

RESPONSES TO EM-453 COMMENTS
DRAFT FINAL PHASE I ENVIRONMENTAL EVALUATION WORK PLAN
FOR OPERABLE UNIT NO. 10

CRITICAL COMMENTS

1. N The DQO process remains inadequate and non-quantitative. In fact, it appears that the authors do not believe a quantitative DQO process is necessary, although justification is not provided.
2. A Pages 2-31 through 2-131 and 2-161 were not included in the copy of the WP provided to HAZWRAP. A responsiveness review of the comments regarding these sections could not be performed.

GENERAL COMMENTS

1. NA No change required.
2. NA No change required.
3. P Changes were made to incorporate this comment including development of a site conceptual model, risk assessment conceptual model, and remedial alternatives. However, these models are very general and do not provide site specific information. It should be noted that the site conceptual model did not include receptors or exposure routes and DQOs are not developed for site specific evaluation.
4. P Changes were made to incorporate this comment, however the conceptual modeling effort is still considered to be too general and lacking in the identification of receptor and exposure routes.
5. P Although minor changes were made to the WP, the DQO process is not presented in adequate detail. A quantitative DQO process is not defined, therefore, the basis for quantitative decision making is not provided.
6. P Minor changes were made for this comment. The sentence "... insufficient data may be generated to fully evaluate contamination in media other than soils ..." was added to respond to this comment.
7. N Actually speaking, Section 8 was not developed closely related to the FSP. It is more like a general risk assessment description than a specific OU10 baseline risk assessment plan. In addition, the DQO description is not complete.
8. P Changes were made to incorporate this comment, however there is still no assurance that data will meet the needs of quantitative decision making.

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ADMIN RECORD

A-OU10-000014

9. P Changes were made to incorporate this comment, however, data needs to evaluate the remedial alternative options are not identified.
10. N Changes were not made to incorporate this comment.
11. N No changes were made to the WP.
12. N No changes were made to the WP.
13. N No changes were made to the WP.
14. N No changes were made to the WP.
15. N No changes were made to the WP.
16. P This comment has been addressed by dropping the use of reference areas (see Section 9.2.2, pg. 9-68, para. 2 and Section 9.3.3, pg. 9-86, para. 4). The justification for this revised approach is the inappropriateness of comparing undisturbed habitats with the disturbed habitats characteristic of OU 10 (due to the depauperate nature of the biota in the disturbed habitats irregardless of any impacts from hazardous contaminants) and the impracticality of making such comparisons due to the (assumed) large variability in biotic parameters in the disturbed habitats. This revised approach to reference areas evolved from the comment resolution meeting on November 12th involving HAZWRAP, DOE, EG&G and EBASCO. The EE process is not meant to be applied to industrial or urban environments that harbor little or no natural habitat and associated wildlife. The U.S. Environmental Protection Agency (EPA) states in the Risk Assessment Guidance for Superfund, Volume II, Environmental Evaluation Manual (Chapter 1) that "... Environmental evaluation at Superfund sites should provide decision-makers with information on threats to the natural environment associated with contaminants or with actions designed to remedy the site ...". This guidance manual goes on to say "... Not all sites will require environmental evaluations. Indeed, many are in industrial areas with little or no wildlife ...". The result of the scoping inadequacies is the possible inclusion of methodologies and procedures that are quite inappropriate to OU10, and may be impossible to implement successfully.

Since we have not seen the OU 10 area, we are not in a position to render a judgement on how disturbed the OU 10 habitats are, but if the habitats are highly disturbed, the rationale for not considering reference area comparisons is supportable. However, some quantitative information supporting this position would be very useful.
17. Y This comment was reflected in the WP.

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SPECIFIC COMMENTS

1. N No changes were made to the WP.
2. N No changes were made to the WP.
3. Y This comment was reflected in the WP revisions.
4. Y This comment was reflected in the WP revisions.
5. P The revised WP references the site-wide QAPJP but does not address the information expected to be provided in the QAA which should be an OU specific document.
6. N No changes were made to the WP.
7. N Changes made to the WP are not consistent with the comment.
8. P The WP text was modified in response to a portion of the comment. However, identification of restrictions and uncertainties and the qualitative and quantitative evaluation were not provided.
9. P The WP text was modified in response to a portion of the comment. However, the DOE facility to which the waste will be transferred for disposal is not identified.
10. Y This comment was reflected in the WP revisions.
11. Y This comment was reflected in the WP revisions.
12. Y This comment was reflected in the WP revisions.
13. Y This comment was reflected in the WP revisions.
14. Y This comment was reflected in the WP revisions.
15. N No changes were made to the WP.
16. Y This comment was reflected in the WP revisions.
17. P Changes were made to address the second part of the three part comment. The first and third parts of the comment were not reflected in the WP.

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18. P Changes were made to address a portion of the first part and the fourth part of this four part comment. The remaining comments were not reflected in the WP.
19. Y This comment was reflected in the WP revisions.
20. N Changes made to the WP text did not incorporate the concern expressed in the comment.
21. Y This comment was reflected in the WP revisions.
22. Y This comment was reflected in the WP revisions.
23. P Changes were made to incorporate the first and third part of the three part comment. The "West to East Cross-Section" of the geology was not provided as suggested in the second part of the comment.
24. Y This comment was reflected in the WP revisions.
25. P Changes were made to incorporate the third part of this three part comment. The first two parts were not reflected in the WP.
26. N Although changes were made to the WP, they did not reflect the changes requested in the comment.
27. The section of the WP discussed in the comment was omitted from the copy reviewed, therefore incorporation of the comment could not be verified.
28. N No changes were made to the WP.
29. Y This comment was reflected in the WP revisions.
30. N No changes were made to the WP.
31. The section of the WP discussed in the comment was omitted from the copy reviewed, therefore incorporation of the comment could not be verified.
32. The section of the WP discussed in the comment was omitted from the copy reviewed, therefore incorporation of the comment could not be verified.
33. P Changes were made to incorporate the fourth part of the five part comment. The remaining comments were not reflected in the WP.

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34. The section of the WP discussed in the comment was omitted from the copy reviewed, therefore incorporation of the comment could not be verified. See Preliminary Note 4.
35. Y This comment was reflected in the WP revisions.
36. Y This comment was reflected in the WP revisions.
37. N No changes were made to the WP.
38. Y This comment was reflected in the WP revisions.
39. Y This comment was reflected in the WP revisions.
40. NA No change required.
41. NA No change required.
42. Y This comment was reflected in the WP revisions.
43. N No changes were made to the WP.
44. N No changes were made to the WP.
45. Y This comment was reflected in the WP revisions.
46. N Although changes were made to the WP, the DQO development remains non-quantitative and inadequate.
47. P Although changes were made to the WP, the objective of the Phase II activities does not include data collection and needs related to the development and evaluation of remedial alternatives and the risk assessment associated with each alternative.
48. P Although changes were made to the WP, the development of DQOs remains inadequate.
49. P Although a generic conceptual model is now included in the WP as suggested, it does not include the exposure pathways and receptors.
50. N Although changes were made to the WP, the criteria for evaluating the usability of existing data is not provided.
51. N No changes were made to the WP.

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52. N Although changes were made to the WP, the DQO and data needs remain inadequately addressed.
53. Y This comment was reflected in the WP revisions.
54. Y This comment was reflected in the WP revisions.
55. N Although changes were made to the WP, the variance associated with field data collection is not adequately addressed.
56. N Although changes were made to the WP, the reference to the QAPjP is not appropriate since the QAPjP references the QAA for the specific objectives associated with each PARCC parameter. This information is not provided.
57. P Although changes were made to the WP, the relationship of the QAA to the SAP remains unclear.
58. N Although the WP text addressed in the comment was removed, the Type I and Type II errors are not considered and background level determination should be revisited with regard to OU10.
59. N No changes were made to the WP.
60. N Although changes were made to the text, the source of data to address the Phase I objectives and the level of uncertainty are not addressed.
61. Y This comment was reflected in the WP revisions.
62. Y This comment was reflected in the WP revisions.
63. P Although most of the issues addressed in the comment were addressed, the statement of "general compliance with RCRA and CERCLA" was not deleted.
64. N Changes made to the WP do not reflect the comment.
65. Y This comment was reflected in the WP revisions.
66. P Although changes were made to the WP, all media proposed for sampling are not identified.
67. Y This comment was reflected in the WP revisions.

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68. N Although changes were made to the WP, the variability of parameters is not adequately addressed.
69. P Although changes were made to address the first, eighth, and ninth parts of this twelve part comment, the remaining parts were not addressed.
70. N No changes were made to the WP.
71. N No changes were made to the WP.
72. N No changes were made to the WP.
73. N No changes were made to the WP.
74. N No changes were made to the WP.
75. N No changes were made to the WP.
76. P Minor changes were made to the WP. The sentence "... insufficient data may be generated to fully evaluate contamination in media other than soils ..." was added to respond to this comment.
77. N The investigators admit that the baseline risk assessment may not be conducted based on Phase I RFI/RI results, however, those risk assessment objectives were still listed in the revision.
78. N No changes were made to the WP resulting from this comment. However, in other sections, the need to consider future land use was mentioned.
79. N No changes were made to the WP.
80. Y The reference was deleted from Table 8-1.
81. N The IHSS-specific COCs were not provided.
82. N No changes were made to the WP.
83. P Generally, "future uses" have been considered in this revision. However, no changes were made for the other two parts of this three-part comment.
84. N No changes were made to the WP.

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85. N Changes made to the WP did not reflect this comment.
86. N Changes made to the WP did not reflect this comment.
87. N No detailed discussion of uncertainty was provided. The discussion was general and vague.
88. N No explanations were provided for this comment.
89. N No changes were made to the WP.
90. N No changes were made to the WP.
91. N No changes were made to the WP.
92. N No changes were made to the WP.
93. N No changes were made to the WP.
94. Y This comment was reflected in the WP revision.
95. Y Generally speaking, the investigators have made the text consistent with and representative of the information included in Figure 8.5-1.
96. Y This comment was reflected in the WP revision.
97. Y This comment was reflected in the WP revision.
98. N No changes were made to the WP.
99. N Though the investigators admit the importance of uncertainty, very few improvements have been included to address this issue.
100. N No changes were made to the WP.
101. Y This comment was reflected in the WP revision.
102. N No changes were made to the WP.
103. Y This comment was reflected in the WP revision.
104. Y This comment was reflected in the WP revision.

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105. N Changes made to the WP did not reflect this comment.
106. P Section 9.1.2, Results of Scoping, partially addresses this concern by indicating when some of these abiotic data may be available for use in the EE. However, the basic question of the responsiveness of the abiotic sampling program to the needs of the EE remain in question, and it appears that the needs of the EE are not being considered in the design and scheduling of the abiotic sampling effort. The relationship between the EE tasks and the availability of abiotic data should be thoroughly discussed in Section 9.1.1, Approach, and the subsections contained therein.
107. N No changes were made to the WP.
108. N Changes made to the WP did not reflect this comment.
109. N DQOs of OU10 may have been determined in Task 130 as mentioned (but not provided in this revision), however, the DQO process description is too general in the revision. Further, as referred to in the FSP (Section 9.3), statements for the particular sampling methodologies were just addressed by stating "there are no quantitative DQOs for the ... endpoints". This is not adequate.
110. N No changes were made to the WP.
111. NA This comment is no longer applicable to the revision.
112. Y This comment was addressed by dropping the use of reference areas. The statement is made that "Specific reference sites for ... will not be selected for the OU10 EE. This is because of the highly disturbed and developed nature of the component IHSSs and the resulting many reasons for ecological variation among sites". We generally agree with this approach. See General Comment # 16.
113. Y This comment was reflected in the WP revision.
114. P The section of the WP referenced in the comment was deleted. The comment is partially addressed in Section 9.3.
115. P The section of the WP referenced in the comment was deleted. The comment is partially addressed in Section 9.3. However, design protocols were not provided.
116. Y This comment was reflected in the WP.
117. N No changes were made to the WP.

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- 118. N It is unclear whether the "completed" activities of Task 2 addressed the concerns expressed in the comment or provided the information requested. The completed activities are not discussed.
- 119. N The section of the WP referenced in the comment was deleted. Based on the activities remaining, it appears that the literature review was not completed during the scoping. It is unclear whether the role of the conceptual model in organization and synthesis of historical data and identification of data gaps was considered during the Task 3 characterization.
- 120. Y The statement referenced in the comment was removed.
- 121. P The use of ecological data in impact or risk assessment was not addressed.
- 122. Y This comment was reflected in the WP.
- 123. Y This comment was reflected in the WP.
- 124. N No changes were made to the WP.
- 125. Y This comment was reflected in the WP.
- 126. Y This comment was reflected in the WP.
- 127. Y This comment was reflected in the WP.
- 128. N No changes were made to the WP.
- 129. P There was no discussion about the use of the ecological data collected in Task 3 in this assessment.
- 130. N Changes made to the WP did not reflect this comment.
- 131. N No changes were made to the WP.
- 132. N No changes were made to the WP.
- 133. N No changes were made to the WP.

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134. N No changes were made to the WP.
135. N Changes made to the WP did not reflect this comment.
136. N Changes made to the WP did not reflect this comment.
137. N Changes made to the WP did not reflect this comment.
138. N Changes made to the WP did not reflect this comment.
139. N Changes made to the WP did not reflect this comment.
140. N Changes made to the WP did not reflect this comment.
141. N No changes were made to the WP.
142. N Changes made to the WP did not reflect this comment.
143. Y This comment was reflected in the WP.
144. P The description of the use of information on the nature and extent of contamination of abiotic media or the selection of sampling stations was not clear.
145. N Changes made to the WP did not reflect this comment.
146. N No changes were made to the WP.
147. N Changes made to the WP did not reflect this comment.
148. N Changes made to the WP did not reflect this comment.
149. N Changes made to the WP did not reflect this comment.
150. N No changes were made to the WP.
151. N Although the section of the WP referenced in the comment was deleted, the use of aquatic data to characterize impact is not discussed.
152. N Changes made to the WP did not reflect this comment.
153. Y This comment was reflected in the WP.

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