

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 10

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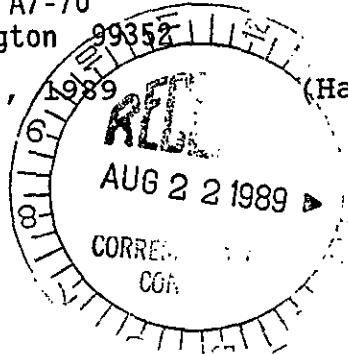
Hanford Project Office
Federal Building, Rm. 178
P.O. Box 550, A7-70
Richland, Washington 99352

August 18, 1989

(Hand Delivered)

REPLY TO
ATTN OF: A7-70

Roger D. Freeberg
Project Manager
U.S. Department of Energy
P.O. Box 550, A6-50
Richland, Washington 99352



Re: Comments on Revised Remedial Investigation / Feasibility
Study Work Plan for the 200-BP-1 Operable Unit

Dear Mr. Freeberg:

The U.S. Environmental Protection Agency (EPA), as the lead regulatory agency for the 200-BP-1 operable unit, has completed its review of the RI/FS Work Plan which was dated July 21, 1989. The EPA received the Work Plan from the U.S. Department of Energy (DOE) on July 21, 1989.

All of EPA's comments on the revised document are enclosed. Our target date for issuing this document for public comment is September 5, 1989. Prior to that date, we need to come to resolution on the enclosed comments. I am requesting that these comments be addressed in the Work Plan before the public comment period begins. I am proposing that we hold a conference call on August 22, 1989, to discuss resolution of these comments. That should allow adequate time for you to incorporate the changes and still meet the target date for public comment.

If you have any questions, please contact me at
(509) 376-6623 or FTS 444-6623.

Sincerely,

A handwritten signature in cursive that reads "Paul T. Day".

Paul T. Day
Hanford Project Manager

Enclosure

cc: (with enclosure)

M. Anthony, DOE/RL
R. Stanley / L. Goldstein, Ecology
G. Hofer, EPA
Administrative Record File (200-BP-1 operable unit)

E. Pimentel, PRC
W. Staubitz, USGS
✓ J. Waite, WHC

Enclosure

Comments on Revised Remedial Investigation / Feasibility
Study Work Plan for the 200-BP-1 Operable Unit

August 18, 1989

1. **Deficiency:** Section 11, p. SAP/QAPP-25
(Identified as comment #51 on May 24, 1989 comments.)

The response to this comment acknowledges that level IV CLP analyses should conform with the CLP methodology. However, no such acknowledgement is made in the revised Work Plan text.

Recommendation:

Revise the Work Plan to reflect the response regarding level IV CLP methodology.

2. **Deficiency:** Section 2.3.5.2, p. SAP/FSP-17
(Identified as comment #54 on May 24, 1989 comments.)

The response to this comment states that the construction design of the distribution system and the stratigraphy of the adjacent areas will be considered and evaluated before conducting tracer gas activities. However, such consideration was not addressed in the revised Work Plan text.

Response:

Revise the Work Plan to reflect the response regarding tracer gas activities.

3. **Deficiency:** Section 2.6.5, p. SAP/FSP-33
(Identified as comment #56 on May 24, 1989 comments.)

Response to this comment states that, after radiation screening, drill cuttings will be collected and held pending the results of chemical analysis. Then, with the knowledge of such chemical analysis, appropriate disposal is to occur. However, no change indicating such procedure appears in the revised Work Plan text.

Recommendation:

Provide a description of the chemical analysis that will occur and the basis for the decision on how the drill

cuttings will be disposed. We assume that the chemical analyses will be conducted to determine RCRA applicability. The methods for temporary storage and security of the containers should also be discussed.

Presently, a procedure is being developed for management of drill cuttings and other unknown wastes. This is presently titled "Interim Control of Unknown Waste", EII 4.2, and will be included in the Environmental Investigations and Site Characterization Manual (WHC-CM-7-7). If this procedure is finalized and cleared by the time this Work Plan is sent to public comment, EII 4.2 could be referenced in the Work Plan to address this issue. Otherwise, a stand alone narrative must be included.

4. **Deficiency:** Section 8.5, p. HSP-30
(Identified as comment #68 on May 24, 1989 comments.)

The response provided to this comment is not acceptable. The response states only that bagging of contaminated equipment has occurred at Hanford for a considerable period of time. Certainly a protocol exists for bagging of contaminated equipment.

Recommendation:

Provide additional description to this Work Plan section, as requested in the original comment or reference a cleared procedure that addresses this topic.

5. **Deficiency:** Table 3, p. WP-40
(Identified as comment #72 on May 24, 1989 comments.)

It appears that more complete and recent background water quality data is available than what is listed in Table 3.

Recommendation:

Include the most recent background water quality data in Table 3. As a reference, see the Work Plan for the 100-HR-3 operable unit, page WP-44.

6. **Deficiency:** Section 2.2.3.1.5, p. WP-39
(Identified as comment #72 on May 24, 1989 comments.)

The response provided is inadequate. The theory behind obtaining background or upgradient groundwater data was to determine whether a facility had actually contaminated the aquifer due to waste management practices or releases. As

such, background data is important in determining criteria for cleanup. In some cases, facilities have been allowed to use upgradient data to establish cleanup standards because groundwater was moving from an off-site source, such as a neighboring facility over which they had no control. At Hanford, particularly in the 200 Area, there is no known neighboring off-site source adding to the groundwater contamination. There are however, other upgradient operable units which may contribute to groundwater contamination. In some cases, it may be possible to attribute the specific contamination to a particular operable unit, while in other cases, it may not. The bottom line is that contamination in the aquifer at all locations will be treated to acceptable standards.

It should be clearly understood that for those contaminants which do not occur naturally, any confirmed concentrations will be considered as "contamination", subject to the appropriate cleanup standards for the operable unit in question. For those naturally occurring elements, true background (i.e., unaffected by any Hanford Site operations) will be used for comparison to downgradient wells. This is the only way we can assure that adequate cleanup of all hazardous constituents or hazardous substances occurs.

If we use the approach of cleaning up only to a concentration found at an upgradient operable unit boundary, we are only deferring the problem until later, when the upgradient operable unit is remediated. Then, remediation of the entire groundwater contaminant plume, including the portion beneath the downgradient operable unit, would have to be initiated. This would provide a redundancy and would not be cost-effective.

It appears that we may have a significant difference of opinion regarding background water quality and how it will be used to define the presence of contamination within an operable unit and how it will be used to establish cleanup standards. Timely resolution of this issue will be necessary to keep this Work Plan on schedule.

Recommendation:

Provide a new response and revised Work Plan text on this issue in accordance with the original recommendation to this deficiency, as noted in the May 24, 1989 comments.

7. **Deficiency:** Section 5.1.10, p. WP-164, para. 1
(Identified as comment #77 on May 24, 1989 comments.)

Apparently, VAM2D will be used in association with the column leach tests to simulate contaminant transport through the unsaturated zone, but there is no specific discussion of this model.

Recommendation:

Include a discussion of how VAM2D will be used in this analysis.

8. **Miscellaneous Comment:** Section 5.1.6, p. WP-150, para. 1
(Identified as comment #112 on May 24, 1989 comments.)

For added clarity, please note that the casing being described is a temporary casing.

9. **Miscellaneous Comment:** Section 5.1.7, p. WP-157
(Identified as comment #115 on May 24, 1989 comments.)

The same apparent redundancy still exists in item #3. Also, in item #4, only proposed wells are included in Table 29. Should this be "Table 30", instead?

10. **Deficiency:** Section 3.3.2.2, p. WP-87, top para. (partial)
(Identified as comment #148 on May 24, 1989 comments.)

The response provided does not address the original comment. At this point in time, observed levels of chloride may not exceed health based standards, but there is an implication that this element will not be considered further, since there is "no health risk".

Recommendation:

Slightly modify the last sentence regarding risk to read similar to subsequent statements of risk regarding sulfate, barium, vanadium, or iron.

NOTE: The following comments were not included in the May 24, 1989 comments. They are included as part of the review of the revised RI/FS Work Plan.

11. **Miscellaneous Comment:** Figure 14, p. WP-29

The units of the isolines should be noted in the figure explanation.

12. **Deficiency:** Section 3.1, p. WP-51

The revised Work Plan states that only the soil in source areas (i.e., soil immediately beneath the cribs) is proposed to be analyzed for the full list of target compounds and radionuclides at the CLP levels I, III, IV, and V. Notably, radionuclide analysis can be performed under level III or level V; level IV does not apply. All other media proposed for investigation have limited constituents proposed for analyses. Where analyses are proposed, it is mainly for radionuclides, cyanide, and a limited number of metals and non-organic constituents. As such, the technical approach in the text appears to be to perform full analyses only at the source and limited analyses in the other media. However, the text currently is not clear on what the technical approach will be.

Recommendation:

The text should clarify that additional parameters beyond those identified in Section 3.1 as known or suspected contaminants, may be detected in the source area. If that is the case, then the other media proposed for analyses will have to include these additional parameters. Please clarify this issue in the text. Given such an approach, it should also be specified in the text that the source area will be investigated first, followed by sampling and analyses of the other media.

13. **Miscellaneous Comment:** Section 3.1.3, p. WP-55

There appears to be a mistake on the notation of monitoring well 699-47-60. It is noted that this well monitors the confined aquifer when, in fact, it monitors the unconfined aquifer.

14. **Deficiency:** Section 4.1, p. WP-107 & Table 24

The methodology behind pairing data quality objectives (DQOs) with the CLP protocols is not clear. At the Work Plan stage, there should be a definite understanding of which samples will undergo a specific analytical protocol (CLP level I through V). The EPA has made it very clear that any analytical data used for risk assessment or to dismiss an individual unit/site from further investigation or remediation must be analyzed in accordance with level IV protocols. The only exception is when level V (special analytical services) is required. It should be noted that the use of level V protocols does not relieve DOE from providing the appropriate QA/QC documentation. The level V documentation should be comparable to that provided for level IV, in order to enable the regulators to assess the data quality.

Table 24 does not provide a level of detail that is of use to the regulators. In most cases, the proposed protocol to support risk assessment activities is level III or level V, rather than level IV. Based on Table 24 and the associated text on the protocol levels, it appears that selection of the "appropriate" or "required" protocol will be left to DOE. Without more specific definition of when the various protocols are appropriate or required, EPA can not concur with this section of the Work Plan.

Recommendation:

Expand Table 24 into a detailed description of which specific level of analysis will be used for each medium for each purpose. If more than one level is proposed, provide a separate rationale for each. This level of detail might easily result in a separate sheet to describe the approach for each medium.

Provide a better description or rationale in the text as to the criteria for selecting each of the five protocol levels, as they apply to the 200-BP-1 operable unit. The DQOs should be described in relation to the specific operable unit.

15. **Miscellaneous Comment:** Section 5.1.6, p. WP-149 and
Section 2.6.4, p. SAP/FSP-28

Nine new wells will be installed, rather than eight, as noted in these sections.

16. **Miscellaneous Comment:** Section 2.6.4, p. SAP/FSP-28

The acronym "RTS" is not understood and is not included in the list of abbreviations. Is this a typographical error, perhaps for "RI/FS"?

17. **Miscellaneous Comment:** Section 5.1.6, p. WP-155, para. 1

The reference citation should be "(WHC 1989 a)".

18. **Deficiency:** Section 5.1.11, p. WP-164

During a July 6, 1989, conference call, it was agreed that a detailed aquifer test plan was to be produced prior to aquifer testing and that this aquifer test plan would be noted in the Work Plan in the discussion of Task 11 -- Aquifer Tests. This description was not found.

Recommendation:

Provide a discussion of the aquifer tests in Section 5.1.11.

19. **Deficiency:** Plate 6-1

The scheduled decision point for Stage 1 drilling is now shown as February 1, 1990, just prior to initiation of drilling.

Recommendation:

Agreement was reached in the July Unit Manager Meeting that this decision point would be moved to the end of November 1989, after the evaluation of existing wells is completed. The schedule should be revised accordingly.

20. **Deficiency:** Appendix I

GEN II is listed on p. WP-172 as the pathway dose model. However, it is not included in Appendix I, the comparison of available codes for the RI/FS.

Recommendation:

List the GEN II model in Appendix I.

DISTRIBUTION COVERSHEET

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Subject
Comments on Revised Remedial Investigation/Feasibility Study Work Plan for the
200-BP-1 Operable Unit

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