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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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August 30, 2010

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SEP 01 2010

EDMC

Mr. Jose Franco, Assistant Manager
Richland Operations Office
United States Department of Energy
P.O. Box 550, MSIN: A7-50
Richland, Washington 99352

Re: Debris North and South of the 100-D Area Perimeter Road within 100-D-55, Waste Site
Reclassification Form for 100-D-15

Dear Mr. Franco:

The Department of Ecology (Ecology) approves Waste Site Reclassification From and Attachment for 100-D-15. We request the United States Department of Energy's (USDOE) response to our proposal to modify work (submitted in accordance with Hanford Federal Facility Agreement and Consent Order [HFFACO] Article XXX) listed on page 2. Ecology also requests that USDOE revise the Remaining Sites Verification Package according to our comments (enclosure), with the exception of the comments regarding additional remediation at the site.

Ecology agrees that interim standards for remediation have been met per the requirements of *Remedial Design Report/Remedial Action Work Plan for the 100 Area*, DOE/RL-96-17, Revision 6 (Work Plan). Based on our review of the sampling data, we believe that additional cleanup could be required at this site under the final Record of Decision (ROD) for the 100-D Area. Therefore, we request that this site not be backfilled. Ecology submits this request in accordance with HFFACO Article XXX (Additional Work or Modification of Work). Article XXX requires Ecology to describe its proposed modification to work, and requires USDOE to respond within 30 days.

Lead regulatory agency concurrence is required to authorize site backfill (Work Plan, Section 3.1.2) and backfill is required to meet HFFACO interim milestone M-016-47. Ecology is strongly recommending against backfill at this time. We are prepared to provide relief from the portion of M-016-47 interim milestone requiring backfill and revegetation in order for the sites to remain open.

M-016-47



reference
0085806



1000000

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To address current work plan requirements, Ecology proposes the following specific modifications for the 100-D-15 waste site.

Existing requirement:

“Excavations are backfilled so that sites conform to local topography,” (Work plan, Section 3.12., last sentence).

Proposed Modification:

The 100-D-15 waste site will not be backfilled as part of the interim remedial action, and backfill requirements will be deferred to the final ROD. The Waste Information Data System (WIDS) will document this agreement.

Existing Requirement:

“After a site has been demonstrated to have achieved cleanup levels and RAOs, the site will be backfilled with clean materials and revegetated in accordance with approved plans,” (Interim Action ROD 100 Area Remaining Sites, pg. 36).

Proposed Modification:

The 100-D-15 waste site will not be backfilled as part of the interim remedial action, and backfill and revegetation requirements will be deferred to the final ROD. WIDS will document this agreement.

Existing Requirement:

“The completion of the 100 Area Interim response actions includes:

- Remediation of all waste sites and EPA/Ecology approval of associated closeout verification packages.
- Backfill and revegetation of the waste sites.
- Decontamination and decommissioning of all ancillary facilities” (HFFACO Change Request M-16-01-05, April 24, 2002).

Proposed Modification:

The 100-D-15 waste site will not be backfilled as part of the interim remedial action, and backfill and revegetation requirements will be deferred to the final Record of Decision. WIDS will document this agreement.

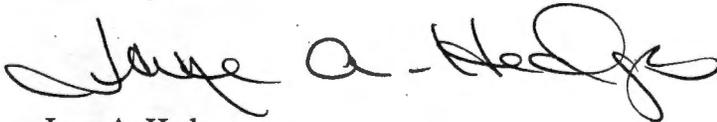
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Our assessment that remediation at this site is incomplete is based on the relative frequency at which 100-D-15 sample results exceed Washington Administrative Code (WAC) 173-340 (2007) remedial action goals for human health and ecological risk. In addition, WAC 173-340 (1996) remedial action goals (as shown in Remedial Design Report/Remedial Action Work Plan DOE/RL-96-17, Rev. 6, (Work Plan) tables B-2 and/or-3) were exceeded, for which USDOE substituted modeling. This is allowed under DOE/RL-96-17, Rev. 6; the Work Plan; however, the modeling approach currently used will not be accepted by Ecology for final decisions. Therefore, Ecology believes that if the 100-D-15 site is backfilled and revegetated now, USDOE risks having to re-excavate the site in the future.

In accordance with the evaluation required of USDOE by HFFACO Article XXX, USDOE will submit a written evaluation of the impact (cost and schedule for re-excavating this site) to Ecology, in the event that USDOE does backfill the site.

If there are any questions, contact Nina Menard at 509-372-7941.

Sincerely,



Jane A. Hedges
Program Manager
Nuclear Waste Program

nm:lkd
Enclosure

cc: Stuart Harris, CTUIR
Gabriel Bohnee, NPT
Russell Jim, YN
Susan Leckband, HAB
Ken Niles, ODOE
Administrative Record: With File Location 100-D RDR/RAWP
Hanford Operating Record General File
Environmental Portal
USDOE-RL Correspondence Control

**Document Review of
Remaining Sites Verification Package for the 100-D-15, Debris North and South of
the 100-D Area Perimeter Road within 100-D-55 (Gravel Pit #2, Pit 21)
(RSVP for 100-D-15)**

Reviewers: Noe'l Smith-Jackson, Beth Rochette, Mandy Jones – Washington State
Department of Ecology

Date: March 15, 2010

General Comment:

1. Washington Administrative Code (WAC) 173-340 1996 and 2007 cleanup levels are exceeded for a number of contaminants at sample location S4 in the “south area” of 100-D-15. Therefore, Ecology recommends additional remediation at this location (S4) and believes that the recommendation for further remediation supersedes our specific comments below.

Specific Comments:

1. **Page ES-2, Table ES-1:** “Yes” has been listed for the remedial action objectives attainment for Groundwater/River Protection for radionuclides. Since radionuclides are not constituents of concern/constituents of potential concern for this site, the response should be “NA.” Please correct.
2. **Page ES-3, last paragraph of page and p. 12, last paragraph of Data Evaluation; p. 10, Table 3:** Please correct the text to the following: “Because concentrations of cadmium, manganese, selenium, and vanadium, ~~and zinc~~ are below Hanford Site or Washington State background values (note that state background values are only used when Hanford Site background values are not available), it is believed that...” The zinc 95% upper confidence limit UCL exceeds both the background and WAC 173-340 Table 749-3 soil concentration protective of plants in the southern portion. Location S4 also exceeds twice the concentration protective of plants.
3. **Page ES-3, 2nd paragraph, 7th sentence:** Please change to read: “No established background value is available for boron at this time; a final cleanup level for boron, including consideration of background, will be established through the “Integrated 100 Area Remedial Investigation/Feasibility Study” process.
4. **Page 1, Statement of Protectiveness:** Please add the following paragraph found in the Executive Summary. It will provide detail and consistency with all previously approved Remaining Sites Verification Packages. “Although not required by the Burial Ground ROD, ... and vanadium present at concentrations exceeding background will be evaluated in the context of additional lines of evidence for risk to ecological receptors as part of the final closeout decision for this site.”

5. **Page 12, Data Evaluation, last paragraph, 5th sentence:** Please correct the text to the following: "Because concentrations of cadmium, manganese, selenium, and vanadium, ~~and zinc~~ are below Hanford Site or Washington State background values (note that state background values are only used when Hanford Site background values are not available), it is believed that..." The zinc 95% UCL exceeds both the background and WAC 173-340 Table 749-3 soil concentration protective of plants in the southern portion. Location S4 also exceeds twice the concentration protective of plants.
6. **Page 12, Data Evaluation, last paragraph, 6th sentence:** Please change to read: "No established background value is available for boron at this time; a final cleanup level for boron, including consideration of background, will be established through the "Integrated 100 Area Remedial Investigation/Feasibility Study" process.
7. **Page A-1, Ecological Screening table:** Correct the last column of the table to show that the zinc value is not less than background.
8. **Page B-6, Results Summary – North Excavation:** The units for Aroclor-1254 are missing from the table. Please fill in.
9. **Page B-21- B-35, Attachment 1:** Please include footnotes explaining the data qualifiers.
10. **Page B-21, Attachment 1:** All of the samples exceed the WAC 173-340 Table 749-3 (2007) value for boron for protection of plants. Many are flagged as B, indicating blank contamination. However, seven of the samples exceed the boron plant protection value by more than a factor of two and are true detects. Ecology will make note of this for our records.
11. **Page B-21, Attachment 1:** Cadmium exceeds background and the WAC 173-340 (2007) soil concentrations protective of groundwater and the river by more than a factor of two for location S4. Therefore, the southern portion does not pass the 3-part test for cadmium. Also, hazard indices for skeletal, cardio-, GI, reproductive and nephro- systems exceed one for this location for the pathway to groundwater.
12. **Page B-33, Attachment B-1:** DDD and DDE at location S4 exceed WAC 173-340 (2007) soil concentrations protective of the river by more than a factor of two.