



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

03-ERD-0113

MAY 06 2003

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MAY 13 2003

EDMC

Mr. Greg deBruler
Columbia Riverkeepers
P.O. Box 912
Bingen, Washington 98605

Dear Mr. deBruler:

EXPLANATION OF SIGNIFICANT DIFFERENCE FOR THE 100-NR-1 OPERABLE UNIT TREATMENT, STORAGE AND DISPOSAL INTERIM ACTION RECORD OF DECISION AND 100-NR-1/100-NR-2 OPERABLE UNIT INTERIM ACTION RECORD OF DECISION

Thank you for submitting comments on the above-referenced document in your electronic mail message dated March 31, 2003 to the U.S. Department of Energy, Richland Operations Office (DOE). We appreciate your input on Hanford Site cleanup decisions and your participation at the Hanford Advisory Board's River and Plateau Committee meetings where this subject was discussed from November 2002 to March 2003. Responses to your comments are included below.

Comment 1: "The record needs to be corrected, this is not *"a proposed change to an existing Record of Decision."* Please let the record state that this is, **a proposed change to an Interim Record of Decision.**"

Response to Comment 1:

As indicated in the title of this Explanation of Significant Difference (ESD), the title states, *"Interim Action Record of Decision."*

Comment 2: "It is unacceptable to remove the 30" irrigation scenario. USDOE cannot assure that that irrigation will not occur within the next 300 years or even the next 50 years, or that significant climatic changes will not occur. Considering the growth that will occur over the next 50 to 100 years, agriculture land will be in even greater demand. Institutional controls have a history of failing in the very short-term. Based on these considerations, USDOE must not remove the 30" irrigation scenario."

Response to Comment 2:

The DOE, Washington State Department of Ecology (Ecology), and U.S. Environmental Protection Agency (EPA), also known as the Tri-Parties, recognize your concerns, including past institutional control (IC) failures. However, the Records of Decision (RODs) requires that DOE submit a report to EPA and Ecology by July 31 of each year, or as required by the *Sitewide Institutional Controls Plan for Hanford CERCLA Response Action*, summarizing the results of the evaluation for the preceding calendar year, including improvements. This annual review of ICs is the primary mechanism to assure irrigation is not applied. EPA's recent revision of the IC guidance was developed to improve the viability of ICs based on past failures, and improvements were made to minimize IC failures. As identified in the *Record of Decision: Hanford Comprehensive Land-Use Plan Environmental Impact Statement (HCP EIS) (CLUP ROD)*, the 100-N location is identified as a preservation area, and also states that it may be necessary to restrict certain activities to prevent the mobilization of contaminants, the most likely example of which is the restriction of activities that discharge water to the soil. Future ICs will likely be elements in final RODs, and will be developed based on experiences gained through the implementation of interim action RODs. Additionally, a Comprehensive Conservation Plan (CPP) is under development by the U.S. Fish and Wildlife Service for managing lands in the Hanford Reach National Monument. One restriction in the Monument is no grazing or agricultural activity is allowed.

Comment 3: "USDOE should not move to an already defacto cleanup and assume that institutional controls is the only path forward. USDOE is obligated under the TPA, state and federal law to cleanup the source term to be protective of groundwater, and to cleanup the groundwater to its highest beneficial use, which in most cases is the drinking waster standard."

Response to Comment 3:

With the amount of contamination removed to date and down to an approximate depth of 4.6 meters (15 feet), and based on the evaluation of the balancing factors, use of ICs provides the best balance in protecting human health and the environment, including protection of groundwater. The actions in the soil removal remain protective of groundwater. Also, a pump and treat system continues to operate at the 100-N Area groundwater in accordance with the ROD.

Comment 4: "USDOE should not at this time attempt to move to a final Record of Decision before a comprehensive ecological risk assessment has been performed and all other legal requirements are met. There is no scientific basis for the statement in the ESD that "this will be protective of human health and the environment".

Response to Comment 4:

As indicated in your Comment Number 1, this is an interim action ROD, and the Tri-Parties are not proposing a final ROD. As final RODs are developed, the necessary data will be gathered, including any plans to support the final decisions. The scientific basis of the decision in the ESD is based on the balancing factors analysis and the administrative record.

Comment 5: "USDOE should not state this is "cost effective," when USDOE has not assessed what costs will be incurred from the loss of the cultural and natural resources under the Natural Resources Damage Assessment Act (NRDA)."

Response to Comment 5:

Costs associated with Natural Resource Damages are not required to be evaluated at this stage.

Comment 6: "Before any final decision is attempted, USDOE must perform a full Remedial Investigation and Feasibility Study of the entire N-Area. Columbia Riverkeeper hopes that this process will be an open process that involves the public and tribes in open dialogue around this very important cleanup process."

Response to Comment 6:

The Tri-Parties are not proposing a final ROD. As final RODs are developed, the necessary data will be gathered, including any plans to support the final decisions. Input from the public, stakeholders, and tribes are part of the cleanup process.

Comment 7: "To date, USDOE has not met the Monitored Natural Attenuation requirements under CERCLA for this area, these must be met before any decision is made."

Response to Comment 7:

DOE continues to follow the RODs. No specific Monitored Natural Attenuation requirements are identified in these RODs.

Comment 8: "USDOE has failed to assess the effect of the sodium plume in the N-Area when it migrates into the strontium-90 plume. This assessment must occur before any final decisions are made."

Response to Comment 8:

As final RODs are developed, the necessary data will be gathered, including any plans to support the final decisions. The effect of the sodium plume in the groundwater at the 100-N Area is not within the scope of the ESD.

Comment 9: "The flood scenario has been ignored by all assessments to date. One of the requirements under CRCIA is to assess flooding from a catastrophic flood. One can not assume that the dams will be intact in 100 years, let alone 200 years or longer."

Response to Comment 9:

Assessment of a flood scenario is not within the scope of the ESD.

Comment 10: "The current alternative strategies are myopic in focus and more work needs to be done in identifying and implementing other technologies, in order to remediate the source term, groundwater and for the long-term protection of groundwater. Monitored Natural Attenuation is not acceptable."

Response to Comment 10:

Evaluation of these other alternatives in the ESD was provided against the use of the current excavation equipment in order to compare the balancing factors. The Tri-Parties recognize this effort was not a feasibility study for changing the interim action remedy. No changes in the ESD were proposed regarding the groundwater, and a pump and treat system continues to operate at the 100-N Area as required by the ROD.

Comment 11: "The RCRA performance standards of WAC 173-303-610 (2) have not been met and must be met before this decision is made."

Response to Comment 11:

Cleanup efforts continue at the 116-N-1 waste site. Upon completion, certification of closure is required to verify that the performance standards have been attained.

Comment 12: "This ESD has failed to identify how much contamination remains and therefore RCRA closure decisions should not be made until such characterization data is acquired."

Response to Comment 12:

The ESD identifies the contamination levels below the 116-N-1 waste site and is also contained in Figure 2. Also, Table A-1 indicates this contaminated volume to be 458,562 tons.

Comment 13: "This ESD does not acknowledge that RCRA groundwater monitoring requirements have not been met. No action should be taken until such requirements have been satisfied."

Response to Comment 13:

The focus of the ESD was to determine the extent of additional excavation at the 116-N-1 waste site based on the balancing factors analysis, revise the annual IC reporting requirement, and prohibit irrigation at the 116-N-1 waste site. DOE is unaware of any specific issue with groundwater monitoring requirements.

Comment 14: "This ESD does not state how Washington States water quality standards will be met, specifically WAC 173-200, which applies to all groundwaters. These standards do apply and must be met."

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Response to Comment 14:

As stated in Washington Administrative Code (WAC) 173-200-010(3)(c), the groundwater standards of WAC 173-200 do not apply to cleanup actions approved under the *Comprehensive Environmental Response, Compensation and Liability Act* (CERCLA) authority. Nevertheless, the actions identified in the ESD will ensure that releases from the 116-N-1 unit will not cause an exceedance of the groundwater standards in WAC 173-200, which identifies the 8 picocuries/liter drinking water standard for strontium-90.

If you need further information or assistance, please contact me at (509) 372-1544.

Sincerely,



Douglas C. Smith
Project Manager

ERD:DCS

cc: N. Ceto, EPA
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Task Detail Report

05/06/2003 02:06 PM

Task #: DOE-ERD-2003-0113

Parent Task #:
Subject: CONCUR: ESD FOR THE 100-NR OPERABLE UNIT
 TREATMENT, STORAGE AND DISPOS
Category: None
Due Date:
Originator: Gloria, Ofelia T

Reference #:
Deliverable: None
Status: Open
Priority: High
Originator Phone: (509)376-5441

Assigned By: Self
Assigned Role: Originator

Assigned Date: 05/06/2003
Assigned Due Date:

Routing Lists: **Route List - Active**

Smith, Chris - Approve - Approve - 05/06/2003 13:24

Instructions:

bcc: ERD OFF FILE
 ERD RDG FILE
 DC SMITH,ERD
 HE BILSON, AMRC
 KD BAZZELL, ERD
 KV CLARKE, COM
 EB DAGAN, RCA
 DT EVANS, FTD
 MH SCHLENDER, DEP
 BD WILLIAMSON, OCC

RECORD NOTE: Responding to comments of Columbia Riverkeepers regarding ESD for the 100-NR Operable Unit Treatment, storage, and disposal interim action ROD.

Attachments: 1. 03-ERD-0113.doc

Comments

Task Due Date History:

Date Modified

Task Due Date

Modified By

-- End of Report --

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 MAY 07 2003
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