DEMOLITION ACTIVITIES AT THE REDOX COMPLEX

The U.S. Department of Energy Richland Operations Office (RL) is providing a proposal for a removal action in accordance with Executive Order 12580 and the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Action Plan Section 7.2.4. The proposal is outlined in this letter and further details are provided in the attached Engineering Evaluation/ Cost Analysis, DOE/RL-2016-16, Draft A for the proposed action at the REDOX Canyon Complex. The REDOX Canyon Complex was shutdown in the 1960s, detailed documentation of the as-left conditions does not exist as compared to the other facilities.

RL proposes to perform hazard abatement and limited demolition at the REDOX Canyon Complex. The attached Draft EE/CA was produced as the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) document to define/evaluate alternatives and to recommend a preferred alternative. The reasons for this proposal are not a near-term risk, but are listed below:

- To preclude the increase in cost/complexity of Surveillance & Maintenance (S&M) tasks. The CERCLA Record of Decision (ROD) is not anticipated until the 2032 time frame. Current annual S&M costs are approximately \$1M/year. Experience with the Hanford canyons indicate an increasing cost of S&M. The recent removal of the Plutonium Nitrate bags from the REDOX facility is an example of a hazard abatement action.
- To perform minor activities that can be accomplished with available funds as they are identified through efficiencies or additional new funding. All actions taken would be consistent with the final remedy when identified by the ROD.
- To maintain a skilled workforce at Hanford that is experienced in contaminated Decontamination and Demolition (D&D) work and will be needed when future major funding becomes available.

The work addressed in the EE/CA is summarized as follows:

Hazard Abatement of the 202S Canyon

- Hazard abatement differs from current S&M in that it allows for a proactive approach to mitigate or reduce risk before a major response would be required. Hazard abatement activities may range from stabilization to complete removal of selected equipment and waste. The 202S Gallery areas that would receive hazard abatement are the North Sample Gallery including the Plutonium Loadout Hood, South Operating Gallery, South Sample Gallery, South Pipe Gallery, and Storage Gallery. An example of these activities would be removal of the highly contaminated Plutonium Nitrate Hood in the North Sample Gallery, and removal of the L-14 line which was the source of the Plutonium Bag leakage.

Demo Prep of the Silo Service area, Annex and Canyon Above Grade Areas

- Demo preparation may include activities such as general housekeeping and removal of equipment and waste. Decontamination, fixing/stabilization of contamination, and isolation of systems may be performed.
- The Silo service area, which has a stairwell connecting all levels of REDOX, has eight floors of various levels of contamination (primarily chemical) and up until recent times was considered the lowest risk of the facility. Due to intrusions from weather and degradation of the facility, the area is now posted as a contamination area. Demo preparation would include levels one through five, seven, and eight.
- The Annex areas were administrative support and equipment areas, several of which are now contaminated with asbestos ceiling tiles and other hazardous substances. These areas contain switch gear banks, transformers, batteries, former chemical storage tanks, deactivated fans and miscellaneous equipment. Demo preparation of this area would remove these hazards and make the space available for future support of more complex activities.

Demolition of the 276S Hexone Storage Tanks and the 293S Building

- The two hexone tanks are below grade ~24,000 gallon, single shell tanks that have been drained and filled with grout.
- The 293S building is a concrete block two-story structure ~1600 square feet in size containing minimal amount of closed mechanical components used in nitric acid and radioactive iodine recovery processes.

Grouting of 293S Below Grade Areas

- After demolition of the 293S Building and removal, the subsurface volume will be filled with grout.

Demolition of the 202S Annex

- The interior chemical/radiological hazards would be removed (including below grade) and the building demolished to approximately ground surface level.

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The above work will be performed based on emergent facility conditions, funding availability, craft/engineering resources availability and overall interactive site priorities. The work will continue until the issuance of a ROD, funding is available and execution is authorized. RL will attempt to provide funding of \$2-\$3M/year through efficiencies. Assuming that a ROD would be available in the 2032 time frame, the maximum expenditure would be in the range of \$30-\$45M over the 15 year time period.

As the defining CERCLA document, the attached EE/CA is written in accordance to control all activities such that no action is undertaken which would be inconsistent with the CERCLA process. The EE/CA is written from a conservative perspective since the assumption for continued S&M is 25 years and there is no detailed documentation of as-left conditions following shutdown of the facility.

The target funds to be identified through efficiencies are at a low value such that no substantive impact would be expected to the current schedules outlined in Appendix D of the Tri-Party Agreement.

If there are any questions, please contact me or you may contact Al Farabee of my staff, on (509) 376-8089.

Sincerely,



Ray J. Corey, Assistant Manager
for the River and Plateau

AMRP:OAF

Attachment

cc w/attach:

C. E. Cameron, EPA
G. Bohnee, NPT
R. Buck, Wanapum
S. Hudson, HAB
R. Jim, YN
N. M. Menard, Ecology
K. Niles, ODOE
D. Rowland, YN
R. Skeen, CTUIR
A. K. Smith, Ecology
Administrative Record (REDOX)
Environmental Portal

cc w/o attach:

J. V. Borghese, CHPRC
C. P. Noonan, MSA
R. E. Piippo, MSA
J. R. Stults, CHPRC
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