

START
United States
Environmental Protection
Agency

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May 24, 1993

Roger D. Freeberg
Director, Environmental Restoration Division
Department of Energy
Richland Operations Office
P.O. Box 550
Richland, WA 99352



Re: Site Evaluation Report for the Environmental Restoration
Storage and Disposal Facility

Dear Mr. Wisness

The Environmental Protection Agency (EPA), the Department of Ecology (Ecology), and their contractors have completed the review of the Site Evaluation Report for the Environmental Restoration Storage and Disposal Facility (ERSDF), (WHC-SD-EN-EV-009). Enclosed are the combined comments on the technical and regulatory content of this report. 29687

EPA does not expect to approve this document, however we believe that it will be a critical document used in the overall justification for the ERSDF. It would therefore be in the best interest to address the substantive comments. EPA requests that a formal response to comments be completed.

A Word Perfect 5.1 diskette is enclosed for you convenience.

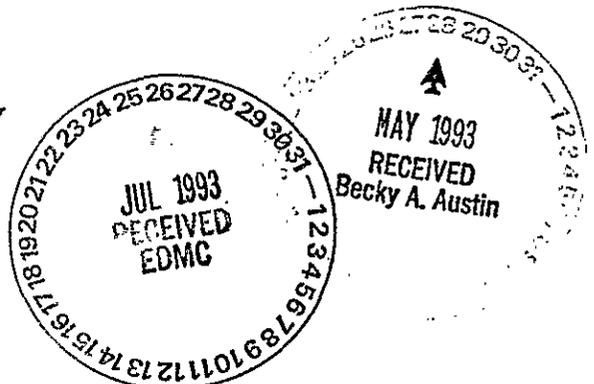
If you have any questions or concerns regarding these comments, please contact me at (509) 376-4919.

Sincerely,

Pamela S. Innis
Pamela S. Innis
Unit Manager

enc.

cc: R.F. Stanley/ D.R. Jansen - Ecology
D.C. Nylander/ D. Teel - Ecology
B.L. Foley, DOE-RL
B.A. Austin, WHC
A. DeAngeles, PRC
B. Lum, USGS
Administrative Record, ERSDF



The U.S. Environmental Protection Agency has completed the review of the site evaluation report for the Environmental Restoration-Storage and Disposal Facility (ER-SDF [WHC-SD-EN-009]). The document is dated April 27, 1993 and was prepared by the U.S. Department of Energy (DOE).

The purpose of the site evaluation report is to document the technique, rationale, and criteria used to select the preferred location for siting the ER-SDF at Hanford. Ten preliminary screening criteria derived from the Washington Administrative Code (WAC) 173-303-282 and DOE orders were used to screen candidate sites located on the 200 Area plateau area for further evaluation. Two sites which passed the initial screening were further evaluated using weighted criteria to identify the preferred site. Comments on the report follow.

GENERAL COMMENTS

The screening and weighted criteria are described in the report in general terms only. The results of the screening evaluation and weighted evaluation lack supporting rationale which limits the reviewer's ability to evaluate the report and accurately assess the merits of the preferred site.

The alternative sites are not adequately described in the site evaluation report. Without this information, evaluation of sites is impaired using either the qualitative or quantitative screening criteria. All information on the sites that is relevant to the siting criteria should be included in the report.

The weighted evaluation of the two candidate areas is unclear. The weight given to the two main evaluation categories requires justification. The maximum scores for the different evaluation elements are not explained. Similarly, there is no explanation of the scoring system, therefore it is unclear how scores were determined for the various evaluation elements. Since the system of scoring cannot be independently evaluated it is not possible to judge from the report the appropriateness of site 3 as the preferred location for the ER-SDF. The report should explain the basis for the weighted criteria and the calculations of each of the scores listed in Table 2.

In summary, the site evaluation report does not demonstrate the use of an unbiased screening and evaluation approach to select a preferred site for the ER-SDF. Screening and evaluation criteria, the scoring system, land uses, and alternative sites should be described in more detail in the site evaluation report to clearly demonstrate the reasons for selection of the preferred site.

SPECIFIC COMMENTS

1. **Section 1.3.2**

The fourth sentence notes that borrow area stockpiles are potentially out of the scope of the ER-SDF. It is reasonable to assume that stockpiles of material for barriers and backhaul are within the scope of the ER-SDF.

The fifth and sixth sentences note that the area estimation must be increased by 100% to allow for error, increased scope and future expansion. The previous section notes that the waste volume estimate is a "worst case" scenario. It is apparent that the land requirement may be overestimated. It is recommended that land requirement be reexamined.

2. **Section 4.1.3**

This section, which discusses groundwater screening criteria, does not describe screening level standards used to determine whether or not alternative sites meet the screening criteria. Section 4.1.3 explains that consideration must be given to evapotranspiration rates and soil permeability,

among other factors, but these are not listed in the screening checklist (Table 1). The site screening criteria should identify quantitative values for depth to groundwater, soil permeability, evapotranspiration, and other factors that are considered to be protective of groundwater, and which are used to determine site selection.

3. **Section 4.2, second paragraph, third sentence**

This sentence notes that "...no plants or mammals...". Consideration should be given to reptiles and birds when selecting a site for the facility.

4. **Section 5.3.1**

The second paragraph discusses release scenario modeling. The modeling methodology and the results that show that more inventory is available at site 3 than at site 1, and that an accidental radiological release would be less severe at site 3 is unexplained in the report, but should be.

The third paragraph discusses the effects of groundwater remediation. Current practice in the 200 areas allows for release of liquids to the soil column. Elimination of these liquid discharges would also impact future groundwater levels. This sentence appears redundant.

Supporting documents should be referenced for the parameters discussed in the fourth paragraph. Without this information it is not clear what conditions these travel times represent. A brief description of the calculations and data sources would suffice.

The word "controls" is used in the seventh sentence of the fourth paragraph. It would be more appropriate to note that characterization of the area is limited.

5. **Section 5.3.2, page 12 and 13**

The presence of a contaminant plume beneath site 3 appears to be in conflict with the screening criteria to eliminate existing RCRA and CERCLA sites which may be potential disposal sites from further evaluation (see Section 4.1.10). There appears to be substantial potential for the contaminant plume to be designated as an operable unit under CERCLA at some time in the future. Should this occur, the site would not meet this criterion.

The recommendations of the Future Site Uses Working Group were taken out of context in second paragraph. It is very clear that their recommendation is to minimize use of uncontaminated land for waste management activities.

6. **Section 6.0, page 14, second paragraph**

The last sentence states that a minimum allowance of 50% for expansion of the ER-SDF is appropriate. Section 1.3.2 notes that an additional 100% was added to the land requirement to all for error, etc. Please correct this inconsistency or clarify the reasoning behind adding and additional 50% to the land requirement.

7. **Section 6.0 and 7.0, pages 14 through 18**

Further optimization of land use could be realized by using available portions of the corridor adjacent to the State Leased Land. The Future Site Uses Working Group recommended that the waste management area encompass the "squared off" boundary of the 200 Area including the State Leased Land. An effort should be made to optimize the use of the corridor area as much as possible.

CORRESPONDENCE DISTRIBUTION COVERSHEET

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subject: Site Evaluation Report for the Environmental Restoration Storage and Disposal Facility

INTERNAL DISTRIBUTION

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