

NOD COMMENTS FOR THE GROUT TREATMENT FACILITY

- No. Comment
1. Comment: "Co-operator" is not an acceptable designation. As identified in the Draft Final Permit for the treatment, storage, and disposal of dangerous waste at the Hanford Facility, the U.S. Department of Energy, Westinghouse Hanford Company, and Pacific Northwest Laboratory are each "Operators" on the Hanford facility and are identified separately as "Operators" or "Permittees." Reference to any of the permittees as "Co-Operator" will be addressed in the Facility Wide Permit. No further response is necessary.
6. Comment: Placement of signs over pipes within the boundaries of the grout treatment facility is to be addressed as part of the final Hanford Facility Permit for treatment, storage and disposal of dangerous waste. No further response is necessary.
9. Comment: Pertaining to the sentence "Based on comparisons between the various methods employed, the solidification verification requirements may be changed." (p 3-12, ln 46-47), it is appropriate that Ecology be involved with that type of decision.
- Requirement: Change the sentence to read: "Based on comparisons between the various methods employed, the solidification verification requirements may be changed with Ecology's concurrence."
13. Comment: Text was not included stating river flow rates. However, the response given is adequate for the purposes. No further response is necessary.
14. Comment: Modified text as described is found at p 2-12, ln 20-22 instead of ln 24-26. No further response is necessary.
17. Issue 1: Information which was described as being in Table 3-13 is in fact found in Table 3-14. No further response is necessary
- Issue 2: The discussion of laboratory blending operations was found at APP 3I instead of APP 3J. No further response is necessary.
- Issue 3: At this time there is no space identified or available on the Grout Campaign Waste Composition Verification form on which to place any listed organics (from WAC 173-303-9904) discovered during the analysis of waste.
- Requirement: Redesign the checksheet "Grout Campaign Waste Composition Verification" (APP 3J) to provide spaces to enable personnel to specify organic constituents from a listed source and its/their measured or known range when present in the tested waste.
20. Comment: Discussion and information transfer of the quantities and significance of gas generation is continuing. When available, evaluation of appropriate portions of the FSAR and any supporting documents will certainly be required prior to finalizing the course of action pertaining to radiolytic gas generation. Concurrence with this comment will be made pending FSAR review.

22. Comment: The reference given in Ecology's comment and the correct maximum waste quantities are found at p 3-10, ln 37-47 instead of p 3-11, ln 1-2. No further response is necessary.

30. Comment: The line (p 3-20, ln 47) as listed from the text of the NOD Response Table is not complete; it does not include "per 100 ft" as follows:

$$350 \text{ lbf/in}^2 \times 100 \text{ ft}/2,500 \text{ ft} = 14.0 \text{ lbf/in}^2 \text{ per } 100 \text{ ft.}$$

Requirement: Correct the line (p 3-20, ln 47) to read:

$$350 \text{ lbf/in}^2 \times 100 \text{ ft}/2,500 \text{ ft} = 14.0 \text{ lbf/in}^2 \text{ per } 100 \text{ ft. (0.97 bars)} \quad (2)$$

33. Comment: The free liquid criterion was not found in the text of Chapter 3. In WHC's last response, it was stated that there would be no modification in the text from their original submission.

Requirement: Replace the text describing the free liquid criterion or define the justification for leaving it out.

37. Comment: The statement was made in DOE-RL/WHC Response No. 1 that "final waste feed sampling always is conducted after the tank has been mixed using the in-tank mixer. . . ." The permit application in two places (p 3-28, ln 51-52 and p 3-29, ln 41) states that if sludge is present in the feed tank the waste is mixed prior to sampling. No text is present in this area describing mixing under all circumstances prior to sampling.

Requirement: Insert language into the permit application similar to that which is in the NOD response describing mixing in the final waste feed tank prior to sampling.

39. Comment: The full response to the original question of transporter and receiver responsibilities of waste transferred on Hanford is included within p 2-19, ln 41 to p 2-20, ln 29. No further response is necessary.

44. Comment: A description of cover blocks is found in Section 4.3.3 instead of Section 4.2.2 as indicated. No further response is necessary.

48. Comment: The text is found where indicated; that Ecology is to be notified is found on the previous page (p 4-15, ln 40-41). No further response is necessary.

49. Comment: The text is found where indicated; that Ecology is to be notified is found on the previous page (p 4-15, ln 40-41). No further response is necessary.

50. Comment: The text is found where indicated; that Ecology is to be notified is found on the previous page (p 4-15, ln 40-41). No further response is necessary.

51. Comment: Ecology is withdrawing it's concurrence with the response to this NOD comment until APP 7A is provided and Ecology has had an opportunity to evaluate that section.

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Requirement: Submit APP 7A to Ecology for review.

57. Comment: Ecology is withdrawing it's concurrence with the response to this NOD comment until APP 7A is provided and Ecology has had an opportunity to evaluate that section.

Requirement: Submit APP 7A to Ecology for review.

66. Comment: The report of waste/liner compatibility test data is in APP 4K, not 4I. No further response is necessary.

70. Comment: Based on USDOE's decision to install HDPE drainage curtains on the outside of the vault, Ecology will not require the installation of vadose zone monitoring capabilities. No further response is necessary.

74. Comment: Information on the "slug" test at well E-25-32 is found at p 5-16, ln 42-49 instead of p 5-17, ln 4-14. No further response is necessary.

76. Comment: Information on the subject of groundwater flow based on reallocation of wastewater discharges into local ponds is found as described in p 5-9, ln 32-39 and p 5-18, ln 43-51. Additionally, the subject is continued through p 5-19, ln 1-16. No further response is necessary.

97. Comment: Legible reproductions of Hazardous Waste Labels are found at p F6-2 instead of at p F6-1. No further response is necessary.

99. Comment: Ecology is withdrawing it's concurrence with the response to this NOD comment until APP 7A is provided and Ecology has had an opportunity to evaluate that section.

Requirement: Submit APP 7A to Ecology for review.

105. Comment: Ecology is withdrawing it's concurrence with the response to this NOD comment until APP 7A is provided and Ecology has had an opportunity to evaluate that section.

Requirement: Submit APP 7A to Ecology for review.

107. Comment: This information is found at p T8-5, not p T8-7.1. No further response is necessary.

110. Comment: No use of "federal" was seen at p 9-2, ln 16, nor was "Federal" used incorrectly anywhere on p 9-2. No further response is necessary.

116. Comment: The appropriate change is found at p 9-7, ln 47 instead of ln 46. No further response is necessary.

128. Comment: Table 11-1 still has two blanks for analysis of pH at Concrete and Equipment/structures.
- Requirement: The blanks in Table 11-1 for analysis of pH at "Concrete" and "Equipment/structures" should be filled with an appropriate indicator such as "N/A".
134. Comment: Subject text extends beyond that annotated in the NOD Response Table. The entire text discussing deviations from the regulations is found on p 1-7, ln 30-52. No further response is necessary.
141. Comment: The reference given in the NOD Response Table says to look in Section 11. The information is provided in Section 11.3. No further response is necessary.
150. Comment: The appropriate pages are pp APP 5B3-9 and APP 5B3-11 instead of p 5B3-10 and 5B3-14. No further response is necessary.
151. Comment: Appropriate figures are found on listed pages. In addition, the text is on p APP 5B3-7. No further response is necessary.
152. Comment: The figure which has been corrected is now F5B3-2 and it is on p APP 5B3-6. No further response is necessary.
153. Comment: The discussion of partial penetration effects is found on p APP 5B3-iii, ln 31-48 instead of p 5B3-2 through 5B3-9. No further response is necessary.
155. Comment: The statement within quotes is not found in the text. Turbidity is briefly discussed for two wells in APP 5: p 5C1-9, ln 33-36 and p 5C1-10, ln 17-20. This discussion meets Ecology's concerns; no further response is necessary.
157. Comment: The text only incorporates 3 pages inclusive in APP 5C (p 5C2-1 through 5C2-3) instead of p 5C2-1 through 5C2-21 as listed in the NOD Response Table. Attachments 5C2-1 and 5C2-2 are also applicable. No further response is necessary.
159. Comment: The section has been modified again, the data in question is now found at Attachment 5C2-2, p ATT 5C2-2-4 and p ATT 5C2-2-5 instead of APP 5C2, p 5C2-14 and p 5C2-15. No further response is necessary.
173. Comment: The subject table is now p T8-5 instead of p T8-4 and p T8-7.1. No further response is necessary.

Ecology Comments in the March 16, 1990 NOD

178. Comment: Inclusion of the Washington Administrative Code as a regulatory source is found at p iii, ln 19 instead of p iii, ln 16. No further response is necessary.
180. Comment: The text change is found at p 2-1, ln 50 instead of p 2-2, ln 11. No further response is necessary.

181. Comment: This text change is found at p 2-1, ln 52 to p 2-2, ln 1 instead of p 2-2, ln 15-16. No further response is necessary.
183. Comment: The text in question has been rewritten to adequately address our concerns. No further response is necessary.
186. Comment: The text change was found at p 2-15, ln 31 and 34 instead of p 2-15, ln 27. No further response is necessary.
190. Comment: The entire text discussing deviations from the regulations is found on p 1-7, ln 30-52 instead of p 1-7, ln 28-37. No further response is necessary.
223. Comment: The first piezometer in the NOD Response Table should have been listed as 299-E25-29A and B instead of 299-E25-30A and B (which was repeated as the second one). The indicated text has listed the piezometers correctly; however, subject text continues to p 5-18, ln 36. No further response is necessary.
229. Comment: Ecology is withdrawing concurrence with this NOD response until Ecology has had the opportunity to review the revised Appendix 7A.
- Requirement: Submit APP 7A to Ecology for review.
240. Comment: "Appropriate receiver tanks" were identified in the first sentence of the last paragraph of APP 7B, page 1. However, APP 7B Sections 5.2 and 5.3 once again had reference only to "appropriate receiver tanks."
- Requirement: Identify "appropriate receiver tanks" discussed in APP 7B, Sections 5.2 and 5.3 (p APP 7B-9) in terms similar to those in the last paragraph of APP 7B, page 1.
251. Comment: The one condition listed in the last sentence of APP 7B, page 1, (to prevent a release to the environment) is the only condition allowable to pump liquid back to the vault.
- Requirement: In the second line of the last paragraph of APP 7B, page 1, change "can" to "will only".

Ecology Comments in the June 19, 1990 NOD

261. Comment: Table 3-11, rather than Table 3-10, is the table which estimates the proportions of waste amenable to grouting. No further response is necessary.
269. Comment: Discussion of flow rate is essentially limited to Chapter 3 and is found in Section 3.2.1.2.2. There is no Section 3.4.2 and flow rate is not mentioned in Section 4.2.3. Also, Appendix 3J is a blank form as an example of the information which will be transmitted as the "Waste Composition Verification." There is no explanatory text associated with Appendix 3J although there are blanks on the Waste Composition Verification form on which to delineate grout component determinations. No further response is necessary.

275. Comment: Time frame estimates for filling vaults and curing grout are found as described at p F11-17 through p F11-19. However, in all figures filling of the second vault of the pair was given as the minimal time for filling; there was no allowance for pouring in lifts or any other delay to permit the heat of hydration to dissipate.

Requirement: Determine the best-case and worst-case time frame effects which could result from the need to pace the pouring of grout to diminish or negate the effect of heat of hydration. Discuss these effects on the overall possibility of meeting established schedules to fill grout vaults. Identify any other impacts to the permit application as a result of needing to fill vaults in lifts.

277. Comment: In addition to the information at p 4-28, ln 1-15, the essence of the NOD comment is found dispersed throughout section 4.3.1 (ln 23, p 4-12 to ln 8, p 4-15). No further response is necessary.

279. Comment: Discussion of the Leachate Detection/Collection and Removal System is found in Section 4.5.3.1.2, p 4-41 rather than Section 4.4.3.4. No further response is necessary.

282. Comment: In addition to the listed figure (p F4-4), Section 4.7.2 (p 4-52 through p 4-56) contains the information on vault ventilation and radionuclide monitoring rather than text at p 4-46, ln 51-52; and p 4-47, ln 1-5. No further response is necessary.

286. Comment: The reference to p 9-3, ln 14-22 is correct; however, that is part of section 9.1.4, Waste Analysis Information instead of Section 3.9. No further response is necessary.

296. Comment: The location of the statement identified in this NOD response is p 11-14, ln 42 instead of p 11-15, ln 42. No further response is necessary.

304. Comment: The Response Action Plan is now Appendix 7B instead of Appendix 7A. The discussion as outlined in the NOD Response Table is in Appendix 7B. No further response is necessary.

308. Comment: APP 11A, p 7, states that water will be added during mixing to obtain moisture content of optimum to 4% above optimum. No mention is made in this section about the "kneading compaction . . .", nor in the section of 02200 which discusses emplacing the bentonite layer.

Requirement: Use of the sheep foot roller is required during compaction of the bentonite layer and should either be explicitly stated in the specifications or the location of the text specifying this requirement should be noted.

ADDITIONAL COMMENTS

327. Comment: The *Shoreline Management Act of 1971* from p 2-10, ln 36 is not referenced in Section 15.

Requirement: Include the *Shoreline Management Act of 1971* as a reference in Section 15 and relate it to the appropriate text in p 2-10.

328. Comment: The *Safe Drinking Water Act of 1974* from p 2-10, ln 45 is not referenced in Section 15.

Requirement: Include the *Safe Drinking Water Act of 1974* as a reference in Section 15 and relate it to the appropriate text in p 2-10.

329. Comment: In Table 3-14 (p T3-14.2, ln 15), the last property "toxicity," has no "use" block filled.

Requirement: Replace Table 3-14 with a corrected copy showing the use of the data acquired under the "toxicity" category.

330. Comment: In the Reference Section, p 15-6, the following references are both listed as EPA 1984: ln 11 to 13--*Technical Addition to Methods for Chemical Analysis of Water and Wastes* and ln 15 to 17--*Test Method for Determining Inorganic Anions in Water by Ion Chromatography Method 300.0*.

Requirement: In Section 15, separately identify *Technical Addition to Methods for Chemical Analysis of Water and Wastes* as "EPA, 1984a" and *Test Method for Determining Inorganic Anions in Water by Ion Chromatography Method 300.0* as "EPA, 1984b." Locate and correctly endorse appropriate text references.

331. Comment: Sections APP 7A and APP 10A have not been included in the revised pages provided to Ecology. Discussions or decisions based on the content of sections APP 7A and APP 10A cannot occur until Ecology has had sufficient time to evaluate the content of these sections.

Requirement: Provide Ecology with an estimate of the time at which Sections APP 7A and APP 10A of the Grout Permit Application will be made available. Provide Ecology with the revised Sections APP 7A and APP 10A. Provide Ecology with an analysis of which Sections of the Grout Permit Application are affected by the content of these sections.

