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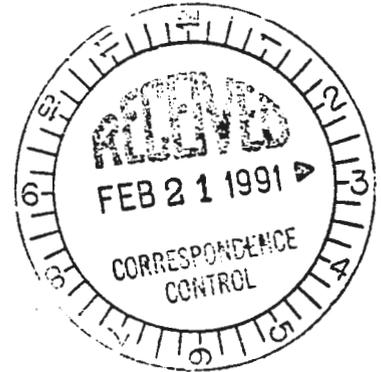


STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

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February 5, 1991

Mr. Steve H. Wisness  
Hanford Project Manager  
U.S. Department of Energy  
P.O. Box 550  
Richland, Washington 99352



Re: Notice of Deficiency (NOD) for the PUREX Storage Tunnels  
Dangerous Waste Permit Application

Dear Mr. Wisness:

This letter transmits Ecology's comments on the PUREX Storage Tunnels Dangerous Waste Part B Permit Application of September, 1990. The permit application was reviewed for compliance with final facility status standards in the state Dangerous Waste Regulations (Chapter 173-303 WAC).

I am requesting that USDOE/PNL respond to these comments with an NOD response table. This response should be submitted no later than May 6, 1991. Should you have questions or concerns regarding this notice, please contact Megan Lerchen at (206) 438-3089.

Sincerely,

Timothy L. Nord  
Hanford Project Manager

Enclosure

cc: Paul Day - EPA, Richland  
Dan Duncan - EPA, Seattle  
Tony Veneziano - ARI  
Toby Michelena - Ecology, Lacey  
Dave Nylander - Ecology, Kennewick



DEPARTMENT OF ECOLOGY NOTICE OF  
DEFICIENCY FOR THE PUREX STORAGE TUNNELS  
DANGEROUS WASTE PERMIT APPLICATION  
DATED SEPTEMBER 1990  
February 5, 1991

1. iii/14 Comment: The permit application states that storage of mixed waste is regulated under the *Resource Conservation and Recovery Act of 1976*. The handling and storage of mixed waste at the Hanford Reservation is also regulated by and will be permitted under the *Dangerous Waste Regulations*, Chapter 173-303 WAC.
- Requirement: Edit the text accordingly.
2. iii/37 Comment: Subpart X of 40 CFR 264 is referenced for a miscellaneous unit. The appropriate citation for the *Dangerous Waste Regulations* will be WAC 173-303-680, Miscellaneous Units.
- Requirement: Revise the text to refer to the Washington Administrative Code here and other instances as appropriate.
3. vii Comment: The section on Acronyms and Abbreviations is too brief. It should be expanded to also include Definitions of terms subject to ambiguity (e.g., site vs. unit).
- Requirement: Expand this section accordingly. Refer to the 616 Nonradioactive Dangerous Waste Storage Facility Part B Permit Application for guidance.
4. 1-1/35 Comment: The permit application states that there are 17 railcars stored in Tunnel Number 2 as of January 1, 1990. On page iii of the Foreword, the permit application is stated to contain information available as of August 31, 1990. It does not seem reasonable that the number of railcars in this tunnel would not be known on a more current basis.
- Requirement: State how many railcars are currently stored in the tunnels. Information regarding materials stored in these tunnels must be as current as possible. Revise the text as appropriate, here and elsewhere in the permit application.
5. 1-4/45 General Comment: The permit application mentions clean closure. Ecology is currently developing policy on closure standards for TSD units with mixed waste contamination. Guidance will be provided as soon as it is available.

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6. 1-5/43 Comment: The permit application discusses permit modifications. The new version of the *Dangerous Waste Regulations* uses a different classification system for permit modifications and is also considerably more extensive.
- Requirement: Revise this section of the permit application so that it will be in accordance with the version of the Chapter 173-303 WAC which will be in effect at the time of permit issuance.
7. 2-3/16 Typographical Error: "... and transite annex ...."
8. 4-8/35 Comment: The permit application states that if a hazardous material were released from its container, "... no significant impact to the environment would occur." This statement is unsubstantiated.
- Requirement: Provide documentation supporting this statement in the form of a Safety Analysis Report or other equivalent document with the next NOD response table or delete this statement from the application.
9. 4-9/31 Typographical Error: Milestone M-21-01 does not exist; the correct milestone is M-22-01.
10. 6-3/7 Typographical Error: "These are ..." should be "There are ...."
11. 6-3/36 Comment: The permit application mentions dangerous waste signs.
- Requirement: Describe these signs in detail.
12. 6-3/37 Typographical Error: "... are in tact, visible ...."
13. 6-3/42 Comment: The permit application states "... verification is conducted by observing an indicator light and a pressure differential gage located in the PUREX Plant operating records." This does not make sense; the instruments would not be located in the operating records.
- Requirement: Clarify what was meant by the above quoted statement. Revise the text as necessary.
14. 6-6/1 Comment: The permit application states that water will not be used for fire control at the PUREX storage tunnels.

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Requirement: Describe what fire control measures would be used in the event of a fire.

15. 6-6/43 Comment: Control of run-off is described, however, this description actually discusses the control of run-on. Both run-on and run-off must be discussed.

Requirement: Revise the text accordingly.

16. 6-7/42 Comment: Backup or redundant systems are not provided for the ventilation system in Tunnel 2.

Requirement: Provide information on the hazards due to failure of the ventilation system.

17. 6-8/9 Comment: A full face respirator is mentioned. It is not clear if this is a supplied air or air purifying respirator.

Requirement: Clarify what type of respirator is used.

18. 7-1/14 Comment: USDOE/RL states that parts of the contingency plan serve to fulfill requirements other than Ecology's. Ecology agrees that sections of documents not subject to regulation by Ecology should be excluded from the permit(s). Any part(s) of submitted documents not applicable to the permit application will not be adopted as part of the permit and therefore will not be subject to the modification requirements of WAC 173-303-830.

Requirement: Documents submitted for the permit which contain extraneous information should be accompanied by a cover letter indicating which chapter(s) or sections(s) are applicable to the permit application, or, conversely, should be excluded.

19. 11-1/38 Comment: The plan states that closure of the PUREX Tunnels will be performed in conjunction with the 200-PO-1 and 200-PO-2 operable units. Closure must be performed in compliance with WAC 173-303-610(4).

Requirement: Revise the closure plan accordingly.

20. 11-1/46 Comment: The closure plan states that closure will take place after removal of the stored equipment and that the removal will be performed in conjunction with, "the final disposition of equipment from the PUREX Plant. A common equipment disposal method will be established as part of the PUREX Facility closure." Removal of the equipment is part of the closure of the PUREX Tunnels.

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Requirement: Revise the text to accurately reflect the closure process. Note also that the PUREX Facility Part B Permit Application scheduled to be submitted in September 1992 must allow for removal of mixed waste from the tunnels to the canyon area and contain the proposed treatment discussed in this permit application's closure plan.

21. 11-2/42

Comment: The plan discusses clean closure requirements that are not equivalent to those of WAC 173-303-610(2).

Requirement: The clean closure requirements stipulated in WAC 173-303-610(2) must be met in order to clean close. See comment number 5.

22. 11-4/7

Comment: The plan states, "No partial closure is anticipated for the PUREX Storage Tunnels."

Requirement: Discuss this statement with regard to the conclusion of RHO-CD-1076 (September 1980, G.R. Silvan), which states on page 33, "If the contents of the tunnel must be removed, it should be deactivated as soon as possible to ensure the tunnel is still structurally sound during the removal operation."

23. 11-4/37

Comment: Minor modifications to the permit in accordance with WAC 173-303-830(4) to the permit are discussed. WAC 173-303-830 is being revised significantly in the next version of the *Dangerous Waste Regulations*.

Requirement: Revise the text to be in accordance with the version of the *Dangerous Waste Regulations* which will be in place at the time of permit issuance.

24. 11-5/37

Comment: The removal of stored inventory is discussed. No mention is made as to how it will be determined that no additional mixed waste exists in or on these failed equipment parts and railcars.

Requirement: Discuss how it will be established that the inventory not known to contain mixed waste does not contain mixed waste.

25. 11-6/26

Comment: The plan states that a radiation survey will be initiated well in advance of PUREX Storage Tunnels Closure.

Requirement: State when this investigation is scheduled to begin. Include details such as time frames for technology development.

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26. 11-11/33 Comment: The professional engineer certification is not consistent with other closure plans.

Requirement: Revise the certification statement so that it is consistent with other closure plans. Refer to the 183-H Solar Evaporation Basins Closure Plan for guidance.

27. 11-12/33 Comment: The closure plan states that because this is a federal facility, the closure cost estimate is not required.

Requirement: The application must state that closure cost estimates will be provided by October 1, 1991, and will be updated annually thereafter. These estimates are being required under the facility reporting requirements of WAC 173-303-390. At this time, Ecology is not requiring that these estimates be provided as part of the financial requirements under WAC 173-303-620. However, these estimates must be provided in the same level of detail that is required for the purpose of the financial requirements.

28. 12-1 Comment: The Dangerous Waste Regulations are in the process of being revised.

Requirement: Ensure that the reporting and record-keeping requirements of the new revision will be met.

29. 12-4/32 Comment: Ecology is in the process of developing consistent spill reporting requirements. These requirements will be formally provided to USDOE/RL as soon as possible. In any case, reports should be made to Ecology's Kennewick office, (509) 546-2977.

Requirement: Revise the contingency plan accordingly.

NOTE: Appendix 7A, the WHC Emergency Plan for PUREX Facility, WHC-IP-0263-202A, was reviewed with regard to the PUREX Storage Tunnels. Items with a bearing on the PUREX Tunnels were commented on only (numbers 30 - 36).

30. 7A-1 Comment: The emergency plan mentions DOE-RL Procedures Manuals.

Requirement: Describe these manuals further.

31. 7A-3 Comment: Figure 1.b of the 200 East Area is illegible.

Requirement: Provide a legible copy.

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32. 7A-14      Comment: Document number WHC-IP-0603 is referenced on the Building Emergency Review Checklist.
- Requirement: Describe this document and provide a copy under with the next NOD Response Table.
33. 7A-16      Comment: The HMRT is referred to by acronym only.
- Requirement: Acronyms should be avoided in this type of document and at the minimum should be spelled out in the first usage.
34. 7A-31      Comment: DOE-RL Order 5484.1 is referenced.
- Requirement: Provide a copy of this order.
35. 7A-34      Comment: The emergency equipment list is incomplete and does not give the locations of the emergency equipment. (The referenced map is illegible.)
- Requirement: Provide a comprehensive inventory with specific amounts and locations of equipment as required by WAC 173-303-350.
36. 7A-103     General Comment: The MSDS states an Ecology reportable quantity. Ecology is currently developing a spill reporting policy. This will be provided to USDOE as soon as it is available.
37. 11A-11     Comment: It is assumed that the closure activities for the PUREX Tunnels will occur in conjunction with the closure activities for the PUREX Plant. This may be appropriate for Tunnel 2, but Tunnel 1 was found to be of adequate but questionable integrity in 1980.
- Requirement: Evaluate the assumption that both tunnels will be closed in conjunction with the PUREX Plant. Demonstrate that postponing closure of Tunnel 1 will not result in a more difficult closure due to failure of the timbers. Refer to the second paragraph of page 11A-16.
38. 11A-42     Comment: The weighting factors employed in the evaluation of closure options do not accurately reflect the ordering cited in the text. For example, the text states, "Personnel protection was considered to be the most important item overall (ALARA evaluation and industrial health and safety) followed by compliance with the present regulatory framework." However, the weighting factors assigned were the same for ALARA evaluation

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and regulatory acceptability (4.0) and smallest overall for industrial health and safety (1.5). Furthermore, on page 11A-56 it states, "determination of a preferred alternative will be based on the regulatory acceptability ...."

Requirement: Correct these inconsistencies and the evaluation of closure alternatives to accurately reflect the stated criteria ordering.

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# DISTRIBUTION COVERSHEET

<b>Author</b> TL Nord/Dept. of Ecology	<b>Addressee</b> SH Wisness/DOE-RL	<b>Incoming Correspondence No.</b> 9100743
<b>Subject</b> Notice of Deficiency (NOD) for the PUREX Storage Tunnels Dangerous Waste Permit Application		

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