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Ms. Laura J. Cusack
Project Management Section Manager
Nuclear Waste Program
State of Washington
Department of Ecology
1315 W. Fourth Avenue
Kennewick, Washington 99336-6018

Dear Ms. Cusack:

RESPONSES TO THE STATE OF WASHINGTON DEPARTMENT OF ECOLOGY'S (ECOLOGY) DECEMBER 4, 2000, COMMENTS ON THE 200-CW-1 OPERABLE UNIT REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS) WORK PLAN; 216-B-3 RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) TREATMENT, STORAGE, AND DISPOSAL (TSD) UNIT SAMPLING PLAN, DOE/EL-99-07, REV. 0; AND DECEMBER 18, 2000, COMMENTS ON THE 200-CW-1 OPERABLE UNIT REMEDIAL INVESTIGATION REPORT, DRAFT A

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References:
(1) Ecology ltr. to B. L. Foley, RL, from J. B. Price, "200 CW-1 Gable Mountain Pond/B Ponds and Ditches Cooling Water Group Operable Unit Remedial Investigation Report," dtd. December 18, 2000. 54205

(2) Ecology ltr. to B. L. Foley, RL, from J. B. Price, "Approval of 200-CW-1 Operable Unit Remedial Investigation/Feasibility Study (RI/FS) Work Plan," dtd. December 4, 2000. 54184

Thank you for the comments we received on the above subject documents. While the December 4, 2000, letter (see reference 2 above) approves the work plan, the attached comment resolutions provide responses to the comments provided by John Price in that same letter. The ecological comment has been a topic of discussion at several operable unit (OU) and Unit Managers' Meetings. A draft outline of the proposed 200 Area ecological strategy was provided to Mr. Price at the December 21, 2000, meeting on the 200-TW-1 and 200-TW-2 OUs. This strategy is applicable to this OU and will be a part of the feasibility study (FS) that is currently being prepared. The other issues concerned the schedules in the work plan and the public review of the closure plan. These issues have been discussed at Unit Managers' Meetings. The responses provided reflect these discussions.

Similar to the work plan, the ecological comment received on the Remedial Investigation (RI) Report will be addressed as described in the strategy and within the FS. Responses on the specific comments on the RI Report are addressed in the attached comment resolutions. Revisions based on these comments are being incorporated into the RI Report, Rev. 0. This document will be transmitted to you shortly.

After several comment resolution meetings with Ecology, the attached responses provided on the Rev. 0 work plan and the Draft A RI report were accepted by Mr. Price as satisfactory resolution of the comments. I sincerely appreciate the open communication and cooperation it took to finalize these comment responses.

If you should have any questions or concerns, please call me at (509) 376-7087.

Sincerely,

Bryan L. Foley, Project Manager
Environmental Restoration Division

ERD:BLF

Enclosures: As stated

cc w/encls:
B. H. Ford, BHI
M. E. Todd, BHI
C. D. Wittreich, BHI
J. B. Price, Ecology
J. L. McConnaughey, WDFW
Admin Record, H6-08 (200-CW-1 & 216-B-3)

Responses to Ecology Comments on the 200-CW-1 Operable Unit Remedial Investigation/Feasibility Study Work Plan, Rev. 0
January 23, 2001

Re: December 4, 2000 letter from J. B. Price, Washington State Department of Ecology, to B. L. Foley, U.S. Department of Energy, *Approval of 200-CW-1 Operable Unit Remedial Investigation/Feasibility Study (RI/FS) Work Plan.*

Comments received from the Washington State Department of Ecology on the 200-CW-1 Work Plan are summarized below with DOE-RL responses.

Ecological Assessment

Ecology has previously communicated to USDOE that there is a consistent deficiency in how biological impacts are addressed in the 200 Area. The Washington State Department of Fish and Wildlife (WDFW) has previously provided comments on the 200-CW-1 Work Plan:

- letter from Jay McConnaughey, WDFW, to Bryan Foley, USDOE, 8/4/99, Re: *Comments on the 200-CW-1 Operable Unit RI/FS Work Plan and 216-B-3 RCRA TSD Unit Sampling Plan*
- response letter from Bryan L. Foley, USDOE, to Jay McConnaughey, WDFW, 9/21/99, Re: Response to Comments on the 200-CW-1 Operable Unit Remedial Investigation Plan

It is Ecology's opinion that USDOE's response is unsatisfactory. USDOE's key assertion is that "At this time, additional studies are not deemed necessary, as the information defined by the U.S. Environmental Protection Agency (EPA) is its 'Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA (1988)' has already been collected." Ecology has separately requested that USDOE submit a remedial investigation report containing subject information for the 200 Area as a whole. Therefore, Ecology does not withhold approval of the 200-CW-1 Work Plan. It is incumbent on USDOE to provide issue resolution within the context of the remedial investigation report.

Response: *A strategy to address ecological impacts in the 200 Areas is currently being developed. Elements of the strategy include the compilation of existing ecological data (surface soil sample data, radiological survey data, biota data, etc.) into an ecological summary report; preparation of a 200 Area map showing areas where ecological uptake has occurred, where surface soil contaminant concentrations exceed ecological protection standards, and where surface radiation has been detected; nonintrusive site evaluations in support of conceptual exposure models and identification of additional data needs; and preparation of a summary report of exposure evaluations. Because activities under this strategy will be performed concurrently with the 200-CW-1 Feasibility Study, certain elements of the 200 Area ecological assessment will be incorporated into the FS, such as a compilation of existing ecological data for the 200-CW-1 waste sites and an assessment of ecological resources. Risks will be evaluated using look-up ecological standards and site-specific soil, vegetation, and other ecological data.*

The other unresolved comments that do not affect approval are:

- Pursuant to Washington Administrative Code (WAC) 173-303, the closure plan for final closure of a dangerous waste Treatment, Storage, and Disposal (TSD) must go through public involvement. USDOE asserts that public involvement on the permit modification fulfills this requirement. Because this comment relates to a subsequent primary document (the Feasibility Study [FS]/Closure Plan), it does not affect approval of this Remedial Investigation (RI) Work Plan.
- The last two activities presented in the schedule do not match the Tri-Party Agreement (TPA) change package. Because it is expected that subsequent TPA change packages will periodically update this schedule, this comment does not affect approval of this RI Work Plan.

Responses:

Public Review of the Closure Plan

Section 2.4.2.4 of the Implementation Plan describes the integrated process for the evaluation of alternatives. The following text describes how the closure plan for TSDs will be integrated with the FS (taken from Section 2.4.2.4 of the Implementation Plan):

"After characterization is complete, remedial alternatives/closure strategies will be developed and will be evaluated against performance standards and evaluation criteria. This evaluation will be used to satisfy the TSD requirement for determining what type of closure is practicable and can be achieved. The results from this process will be a waste group-specific FS/closure plan. The format will follow the standard format of a CERCLA FS with the following modifications:

- *If the waste group includes a TSD unit(s), a closure plan addressing the TSD unit(s) will be added to the FS as an appendix. The closure plan will do the following:*
  - *Incorporate by referencing the specific page and line number of the waste group-specific work plan or reproduce work plan text or modified text into the closure plan for Facility Description and Location, Process Information, Waste Characteristics, Groundwater Monitoring, and the characterization SAP. Should information from waste group-specific work plans be outdated or require modification, new text will be added to the closure plan.*
  - *Incorporate by referencing the specific page and line number of the waste group-specific work plan and/or RI report, or reproduce work plan (or RI report) text or modified text into the closure plan. Should information from waste group-specific work plans be outdated or require modification, new text will be added to the closure plan.*
  - *Include Closure Performance Standards.*
  - *Include the Closure Strategy and general Closure Activities. Sufficient detail will be included in these discussions to comply with closure plan content requirements. Should remedial design activities require changes to this information that constitute a Class 1, 2, or 3 change to the Permit, a Permit modification will be requested.*

- *Include a general post-closure plan (if modified or landfill closure options will be used), with an acknowledgement that this will be updated as necessary (using appropriate public involvement) after the completion of closure. For example, the detailed requirements for post-closure groundwater monitoring may be determined after the final condition of the TSD is determined.*

- *Include a commitment to prepare a verification SAP as part of remedial design.*

- *To satisfy RCRA corrective action requirements, a chapter will be added that presents a recommendation for corrective action alternatives for regulatory agency consideration. Similarly, the closure plan only identifies the closure strategy that the responsible agency deemed appropriate after conducting its evaluation; there is no requirement to discuss the other closure alternatives. Therefore, to integrate this phase, the document will be developed to meet the RCRA CMS specifications and the applicable closure plans will be included.*

  The TPA, in Section 10.6, requires that "when the Phase III FS and proposed plan are finalized, the lead regulatory agency will issue a public notice of opportunity to comment on the documents." Therefore, when the proposed plan is made available for public review, the closure plan (including a precise roadmap identifying the integral pieces of that closure plan as stated in the above bullets) will be made available as part of the FS. The commitment for this is evident in DOE-RL's agreement to concurrent milestones on the FS/closure plan and proposed plan/proposed permit modification.

  Earlier comment resolutions for Ecology's comments on Draft A of the work plan addressed many of the issues related to the TSD closure plan. The information contained within the work plan that is intended to fulfill requirements of the closure plan is specifically identified as is the information in other documents (such as the RI report, the FS, and the proposed plan).

Work Plan Schedule versus TPA Change Package Milestone Dates

The work plan schedule intentionally describes the work scope as "target project milestones." Additional language in Section 6 indicates these target project milestone dates could be affected by TPA negotiations on interim milestones or by the annual DWP planning process. The dates on the work plan schedules did match the initial draft TPA change packages that were submitted with the Rev. 0 work plan. Subsequent to the work plan submittal, revisions to the TPA change packages were requested by EPA and Ecology to make the feasibility study and proposed plan interim milestones coincident and to change the milestone dates to reflect the last day of the month. These changes were made to the TPA change packages, thereby creating discrepancies between the current work plan schedules and the TPA milestones.

While in an ideal situation, it would be nice if the work plan schedule and TPA change package matched. However, as stated in your comment, this does not seem significant enough to warrant revision of the work plan. The project schedule is

subject to constant changes over the work scope period, and project target milestones, and even the TPA milestones, can change with good reason.

Responses to Ecology Comments on the 200-CW-1 Operable Unit Remedial Investigation Report, Draft A
January 24, 2001

Re: December 18, 2000 letter from J. B. Price, Washington State Department of Ecology, to B. L. Foley, U.S. Department of Energy, *200_CW-1 Gable Mountain Pond/B Ponds and Ditches Cooling Water Group Operable Unit Remedial Investigation Report.*

Comments received from the Washington State Department of Ecology on the 200-CW-1 Remedial Investigation Report are summarized below with DOE-RL responses.

General Comments

The RI Report does not adequately determine which constituents and site-specific considerations need to be addressed in the FS for the Preservation (Mining) sites.

The basis for these conclusions is:

- The Washington State Department of Fish and Wildlife (DFW) has previously submitted comments on the 200-CW-1 Work Plan; those comments are unresolved.
- Ecology concurs with the DFW comments
- The large ponds and their tributary ditches are in the area designated "Conservation (Mining)" by the Hanford Comprehensive Land Use Plan.
- The ponds are areally extensive, with potentially impacted areas of tens of acres.
- The sites in the area designated Conservation (Mining) represent important potential habitat for ecological receptors.
- USDOE has previously reported the transport and uptake of contaminants by plants and animals.
- The RI data is sufficient to characterize the original contaminant deposition, but is inadequate to characterize the potential transport and uptake of contamination by biological vectors (plants and animals).
- The RI devotes less than one page of text (bottom of page 3-19 & most of page 3-20) and two pages of tables (page 3-53 & 3-54) to soil/vegetation results. The RI Report is deficient because it lacks statements about how those data will be used in the FS.
- The RI report states that it "does not provide interpretations or risk evaluations for the ecological data gathered" and defers the issue of potential impacts to the Groundwater/Vadose Zone Integration Project. That deferral begs the question of how alternatives evaluated in the FS will be selected to prevent impacts to ecological resources.

Response: *A strategy to address ecological impacts in the 200 Areas is currently being developed. Elements of the strategy include the compilation of existing ecological data (surface soil sample data, radiological survey data, biota data, etc.) into an ecological summary report; preparation of a 200 Area map showing areas where ecological uptake has occurred,*

where surface soil contaminant concentrations exceed ecological protection standards, and where surface radiation has been detected; nonintrusive site evaluations in support of conceptual exposure models and identification of additional data needs; and preparation of a summary report of exposure evaluations. Because activities under this strategy will be performed concurrently with the 200-CW-1 Feasibility Study, certain elements of the 200 Area ecological assessment will be incorporated into the FS, such as a compilation of existing ecological data for the 200-CW-1 waste sites and an assessment of ecological resources. Risks will be evaluated using look-up ecological standards and site-specific soil, vegetation, and other ecological data.

Specific Comments

1. Section 1.3.2, Page 1-4, Text should explain why it is "conservative" to calculate risk for an industrial scenario for the conservation (mining) designated use areas.

Response: *Comment accepted. The following text will be added "The main land use under the conservation (mining) scenario would be as borrow sites for capping materials with alternative uses including Tribal privileges, recreation, or non-intrusive environmental research. Based on this information, the conservation (mining) scenario is assumed to be similar to the Low-Intensity Recreation scenario. The recreational scenario uses 7 days of exposure for soils during various activities (as described in the Hanford Site Risk Assessment Methodology report). In contrast, the industrial scenario uses 146 days of exposure for soils, resulting in greater exposures under the industrial scenario and representing more conservative risk estimates for human health. The exact scenarios to be used to estimate risk still have to be agreed to in the feasibility study.*

2. Section 3.2.1.3, Page 3-7, "waste oil was detected" might be more appropriately stated "waste oil constituents were detected" unless there was a visual observation of stained soil (and if so, the text should indicate that).

Response: *Comment accepted. The word "constituents" will be added to this and other similar sections as appropriate. In addition, there were no visual observations of stained soil during the remedial investigation; therefore, no additional text is needed.*