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93-ERB-019

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U.S. Environmental Protection Agency
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Mr. David B. Jansen, P.E.
Hanford Project Manager
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

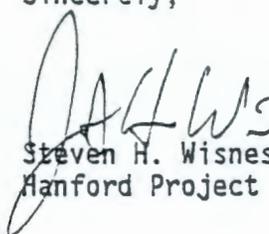
Dear Messrs. Day and Jansen:

RESPONSE TO THE STATE OF WASHINGTON DEPARTMENT OF ECOLOGY'S (ECOLOGY) REVIEW OF THE SEMIWORKS SOURCE AGGREGATE AREA MANAGEMENT STUDY REPORT (AAMSR) DRAFT A

This letter transmits the responses to comments received from Ecology and the U.S. Environmental Protection Agency on Draft A of the Semiworks AAMSR.

If you have any questions, please contact Mr. P. M. Pak at (509) 376-4798.

Sincerely,


Steven H. Wisness
Hanford Project Manager

ERD:PMP

Enclosure

cc w/o encl:
B. A. Austin, WHC
R. A. Carlson, WHC
J. L. Monhart, EM-442
R. D. Wojtasek, WHC

cc w/encl:
C. Cline, Ecology (2 copies)
M. K. Harmon, EM-442
P. Innis, EPA
B. Kane, Parametrix
A. DeAngelis, PRC
J. Sprecher, Brown and Caldwell
D. D. Teel, Ecology (3 copies)



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**ENVIRONMENTAL ENGINEERING AND GEOTECHNOLOGY
COMMENT RECORD FORM**

1. Date 09/17/92 2. Page 1 of 12
3. Document Title/Number Semi-Works Source Aggregate Area Management Study Report,DOE/RL-92-18
4. Lead Engineer/Scientist D. B. Erb 5. Organization 200/300 Areas
Environmental Engineering
6. Location/Phone/MSIN 450 Hills/2-1402/H4-55
7. Reviewer Ecology/EPA 8. Organization _____
Sign and Print Name Date
9. Location/Phone/MSIN _____
10. The document was reviewed, and the reviewer had no comments.
 Reviewer _____ 11. Date _____
12. I have reviewed the disposition of comments with the Lead Engineer/Scientist.
 Reviewer _____ 13. Date _____

14. Item	15. Comment(s) (Provide technical justification for the comment and proposed action to correct or resolve the comment.)	16. Disposition (Provide brief justification if NOT accepted.)
	SPECIFIC COMMENTS:	
1.	Section 2.2, page 2-2, lines 39-40 State the status or use of the 201-C Process Building from 1967 to decommissioning in 1983.	Accept. Page 2-2, Line 40. After sentence ending . . .until 1967. Add "From 1967 until 1983 the facility remained in safe storage mode."
2.	Section 2.3.1, pages 2-6, line 6 A description of decontamination procedures implemented, wastes generated, and disposal methods used should be included.	Reject. Beyond the scope of the AAMS report.
3.	Section 2.3.1., pages 2-6, line 21 The Comprehensive Environmental Response, Compensation and Liability Act requirements to be integrated into the decommissioning project should be specified.	Accept. Add Page 2-6, Line 20. Delete end of sentence after however, and replace with ". . . however, further construction was suspended when CERCLA activities superseded decommissioning activities at Semi-Works. Barrier completion or any other remedial activities will be based on conclusions drawn from completion of the CERCLA process."
4.	Section 2.3.1.1, page 2-6, lines 19-21 State the plans for the completion of the entire barrier.	Accept. See response No. 3 above.

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14. Item	15. Comment(s) (Provide technical justification for the comment and proposed action to correct or resolve the comment.)	16. Disposition (Provide brief justification if NOT accepted.)
5.	<p>Section 2.3.1.1.1, page 2-7 and Table 2-2, page 2T-2a</p> <p>The text in this section states that plutonium, strontium, cerium, technetium, and promethium were products obtained during operations of the 201-C Process Building. Only plutonium and strontium are listed in Table 2-2 as part of the reported radioactive waste inventory. In addition, americium-241 is listed in the table but not discussed in the text.</p>	<p>Accept. Page 2-6, Line 27. Delete end of paragraph after . . .in 1961 and add ". . . primarily for the recovery of strontium from process waste. Cerium, technetium, and promethium as well as minor quantities of americium and curium in the final production run were also extracted (Figure 2-10). The fission products were from wastes generated in B-Plant and other process buildings and stored in the Tank farms."</p> <p>Note: Table 2-2 (see Page 2-7, Line 28) presents estimated radionuclide for the 201-C facility. No information on other fission products inventories was available in the literature.</p>
6.	<p>Section 2.3.1.1.1, pages 2-7, lines 22-24, also pages 2-8, lines 22-23</p> <p>The criteria and procedure used for determining whether the dismantled portions of the structures are either contaminated or uncontaminated should be specified. It is recommended that contaminants and concentrations be identified if available.</p>	<p>Accept. No change, this information not currently available. It was presumably based on activity measurements taken during the demolition process but could not be documented in the time frame available.</p>
7.	<p>Section 2.3.1.1.1, pages 2-7, line 27</p> <p>The components of the complete proposed engineering cover to be installed should be identified, as well as the initial component, the ash cover.</p>	<p>Reject. Other components in proposed engineered cover are identified on Page 2-6, Lines 4 through 12.</p>
8.	<p>Section 2.3.1.1.3, pages 2-8, line 18</p> <p>The text should clearly indicate whether process cooling water was the only waste discharged. If it was not, other waste streams and disposal locations should be identified.</p>	<p>Accept. Change Page 2-8, Line 18 to read "Liquid wastes discharged from this building were acidic process wastes and process cooling water."</p> <p>Note: Disposal locations are covered in Section 2.4.</p>
9.	<p>Section 2.3.1.1.3, page 2-8, lines 20-25</p> <p>Explain how the 271-C Aqueous Makeup and Control Building was contaminated if it was only used as a control center and non-radioactive solution makeup area.</p>	<p>Accept. Page 2-8, Line 16. After sentence ending . . .(DeFord 1992). Add "Portions of this building, primarily the control room, were contaminated by over-pressurization of process tanks in 201-C forcing radioactive solutions up instrument lines and subsequently leaking onto the floor."</p>

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14. Item	15. Comment(s) (Provide technical justification for the comment and proposed action to correct or resolve the comment.)	16. Disposition (Provide brief justification if NOT accepted.)
10.	<p>Section 2.3.1.1.4, page 2-9, lines 35-36</p> <p>The estimated radionuclide waste inventories for the 291-C Ventilation system are not listed in Table 2-2.</p>	<p>Accept. Page 2-9, Lines 19-21. Replace existing paragraph with "The radionuclide inventory reported for 291-C, primarily ⁹⁰Sr and ⁹⁰Y (DeFord 1992), was concentrated in the fiberglass filters, HEPA filters, and the inside of the exhaust stack. No exact inventories are known."</p> <p>Note: See footnote 4, Table 2-2 on Page 2T-2b.</p>
11.	<p>Section 2.3.1.1.6, page 2-10, lines 27-30</p> <p>Explain how tanks and piping were contaminated in the 276-C Solvent handling facility. The text implies only process solvents for treatment and storage.</p>	<p>Accept. Page 2-10, After Line 25 add "Contamination in the 276-C building was limited to a diluent vessel on the third floor and in filter housings."</p> <p>Line 28. Change "tanks and piping" to "equipment."</p>
12.	<p>Section 2.3.1.1.8, pages 2-11, line 24</p> <p>The "solid special nuclear materials and fuels" used during criticality research should be identified.</p>	<p>Accept. Page 2-11, Line 24. After . . .and fuels (DeFord 1992). Add "such as plutonium blocks, uranium blocks and slabs, and fuel assemblies from the Fast-Flux Test Facility and other reactors."</p>
13.	<p>Section 2.3.2.1, page 2-12, line 19</p> <p>Consider including the chemical inventory for the 241-CX-70 Storage Tank in Table 2-3.</p>	<p>Accept. Available information about the chemical inventory for the 241-CX-70 Storage Tank is explained in footnote numbers 3 and 5 of Table 2-3, page 2T-3b. Therefore, no changes will be needed.</p>
14.	<p>Section 2.3.3.1, pages 2-15, line 33</p> <p>The method used to estimate the volume of contaminated soil at the 216-C-1 Crib as 200 cubic yards should be described. This comment applies to all contaminated soil volumes referenced on page 2-16, line 12; page 2-16, line 34; page 2-17, line 13; page 2-17, line 37; and page 2-18, line 40. If the contaminated soil volumes include the affected vadose zone, the method for determining the extent of contamination should be described.</p>	<p>Reject. Volumes are from the WIDs database. To be consistent with other AAMS reports, these data have been removed from the text and placed in Table 2-1 on Page 2T-1. Additional discussion of estimating methods is beyond the scope of this document.</p>
15.	<p>Section 2.3.3.2, pages 2-16, line 17</p> <p>The depth of the gravel cover, and a description of the condition of the gravel road running across the former 216-C-3 Crib site should be included to ensure that contaminated material is not uncovered.</p>	<p>Reject. This was a temporary access road used during decommissioning activities for the 241-CX-70 storage tank. However for clarity change Page 2-16, Line 17 to read "Currently an approximately one foot thick temporary gravel road runs across part of the crib site to provide access for remediation efforts at the 241-CX-70 and 241-CX-72 Storage Tanks."</p>

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14. Item	15. Comment(s) (Provide technical justification for the comment and proposed action to correct or resolve the comment.)	16. Disposition (Provide brief justification if NOT accepted.)
16.	<p>Section 2.3.4.1, pages 2-19, line 39</p> <p>This section states that the 291-C Stack receives "seal water effluent from the stack." A short definition of the effluent should be included.</p>	<p>Accept. Page 2-19, Line 39. Change to "...and received condensate from the stack and seal water from the fiberglass filter assembly."</p>
17.	<p>Section 2.3.5.1, pages 2-21, lines 1-7</p> <p>The constituents and volumes of the "miscellaneous wastewater" discharged to the 216-C-9 Pond from the Critical Mass Laboratory and 201-C Process Building should be identified.</p>	<p>Accept. Information not currently available so no changes made to text.</p>
18.	<p>Section 2.3.10.1, pages 2-25, line 36</p> <p>The previous locations (i.e., process tanks and contents) of the two pumps removed from the 201-C Process Building which leaked during Unplanned Release UN-200-E-36, should be identified. The constituents of the released liquid should also be determined.</p>	<p>Accept. Information not currently available so no changes made to text.</p>
19.	<p>Section 2.4.1.1.1, pages 2-29, line 25</p> <p>If the reduction and oxidation plant (REDOX) produced high-level wastes, then the waste composition and disposal or storage location(s) should be included in this section. Also, the two waste management units listed, 216-C-1 and 216-C-3 Cribs were only active between 1953 and 1954. The timeframe that the REDOX process was operational and the disposal locations used for the waste streams generated should be identified.</p>	<p>Accept. Page 2-29, Line 27. Add Bulleted item "241-C and other tank farms received high level process waste between 1952 and 1953."</p> <p>No other specific information on Semi-Works found.</p> <p>Figure 2-10 has been modified to reflect time frame of REDOX operations.</p>
20.	<p>Section 2.4.1.1.2, pages 2-30, line 9</p> <p>The list of plutonium uranium extraction plant (PUREX) wastes generated includes only low-level wastes routed to the cribs and wastes transferred to the 241-CX-72 Storage Tank in 1952. High-level PUREX wastes generated and disposal locations should be included in this section.</p>	<p>Accept. Page 2-30, Line 11. add Bulleted item "241-C and other tank farms received high level process waste between 1955 and 1956."</p> <p>No other specific information found.</p>
21.	<p>Section 2.4.2, pages 2-31, line 21</p> <p>Provide a statement clarifying whether the Critical Mass Laboratory generated high-level wastes. If it did, describe procedures for disposing or storing the wastes.</p>	<p>Accept. Currently no high level liquid waste known.</p> <p>Page 2-31, Line 23. After ... (Nielsen 1990). Add "No high level wastes were identified in the literature as having been generated at the Critical Mass Laboratory."</p>

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14. Item	15. Comment(s) (Provide technical justification for the comment and proposed action to correct or resolve the comment.)	16. Disposition (Provide brief justification if NOT accepted.)
22.	<p>Table 2-2, page 2T-2b</p> <p>Supply radionuclide inventory information for UN-200-E-98 and -141 to table; state if quantities are unknown.</p>	<p>Reject. No radionuclide data available.</p>
23.	<p>Table 2-2, page 2T-2b</p> <p>Define note (8) other sources.</p>	<p>Accept. Note 8 has been removed. Table 2-2 has been modified to reflect that the 241-CX-70 Storage Tank is empty. In addition, the inventory for the 241-CX-70 Storage Tank has been modified and Note 4 changed.</p> <p>Page 2-12, Line 32. After ". . . May 1992," insert, "and the tank is now empty."</p> <p>Lines 33 through 35. Delete sentence starting "The estimated. . ."</p>
24.	<p>Section 3.6.3, pages 3-37, lines 38-42</p> <p>Additional information on the wells in the vicinity of the Semi-Works area (Wells 699-40-100-C, 699-528-EO, 6652-C, 699-S1-8J), such as depth, screened interval, and aquifer should be provided.</p>	<p>Reject. These wells are in some cases miles distant from the Semi-Works Aggregate Area, and this information is not relevant. In any case, they fall under the jurisdiction of the 200 East Groundwater AAMS report.</p>
25.	<p>Figures 3-17 and 3-18</p> <p>Clarify the statement "vertical exaggeration x 5 ? Is it Vertical exaggeration = 5 x horizontal scale ?"</p>	<p>Reject. Vertical/horizontal scales are consistent with those provided in other AAMS reports.</p>
26.	<p>Figure 3-36</p> <p>None of the sections presented (eg. figures 3-17 and 3-18) shows Unit E gravels as depicted in figure 3-36. Investigate if there is any Gravel E unit in the geologic cross-sections and if present, modify the figures accordingly.</p>	<p>Accept. Figure 3-36 has been modified to eliminate the occurrence of Unit E in Semi-Works Aggregate Area. This is based on lack of supporting data on structure and isopach maps of Unit E presented on Figures 3-24 and 3-25.</p>
27.	<p>Section 4.1.1.1, page 4-4, First para</p> <p>Give information on the present status of the air samplers.</p>	<p>Accept. See Page 4-3, Line 30 and Page 4-4, Line 7. Page 4-4, Line 1. After sentence ending ". . . and total U. Add "Data typically take one to two years to process and validate. Data are typically reported in yearly surveillance reports such as Schmidt et al. 1990."</p>
28.	<p>Section 4.1.1.2.3, pages 4-6, line 5</p> <p>An estimate for the total surface area contaminated within the Semi-Works should be provided.</p>	<p>Reject. Estimate is beyond scope of AAMS report.</p>

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14. Item	15. Comment(s) (Provide technical justification for the comment and proposed action to correct or resolve the comment.)	16. Disposition (Provide brief justification if NOT accepted.)
29.	<p>Section 4.1.1.5, pages 4-9, lines 15-33</p> <p>This paragraph attempts to conservatively estimate the potential for subsurface contaminant migration from the vadose zone to groundwater by comparing the waste volume discharged to the pore volume. This is an oversimplification of the complex factors affecting fate and transport of contaminants in the vadose zone. The mobility of the liquid contaminants depends on the volume of the discharge, as well as the physical and chemical properties of the contaminants and the hydraulic properties of the porous medium. A statement should be added that the fate and transport of contaminants due to various processes were not included in this analysis.</p>	<p>Accept. Page 4-9, Delete Lines 15 through 33, and insert "Additional information on the potential for contaminants to migrate to groundwater can be inferred from the waste inventories of the waste management units (see Tables 2-1, 2-2, and 2-3). Those units that have received large volumes of liquid are more likely to have caused subsurface contaminant migration. The potential for liquid wastes to have migrated through the vadose zone to the groundwater was estimated by comparing the volume of waste discharged at each waste management unit to the estimated pore volume in the vadose zone soil column below the waste management unit. If the volume of liquid discharged to the ground is larger than the total soil column pore volume, then it is likely that wastewater may have reached the groundwater. These calculations are summarized in Table 4-14. They are based upon several conservative assumptions: (1) the discharged water does not spread out laterally from the point of discharge (i.e., the volume of affected vadose zone is equal to the depth to groundwater times the plan view cross-sectional area of the base of the waste management unit); (2) there is no significant change in liquid volume being introduced to the soil column due to evapotranspiration or precipitation; and (3) the average porosity of the soil column is between 0.10 and 0.30 (the upper and lower porosity estimates shown in Table 4-14). If the amount of waste received was greater than the most conservative porosity (0.1) then the waste management unit was considered to have the potential to migrate to the groundwater. According to these calculations, six waste management units have the potential for the migration of liquid discharges to the unconfined aquifer from past operations: the 216-C-1, the 216-C-3, 216-C-4, 216-C-6, 216-C-10 Cribs and the 216-C-9 Pond. This analysis does not take into account long-term drainage which may be occurring at all sites which received liquid waste."</p>

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14. Item	15. Comment(s) (Provide technical justification for the comment and proposed action to correct or resolve the comment.)	16. Disposition (Provide brief justification if NOT accepted.)
30.	<p>Section 4.1.2.2.2, pages 4-11, line 31</p> <p>A rationale for not reporting the results of the investigation of high levels of radioactivity detected in soils overlying the 241-CX-71 Storage Tanks should be included.</p>	<p>Accept. No additional information found. Report based on verbal communication with WHC personnel during research for this paper. No record of additional investigation.</p>
31.	<p>Section 4.1.2.2.3, pages 4-11, line 39</p> <p>Information on the thickness of the concrete slab installed over tank 241-CX-72 and the volume of surface soils removed before concrete was installed should be provided.</p>	<p>Reject. For clarity on Page 4-11, Line 40. Add "temporary" before concrete slab and continue sentence with "to support sampling equipment."</p>
32.	<p>Section 4.1.2.3, pages 4-12 and 13</p> <p>This section on cribs and drains contains very little site-specific information on these waste management units. At a minimum, estimated volume of contaminated soils in the cribs reported in Section 2.3.3, and suspected contaminants should be included in this section.</p>	<p>Reject. This comment rejected based on inclusion of this information in Section 2. In order to alleviate redundancy, data in Sections 2 and 4 were segregated to present ascertainable historical data and to develop a conceptual model based on those data, respectively, with the explicit intent of not duplicating our effort.</p>
33.	<p>Section 4.1.2.5, pages 4-14, line 4</p> <p>This section indicates no radiation survey was performed but Section 2.3.5.1 refers to a radiation survey performed in 1978. This inconsistency should be clarified.</p>	<p>Accept. Page 4-14, Line 4. Delete last sentence of paragraph beginning with "No surface. . ." and insert: "No recent surface radiation survey was located for this pond; however, a survey performed in 1978 detected no surface radiation."</p> <p>Table 4-5 has been modified for the 216-C-9 Pond row to include Ref. - 2; Inspection date -1978, ct/min - ND; dis/min - ND; mrem/hr - NA; and Smearable Alpha in dis/min - NA.</p> <p>Table 5-1 has been modified for the 216-C-9 Pond row to include ND in the ct/min and the dis/min columns.</p>
34.	<p>Section 4.1.2.10.5, pages 4-16, line 13</p> <p>The volume or nature of contamination known for the soils buried near the 201-C Process Building should be included.</p>	<p>Accept. Page 4-16, Line 13. Add "excavated while repairing the flange leak" after "Contaminated soil."</p> <p>No specific information on the volume or nature of the contamination found.</p>
35.	<p>Figure 4-1, page 4F-1</p> <p>Figure 4-1 should show the prevailing wind direction, as well as the high-volume air sampler locations.</p>	<p>Reject. A wind rose presenting annual prevailing wind direction is already shown on Figure 3-7. The air sampling locations shown on Figure 4-1 are in fact the high volume air samplers.</p>

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14. Item	15. Comment(s) (Provide technical justification for the comment and proposed action to correct or resolve the comment.)	16. Disposition (Provide brief justification if NOT accepted.)
36.	<p>Tables 4-4, 4-7, 4-8, 4-9; pages 4T-4 through 4T-9</p> <p>These tables present the results of air sampling (Table 4-4), soil sampling (Tables 4-7 and 4-8), and wastewater sampling (Table 4-9). The health and environmental significance of the contaminant concentrations detected should be discussed. The impact of these contaminants and concentrations on the selection of contaminants of concern should also be discussed.</p>	<p>Reject. Evaluation of human and ecological health effects or risks will be performed as part of the risk assessment task according to the Hanford Baseline Risk Assessment Methodology.</p>
37.	<p>Section 5.2.1, page 5-3, second para</p> <p>Recent radiation surveys performed in 14 of 25 Semi-Works AAMSR, but which units were completed is not stated. Of the 14 units surveyed, 10 had no contamination, which ones did or did not? Provide a table listing units completed, citing which units had contamination, significant changes reference to past surveys.</p>	<p>Accept. Page 5-3, Line 41. After sentence ending ". . . waste management units" add "(see Table 5-1)." On Line 42, after last sentence add "The units where contamination was detected were the 291-C Ventilation System, the 241-CX-70 and 241-CX-72 Storage Tanks, and the 216-C-2 Reverse Well.</p> <p>Reject comparison to past surveys, since scope of work is to characterize current status of each unit.</p>
38.	<p>Section 5.2.2, page 5-4, lines 34-41</p> <p>The Westinghouse Hanford Environmental Protection group policies state that "the presence of any alpha constitutes a potential threat to human health and qualifies a waste management unit for high priority". Current site conditions (i.e., the presence of an ash barrier) could reduce the human health risk associated with contamination, but until current sampling/surveying is completed, past radiological surveys confirming contamination should be used in the identification of high priority sites. Additional sites should be classified as high priority until data can show no contamination is present.</p> <p>The above is also applicable to section 5.4, page 5-7, lines 33-40</p>	<p>Reject. Existing conditions need to be taken into consideration when assessing priorities. The ash cover provides protection against risk to workers exposed on a short-term basis. This is especially the case for "smearable" alpha.</p>

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14. Item	15. Comment(s) (Provide technical justification for the comment and proposed action to correct or resolve the comment.)	16. Disposition (Provide brief justification if NOT accepted.)
39.	<p>Section 5.2.2, page 5-5, lines 4-6</p> <p>The test states that posting and access controls are to be implemented at a level of 100 ct/min above background beta/gamma, and/or 20 ct/min alpha, for the purpose of personnel protection. However, the current WHC Radiological Worker II Training Manual list allowable contamination limits for personnel as 100 ct/min above background beta/gamma and 3 ct/min alpha. These limits are also criteria for the identification of high priority waste management units.</p>	<p>Reject. As consistent with other AAMS reports, the criteria are 100 ct/min above background beta/gamma and/or 20 dis/min alpha. However, the date of the reference for WHC-CM-4-10 needs to be changed from 1988b to 1992c on page 5-5, line 1, and on p. 10-10 of the references, with associated reordering. In addition, the 20 ct/min needs to be changed to 20 dis/min on page 5-5, lines 5-7; and on page 9-3, line 13.</p>
40.	<p>Section 5.2.3, page 5-5, line 34</p> <p>Reference to MIBK is an acronym not listed on page xi or xii. Add MIBK to list.</p>	<p>Accept. Add MIBK methyl isobutyl ketone to p. xi.</p>
41.	<p>Section 5.3, line 18-19, first para</p> <p>Ranking of hazards is performed by HRS, mHRS, and Westinghouse Hanford Environmental Protection Group. Why mention the latter when not a single unit is prioritized using this method, as in Table 5-1? Provide the criteria used to prioritize the sites to justify enabling regulators to make decisions regarding its validity or relevance (Westinghouse Hanford Environmental Protection Group).</p>	<p>Reject. The Westinghouse Hanford Environmental Protection Group ranking is presented to maintain consistency with other AAMS reports. The text description of the ranking systems is also consistent with other AAMS reports.</p>
42.	<p>Section 5.3, page 5-6, lines 30-32</p> <p>The text refers to criteria used in HRS scoring. Certain criteria have changed since the finalization of the HRS on December 14, 1990, and the text should note if scoring was done using the old system.</p>	<p>Accept. Page 5-6, Line 30, the first sentence should be changed to read: The PA/SI screening was performed using EPA's HRS (prior to finalization of the HRS in December, 1990) and with the mHRS.</p>
43.	<p>Section 5.4, page 5-7, lines 30-31</p> <p>The text should be changed to reflect additional high priority sites.</p>	<p>Reject. See response for No. 38.</p>

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**ENVIRONMENTAL ENGINEERING AND GEOTECHNOLOGY
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14. Item	15. Comment(s) (Provide technical justification for the comment and proposed action to correct or resolve the comment.)	16. Disposition (Provide brief justification if NOT accepted.)
44.	<p>Table 5-1, page 5T-1a</p> <p>Several waste management units rated as low priority in the table should be rated as high priority. using the criteria presented in the AAMSR for the identification of high priority sites, the following waste management units should be considered as high priority: 201-C process building, 291-C ventilation system, Storage Tanks 241-CX-70 and 241-CX-72, and the 216-C-2 Reverse well.</p>	<p>Reject. See response for No. 38.</p>
45.	<p>Section 5.4, pages 5-7, line 16</p> <p>Section 2.3.2.3, page 2-14, line 10, indicates that transuranic sludge material is still present in tank 241-CX-72. This tank is a single-shell carbon steel tank that began operation in 1957 and has potential to release transuranic material directly to the environment. The 241-CX Storage Tanks were not evaluated by the hazard ranking or modified hazard ranking systems. Provide justification for the low priority assigned to this waste management unit.</p>	<p>Reject. As discussed in Section 2.3.2.3, an investigation of the recent status of the 241-CX-72 Storage Tank was conducted, and a decommissioning procedure determined. Remaining waste in the tank is in the form of dry sludge, which would not be readily mobile in the subsurface. In addition, the tank was grouted in 1986, further reducing waste mobility.</p>
46.	<p>Page xi</p> <p>CERCLA represents Comprehensive Environmental Response, Compensation, and Liability Act, not Comprehensive Environmental Release as stated.</p>	<p>Accept. Change Release to Response on page xi.</p>
47.	<p>Section 8.2.2.4, page 8-19, line 35</p> <p>To state that samples will be analyzed using Test Methods for Evaluating Solid Waste is inappropriate at this time. Negotiations will occur during work plan development to determine the appropriate method of analysis.</p>	<p>Reject. This section reflects text used for all the Westinghouse AAMSRs prepared to date and in order to maintain consistency the text will not be changed.</p>
48.	<p>Section 8.3.1, page 8-22, line 15</p> <p>The statement which infers that more data needs to be collected because of the size of this operable unit is questionable. This is one of the smaller operable units and the size of it should not be a determining factor.</p>	<p>Accept. Remove the phrase "the size of the aggregate area," and the subsequent "," to now read. Because of the complexity of past operations and the number of unplanned releases and waste management units, . . .</p>

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**ENVIRONMENTAL ENGINEERING AND GEOTECHNOLOGY
COMMENT RECORD FORM (cont.)**

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14. Item	15. Comment(s) (Provide technical justification for the comment and proposed action to correct or resolve the comment.)	16. Disposition (Provide brief justification if NOT accepted.)
49.	<p>Section 8.3.1, page 8-23, line 12</p> <p>EII 4.3 is now approved for handling of waste and should be noted here.</p>	<p>Accept. Page 8-22, Line 15. The reference on page 8-23, lines 12 and 40 should be replaced with: EII 4.3, "Control of CERCLA and Other Past-Practice Investigation Derived Waste" (WHC 1988d). This replacement also needs to be done in the Reference Section, page 10-10.</p>
50.	<p>Table 8-6, page 8T-6a</p> <p>Rationale for not taking subsurface sampling for various cribs must be clarified.</p>	<p>Reject. Additional information on analogous sites/units is provided in various sections of the AAMS including 9.1.2, 9.2.2, and 9.2.3."</p>
51.	<p>Table 8-5, pages 8T-5</p> <p>The data gap "characterization of the subsurface below and in the vicinity" should be added to the following waste management units: plants, buildings, and storage areas; ponds, ditches, and trenches; septic tanks and associated drain fields; transfer facilities, diversion boxes, and pipelines; and unplanned releases.</p>	<p>Reject. That is already mentioned in Section 8.2.3 of the text.</p>
52.	<p>Section 9.1, pages 9-4, line 2</p> <p>New waste management units identified should have an expedited determination of regulatory status and be included in the AAMS process.</p>	<p>Reject. As per the existing schedule, determining the regulatory status of new waste management units cannot be completed in time to be included in the Semi-Works AAMSR.</p>
53.	<p>Section 9.1.2, pages 9-8, line 16</p> <p>The method to perform the cost/benefit analysis of interim remedial measures (i.e., qualitative or quantitative) should be specified.</p>	<p>Reject. Presentation is consistent with other approved AAMS reports.</p>

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COMMENT RECORD FORM (cont.)**

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14. Item	15. Comment(s) (Provide technical justification for the comment and proposed action to correct or resolve the comment.)	16. Disposition (Provide brief justification if NOT accepted.)
54.	<p>Section 9.2.1, pages 9-9, lines 25-35</p> <p>The AAMS process identifies waste management unit information to determine the most appropriate remedial path. However, minimal discussion is included in the text explaining the site-specific data in relation to the evaluation criteria. The decision matrix in Table 9-2 is a clear summary of the decision process, but the text should include some discussion on the criteria that eliminated an evaluation path. For example, a short discussion explaining the reason that contaminants released to the cribs are unlikely to migrate and cause human exposure would provide justification for eliminating the expedited response action path.</p>	<p>Reject. The recommended changes would conflict with the approach taken in the overall AAMS process.</p>

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S. H. Wisness, RL (D. B. Erb, WHC)	P. T. Day, EPA D. B. Jansen, Ecology	Incoming: 9207462 Xref 9257722D

Subject: RESPONSE TO THE STATE OF WASHINGTON DEPARTMENT OF ECOLOGY'S (ECOLOGY) REVIEW OF THE SEMIWORKS SOURCE AGGREGATE AREA MANAGEMENT STUDY REPORT (AAMSR) DRAFT A

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