



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

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June 28, 1999

Mr. James E. Rasmussen  
U.S. Department of Energy  
Environmental Assurance, Permits, and Policy Division  
P.O. Box 550, MSIN: A5-15  
Richland, Washington 99352

Mr. William D. Adair, Director  
Fluor Daniel Hanford, Inc.  
2420 Stevens Center, MSIN: H6-21  
Richland, Washington 99352



Dear Messrs. Rasmussen and Adair:

Re: Notice of Deficiency Comments for the 219-S/Storage Part B Permit Application Chapter 7 and Building Emergency Plan for the 222-S Laboratory Complex.

The Washington State Department of Ecology (Ecology) has reviewed the 219-S/Storage Part B Permit Application Chapter 7, and Building Emergency Plan for the 222-S Laboratory Complex. The areas of deficiency are itemized on the attached table. Please provide a written response to Ecology's comments within two (2) months of receipt of this correspondence. After Ecology receives Department of Energy (DOE) responses, comment resolution meetings will be scheduled, as necessary.

I look forward to working with your staff on the completion of this permitting effort. If you have any questions or would like to schedule a meeting regarding this letter, please contact me at (509) 736-3003.

Sincerely,

Brenda L. Becker-Khaleel  
Nuclear Waste Program

BB:ld

cc: Joel Williams, WMH      Donna Powaukee, NPT      J. R. Wilkinson, CTUIR  
John Winterhalder, WHM      Russell Jim, YIN      Mary Lou Blazek, OOE  
Administrative Record: 222-S Laboratory

## Notice of Deficiency Comments

**March 5, 1999**

| <u>Comment #</u>  | <u>Comment</u>   | <u>Closed on</u> |
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| <b>Chapter 7</b>  |  |                  |
| 1.  | Expand Table 7-1 to include requirements from WAC 173-303-360 and applicable sections of WAC 173-303-340 and -640(7).  |                  |
| 2.  | Provide more specific section references to the Building Emergency Plan.   |                  |
| <b>Building Emergency Plan for the 222-S Laboratory Complex</b> |  |                  |
| 3.  | Ensure the Building Emergency Plan is signed by someone with the authority to commit the facility's resources.   |                  |
| 4.  | Suggest globally changing "hazardous material" to "hazardous substance" as defined in the Hanford Emergency Response Plan.   |                  |
| 5.  | Section 1.4 – add a brief description of the current facility mission/operations.  |                  |
| 6.  | Section 1.4, second paragraph – the RCRA units appear to be listed twice, once as RCRA units and a second time as TSDs.  |                  |
| 7.  | Section 1.5 – change "overview" to "layout."   |                  |
| 8.  | Section 3.0 – the acronym for BED should be provided in this section.  |                  |
| 9.  | Section 3.1 – provide a diagram showing the hierarchy of the ICP, include the BED, IC, HFD, POC, Personnel Accountability Aides, Staging Area Managers, RL-EOC, Emergency Duty Officer, HFD medical response, PHMC health advocate, ECO, FDH Environmental Protection single point-of-contact, recovery manager, etc. It is difficult to determine how all of these people interface in an emergency. How do these people communicate with each other? |                  |
| 10.   | Section 3.2 - provide a description or list of the training provided to facility emergency personnel.  |                  |
| 11.   | Section 3.2 – provide a specific location for the building emergency organization listing of positions. What is the distribution list?   |                  |
| 12.   | Section 4.0 – the Contingency Plan should be implemented any time an emergency occurs. This is its purpose. This should be clarified in Section 4.0.   |                  |
| 13.   | Section 4.0 – the WAC requirements also include an "unplanned sudden or nonsudden release," expand the implementation criteria.  |                  |

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| 14. | Section 4.0 - Attachment A is referenced multiple times throughout the document. Provide a copy of HNF-IP-XXXX, "222-S Laboratory Complex Emergency Response Guide" for information purposes.  |  |
| 15. | Section 4.0 – add dangerous waste constituent to first sentence after mixed waste, per WAC 173-303-040 "Contingency Plan."   |  |
| 16. | Section 4.0 – delete next to last sentence of first paragraph. "An incident requiring..." is unnecessary and solely a response to a past compliance letter.  |  |
| 17. | Section 5.1 – MSDS are kept in the Lab Leader's Office. Provide a room number.   |  |
| 18. | Section 5.3, second bullet – provide an acronym definition for DST, change "four" (4) to "three" (3) functional tanks and one (1) isolated tank.   |  |
| 19. | Section 5.3, third bullet – include a description of 2-B.  |  |
| 20. | Section 5.3 – add description/reference to list of active <90 day and SAA's in 222-S to last bullet.   |  |
| 21. | Section 6.0 – are the listings in Sections 6.1, 6.2, and 6.3 the types of things which could require implementation of the Contingency Plan? If that is the case, say so.  |  |
| 22. | Section 6.1.1.4 – does 222-S still use steam?  |  |
| 23. | Section 6.1.1.4 – ensure the degree symbol [325 EF (162.7 EC) at 40 psig maximum] prints correctly on the final permit application.  |  |
| 24. | General Comment on Section 7 – these procedures have common required actions, but are inconsistently formatted, suggest evaluating the procedure descriptions and refining them so that common steps between procedures are written the same and assigned to the same personnel (discoverer, BED, IC, etc.). |  |
| 25. | Section 7.1.1, third paragraph – states "The order to evacuate is normally passed via the Crash Alarm Telephone System." How is this information relayed to the BED?   |  |
| 26. | Section 7.1.1, bullets – who is responsible for conducting each of these activities?   |  |
| 27. | Section 7.1.1, fourth bullet – how are the personnel accountability results relayed to the RL- EOC?  |  |
| 28. | Section 7.1.2, first paragraph – "Personnel shall take cover in the nearest building and report their location to line management or the BED," how is this done? How do they know where line management or the BED is?   |  |

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| 29. | Section 7.2 – an alarm response procedure should be added. Many subsequent emergency scenarios refer to it.  |  |
| 30. | Section 7.2.1.1, last bullet – why do you contact the Operations Manager? When can the facility resume operations?   |  |
| 31. | Section 7.2.1.2 – are personnel evacuated from 222-S?  |  |
| 32. | Section 7.2.1.3 – several sections of the document reference the “alarm response procedure” there is no reference to this document in Attachment A. Provide a copy for information purposes.                 |  |
| 33. | Section 7.2.1.4 – are personnel evacuated from 222-S?  |  |
| 34. | Section 7.2.2 – change text to clarify tank 103 is not an active tank, it has been removed from service and only contains a heel.  |  |
| 35. | Section 7.2.4, fifth bullet – the Hanford Fire Department was notified in the first bullet. Are they considered the site emergency response organization?  |  |
| 36. | Section 7.2.5, second bullet – suggest combining the information provided in the second and fourth bullets and moving it to the second position.   |  |
| 37. | Section 7.2.5, third bullet – If you specify calcium gluconate cream for hydrofluoric acid burns, add it to the emergency equipment list.  |  |
| 38. | Section 7.2.5, third bullet – should be separated into several bullets for clarity.  |  |
| 39. | Section 7.2.5, third bullet – the discoverer has no reasonable means for ensuring the EDO contacts the health advocate, if they do, describe the process they should use, including necessary phone numbers. |  |
| 40. | Section 7.2.5, sixth bullet – why are the FDH Environmental Protection single point-of-contact, Environmental Compliance Officer, and the cognizant chemist notified for a spill, but not other events?      |  |
| 41. | Section 7.2.5, all bullets – suggest reevaluating the order of the bullets, some activities appear to be out of order.   |  |
| 42. | Section 7.2.5.1 – add a notification of the BED.   |  |
| 43. | Section 7.2.5.1 – bullets 3 and 5 are inconsistent. Bullet 3 states the HFD is the IC, and bullet 5 assumes a BED is involved, clarify these bullets.  |  |
| 44. | Section 7.2.5.2 – First bullet of BED actions should be separated into several bullets. Also, in 7.2.5 the discoverer performs these actions and in 7.2.5.2, the BED performs them. Is this intentional?     |  |

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| 45. | Section 7.2.5.2, fifth and tenth bullet – The HazMat Team may not have been called; ensure HazMat Team is called.  |  |
| 46. | Section 7.2.5.2, eighth bullet – Section 5.1 states the MSDS are in the Lab Leader's Office, ensure both lists are accurate and complete.  |  |
| 47. | Section 7.2.5.2, twelfth bullet – how does the BED determine current local meteorological conditions?  |  |
| 48. | Section 7.2.5.2, fourteenth bullet – suggest moving this bullet up in the order of events. These people may be of assistance to the BED in completing other tasks.   |  |
| 49. | Section 7.2.5.2 – the Section seems to be incomplete. The emergency response ends with "consider building evacuation." What happens next?  |  |
| 50. | Section 7.2.5.3, first bullet – wouldn't it be more appropriate for the BED and ECO to be notified for evaluation of the shipment, and then they should notify the HFD if appropriate?   |  |
| 51. | Section 7.2.6.2 – wouldn't a mixed waste effluent discharge be the same as a mixed waste spill? Suggest combining with section 7.2.5.  |  |
| 52. | Section 7.2.6.2 – define the acronym RC.   |  |
| 53. | Section 7.2.6.3 – insert "alarm" after CAM in third sentence.  |  |
| 54. | Section 7.3 – this Section is inadequate, address the regulatory requirements in WAC 173-303-360(2)(f) and (g).  |  |
| 55. | Section 7.4.1 – what about evacuation of personnel to the staging areas? Can the Personnel Accountability Aid and Staging Area Manager assist with some of the tasks assigned to the BED?  |  |
| 56. | Section 7.4.3 – this seems inadequate for a tornado. Suggest elaborating, on how personnel will be informed and where they will be sheltered. Also, will any special measures be taken to shut down waste handling operations (e.g., 219-S Waste Handling Facility)? |  |
| 57. | Section 8.0 – Revise 1 <sup>st</sup> sentence to say "DOE/RL-94-02, Section 8.0 contains procedures to be used for event termination, incident recovery, and facility restart."  |  |
| 58. | Section 8.2 – Suggest adding the requirements of WAC 173-303-350(5) (Amendments) be added to this section as an additional bullet.   |  |
| 59. | Section 8.2 – Who are the "appropriate personnel" to review a recovery plan?   |  |
| 60. | Section 8.2, third paragraph – Ensure the RL-EOC is notified for all conditions classified as a WAC 173-303-360 emergency.   |  |

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| 61.                     | Section 9.0 – add a sentence indicating the 222-S Facility specific emergency equipment is listed in Sections 9.1 and 9.2.  |  |
| 62.                     | Section 9.1, NOTE – Ecology will need to discuss the statement “The water flows to the floor, where it is picked up and disposed of, or via the building sump pumps to the tunnels where the water can be transferred to the 219-S or 207-SL.”  |  |
| 63.                     | Section 9.2 – include first aid kits as portable emergency equipment.   |  |
| 64.                     | Section 9.3 – remove tank 103 from the list of tanks unless the liquid-level overflow alarm is still connected.   |  |
| 65.                     | Section 9.4 – it seems that PPE should be conveniently located in adjacent areas for emergency response. Where is Respiratory Protection located?   |  |
| 66.                     | Section 9.6 – specify emergency response “supplies” stored in each emergency response center. How is it determined which emergency response center will be used?  |  |
| 67.                     | Section 12.0 – where is the Emergency Preparedness Coordinator Office? Is this the same as FDH Emergency Preparedness?  |  |
| 68.                     | Section 13.0 – identify the “separate, internally controlled document” containing the emergency organization listing.   |  |
| 69.                     | Figure 1 – symbols provided in key don’t seem to match the appropriate areas. Verify all areas, label TSD facilities, suggest enlarging map to 11x14 so it is legible.  |  |
| 70.                     | Figure 2 – is the ERC the same as the ICP? Suggest enlarging map to 11x14 so it is legible.   |  |
| 71.                     | Figure 4 – this figure should be enlarged to 11x14 so it is legible.  |  |
| <b>General Comments</b> |   |  |
| 72.                     | Provide a description of the minimum qualifications (training and experience) that will be required for people hired to fill positions designated with the duties of the emergency coordinator and alternates.  |  |
| 73.                     | Add description of the procedures and equipment for identifying the character, exact source, amount, and actual extent of any released material, when there has been a release. Include a generic sampling and analysis plan outlining the basic steps which will be taken to quantify the extent of contamination. |  |
| 74.                     | Provide more detail describing the criteria used to assess the possible hazards to human health and the environment that may result from an event. Also, describe the criteria used to assess the need for evacuation and notification of authorities.  |  |

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| 75. | Ensure regulatory requirements in WAC 173-303-360(2)(f)(g)(h)(k) and -350(5) are addressed.   |  |
| 76. | Post-Emergency Actions are inadequately addressed. Verify that regulatory requirements in WAC 173-303-360(2)(h), (i), (j), and (k) are addressed. |  |
| 77. | In the discussion of the evacuation plan, address when alternate routes will be used and the consideration of wind direction.                     |  |