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STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

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July 19, 1993

Mr. Steven H. Wisness  
Hanford Project Manager  
U.S. Department of Energy  
P.O. Box 550 MSIN: A5-15  
Richland, WA 99352-0550

Dear Mr. Wisness:

Re: Notice of Deficiency Response Table and Additional Notice of Deficiency  
Comments 4843 Alkali Metal Storage Facility (AMSF) (Milestone M-20-14,  
Group # S-4-1)

This letter transmits the Washington State Department of Ecology's comments on the 4843 Alkali Metal Storage Facility Closure Plan, Revision 0 (dated June 1991), Notice of Deficiency Response Table of February 1993. The Response Table was reviewed for compliance with final facility standards in the State Dangerous Waste Regulations (Chapter 173-303 WAC).

The Response Table was found to have the same primary areas of concern which are identified as follows:

1. The changes proposed to address the lack of detail in this plan will not adequately correct the deficiency.
2. Controls for the health and safety hazards associated with radioactive contaminants are still not adequately addressed. The cleanup of the radioactive constituents remains inappropriately deferred from the closure activities.
3. The waste characteristics provided in the plan do not provide sufficient detail to allow a waste characterization evaluation to be made.
4. Proposals relating to closure performance standards may be impacted by a regulation amendment that is currently being finalized by Ecology.

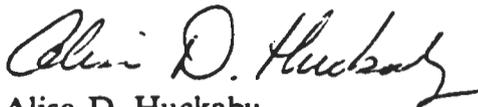


Steven. H. Wisness  
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Due to the change of unit managers reviewing this closure plan and the additional comments added to the attached response table, I am requesting that the Department of Energy/Westinghouse Hanford Company respond to the attached comments and responses with a Notice of Deficiency (NOD) Response Table no later than September 20, 1993.

If you or your staff have any questions or concerns regarding this notice, please contact me at (509) 736-3034.

Sincerely,



Alisa D. Huckaby  
Nuclear and Mixed Waste Management Program

AH:mf  
Enclosure

cc: (w/enclosure)  
Randy Kreckel, DOE  
Jason Adler, WHC  
Administrative Record

cc: (w/o enclosure)  
Cliff Clark, DOE  
Sue Price, WHC  
Fred Ruck, WHC  
Dan Duncan, EPA  
Doug Sherwood, EPA

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**4843 ALKALI METAL STORAGE FACILITY CLOSURE PLAN REVISION 0  
NOTICE OF DEFICIENCY RESPONSE TO RESPONSE TABLE AND ADDITIONAL COMMENTS  
JULY 20, 1993**

RESPONSE NUMBER	COMMENT
1.	The detail of this closure plan must be increased to allow sufficient assessment of the closure process. Should the deficiencies be addressed sufficiently, no further response is necessary.
2.	The second paragraph of the Hanford Federal Facility Agreement and Consent Order, Section 6.3 states, "[t]he TSD units containing mixed waste will normally be closed with consideration of all hazardous substances, which includes radioactive constituents." Consequently, the focus of this closure is not limited to exclusively addressing the dangerous waste constituents. Because the dangerous and radioactive components of the mixed waste can not be segregated, it is not feasible nor prudent to address the constituents separately.
3.	Soil sampling will be required. There are several issues which justify this requirement, which are: <ol style="list-style-type: none"> <li>1. Waste was stored outside the facility,</li> <li>2. the location of waste stored outside is unknown,</li> <li>3. because the location can not be verified, it is doubtful that inspections were conducted on these drums, and</li> <li>4. the spill, inspection, and inventory documentation is limited.</li> </ol> <p>Note: The response provided for this NOD does not agree with information provided in response to NOD number 5. Response to number 5 talks about a ten foot boundary around the unit, while the response to number 3 says no soil sampling is necessary.</p>
4.	The oil may not be regulated in its pure form (as an unused commercial chemical product), but once added to the dangerous waste, it is considered dangerous waste (WAC 173-303-070(2)(a)). Therefore, during clean closure decontamination verification, applicable petroleum products will be required to be incorporated into sampling parameter criteria.
5.	2-2/15-16. Concur with the ten foot boundary from exterior walls of facility, upon review of all available aerial photographs and/or interviews with past waste management personnel.

6. 2-2/38. Concur with the rationale that waste was probably not dispersed from exhaust fans, but soil sampling will be required within the ten foot boundary, addressed in previous comment/response.
7. 3-1. The last paragraph of this response states, "... past operation of the unit will not be included and are beyond the scope of the closure plan." This is an inappropriate response to the NOD. If past operations of this facility impact its closure, it is appropriate that such operations be evaluated for the purpose of decontamination and/or removal.
8. 3-1/7. Concur with omitting container sealing QA/QC for containers sealed before transport to the unit.  
  
Second issue, see number 7.
9. 3-2/10-16. Concur with container inspection procedures. Also, within the text of paragraph 4 of the ninth response, numerically define an acceptable count for releasing containerized radiological wastes.  
  
Last paragraph, see number 7.
10. 3-2/36-40. The response does not address the NOD at hand. Photos of past waste/product storage configuration shown in Appendices E-5 and E-6 contradict the response provided. Photo (APP E-5) shows the product material stacked around the waste storage area. In the past product drums were very similar to waste drums, as depicted in Appendix E-5. The product is shown to be stored in drums which are not inside wooden boxes, which are the same as the waste drums, except they do not have hazardous waste stickers. The only apparent distinction between the drums is the hazardous waste sticker on the waste drums. Because it is not uncommon for drums to be mislabeled, it is possible for waste to be incorrectly managed.  
  
Although this particular NOD does not request information on past operations, it should be noted that if past operations impact closure of the unit, it is appropriate to address such operations.
11. 4-1/10. See number 4.
12. 4-1/28. Concur with the addition of the information provided in the response to the closure plan. Due to the monthly radiation survey schedule, there is a question whether the waste stored less than a month could be received into and shipped out of the unit without a survey having been conducted. Please clarify if wastes were surveyed (radiological) coming into and out of the facility.  
  
Last paragraph of the response, see number 7.

13. 4-2/1. Concur with response to account for hydroxides and carbonates in the closure plan, but analysis will not be limited to these substances. The closure must account for wastes associated with the life and operation of the facility.
14. 4-2/23. See previous comment.
15. 6-1/18. Concur with first paragraph of the response.

The second paragraph of the 2/23/93 response states that the definition of "action level" for this closure plan is provided on page 6-1, lines 7-8. The referenced statement reads, "these standards will be achieved by removing dangerous waste from the 4843 AMSF and decontaminating to levels protective of human health and the environment..." This statement is consistent with the closure performance standards of WAC-173-303-040. However, neither WAC 173-303-040, nor proposed WAC 173-303-610(2) (to incorporate provisions of WAC 173-340-200) provide a definition for "action level."

On page 6-2, line 33, "action level" is defined as a concentration that prompts "an action." This statement could be interpreted as being consistent with the closure performance standard statement on page 6-1, lines 7-9. Although on page 6-2, lines 34-35, the action level for the metal surfaces is defined as "the limit of quantitation of the wipe sample method." Without identifying which particular analytes or analytical methods are to be utilized, the limit of quantitation cannot be established. Similarly, on page 6-2, lines 35-44, the action level for the concrete floor is proposed to be based on WAC 173-303-084, "Dangerous Waste Mixtures." Again, without including all applicable parameters and not identifying the corresponding analytical methods, appropriate "action levels" cannot be established. To avoid any further confusion on this subject, delete all "action level" references and phrases. It is recommended that after the waste characteristics of Chapter 4.0 are properly identified, the sampling and verification parameters and the analytical methods be re-evaluated and revised as appropriate. In addition, for simplicity, it is requested that a table be inserted into the plan which identifies parameters/analytes, detection levels, practical quantification levels, and corresponding analytical methods that the various medias will be sampled for. Another table to address analyte specific "cleanup levels" (as defined by WAC 173-340-200) for the various media should be considered for inclusion, if applicable.

16. 6-1/22. Concur.
17. 6-1/26-30. Concur.

In response to second paragraph of response, see comment number 13.

18. 6-1/34. Concur.
19. 6-1/35-36. Concur.
20. 6-1/37. Concur.

In response to second paragraph of response, see comment number 13.

21. 6-1/40-46. See RL/WHC response to comment 5. The closure plan states that the boundary of the unit is ten feet from the exterior walls of the building. Therefore, soil sampling within this boundary is appropriate. Modify text accordingly.
22. 6-2/7-10. The information provided in this response is not contained in the closure plan. Modify text to incorporate information into appropriate sections of the plan. It should be noted that the comment pertains to wastes generated during closure activities and the response addressed wastes in storage.
23. 6-1/13. Concur with first paragraph of response.  
  
See number 15 to address second paragraph of response.
24. 6-2/11. See number 15.
25. 6-2/33-35. See number 15.
26. 6-2/35-39. Concur with first paragraph of response.

Addressing the second paragraph of the response, the discussion of concrete composition variability as presented in the attachment to the 2/23/93 response table is accepted as valid. The proposal to utilize the Toxic Characteristic Leachate Procedure (TCLP) solely as a measure of decontamination verification is inappropriate. The purpose of the TCLP as it occurs in WAC 173-303-090 is to determine if the waste is dangerous waste by the characteristic of toxicity after it has been determined, not to be designated as a dangerous waste under any of the dangerous waste lists identified by WAC 173-303-090(8)(b). It should be noted that contaminants can be detected several magnitudes above background and may not leach using the TCLP. For this reason, these concentrations, if left in the environment, may be deleterious to the environment or human health. Therefore, the proposal to utilize TCLP for decontamination verification in the second paragraph of the response table cannot be approved.

Addressing clean closure verification in regard to the concrete, several sampling approaches should be considered. The establishment of background for the concrete taking the variables as identified in the discussion of concrete composition variability, as presented in the attachment to the February 23, 1993 response table, into consideration is the approach as specified by WAC 173-303-610. If this approach is deemed not to be feasible, a combination of analytical methods whereby total metals analysis (using the hot acid leach method), TCLP analysis, and rat and fish bioassays are conducted and evaluated, should be considered. Another approach to be considered is that of utilizing cleanup levels established by proposed WAC 173-303-610 (scheduled to be promulgated in December 1993 to amend WAC 173-303-610 to include WAC 173-340-200) whereby those cleanup levels specified in proposed WAC 173-340-740 for soils may be applied to concrete. Revision 1 of the closure plan should identify exactly which standards are to be utilized.

27. 7-3. The purpose of a saw-cut or a strip of material embedded in a concrete slab is to create a relief joint. Relief joints are used to control cracking in concrete by creating a fault line for the cracks to follow. They do not in any way prevent cracking or prevent complete penetration of cracks. Therefore, revise text accordingly.
28. 7-3/9. It is appropriate to use bias sampling (visual inspection and radiation survey) to locate suspect contamination within a unit. But it is not adequate to limit sampling to these areas for clean closure verification. Even though contamination of the walls is unlikely, it is not impossible. Therefore, random sampling of the walls will be required. Also, during a July 9, 1993 site visit, the insulation covered wall located above the sheet metal was noted to be torn/ruptured in many places. As drums were stacked three drums high, it is appropriate to verify clean closure of the walls above the sheet metal. The closure plan addresses only the sheet metal and should also include a description of how decontamination verification samples above the sheet metal will be collected.

Addressing the second comment of the response, the request is inconsistent with what was allowed in the 2727-S Facility closure. It should be noted that at this time, the referenced unit is known to have very little in common with the 4843 AMSF storage unit. During closure activities, if it is found that 4843 AMSF presents similar challenges to those of 2727-S, the additional information will be evaluated accordingly. Otherwise, biased and random sampling will be utilized. It is unfortunate that all units are not able to be managed consistently. Due to the unique nuances of each unit, and the perspective of the unit manager, it is a fallacy to assume that blanket site wide approval has been provided because a procedure, interpretation, or guidance has been provided by one regulator at one unit. Furthermore, during a project manager's meeting, it was decided that what is done at one unit may not appropriately be implemented at another unit. In other words, the actions taken at one unit do not set a precedent for all other RCRA units.

29. 7-3/46. See comment number 10.
30. 7-4/1. See comment number 13.
31. 7-4/9. Concur with the addition of a reference to appendix G to identify SW-846 protocols being used.

Specify why the number of samples (seven) proposed for the floor sampling is considered adequate. Has the number been based on a statistical goal to achieve a particular confidence interval?

Stratified sampling consists of taking samples at various depths/distances or geographical locations.

32. 7-4/14-31. Please indicate, in response, that text of page 7-4, lines 14-31, will be modified to delete references to WAC 173-303-084 for decontamination verification of the concrete.
33. 7-4/50. Concur.
34. 7-5/40-48. Concur with inclusion of provision to submit laboratory certification that SW-846 laboratory QA/QC procedures were utilized.
35. 7-6/7. It is suggested that "in accordance with EII ... " be inserted into the sentence.
36. 7-6/27-31. Concur.
37. 7-7/33-34. See comment number 3 and number 5.
38. 7-7/33. See comment number 3 and number 5.
39. 7-9/3-24. The work plan will need to be incorporated into the closure plan.

The "decommissioning work plan" procedures as referenced on page 7-9, Section 7.4, are required to be detailed within the closure plan. Again, as the document is a stand alone document, the inclusion of a description of decontamination procedures within the closure plan is required by WAC-173-303-610(3)(v). In addition, the Washington State Department of Ecology's "Guidance for Clean Closure of Dangerous Waste Facilities" (Draft) dated April 1993 recommends that at the start of closure, all surface areas be visually inspected for cracks and other openings through which washing fluid may reach the environment. The guidance recommends that all identified cracks or openings be sealed with a sealant resistant to both water

and any cleanser designated for use in the area. During a July 9, 1993 site visit, it was noted that the unit does not have a containment system. The decommissioning work plan procedures should identify what provisions will be made to prevent washing fluid, sandblasting sand, etc., from reaching the environment.

Concur with the revision of Section 7.4.

40. 7-9/29. While the estimated time for each closure activity is clearly presented in Figure 7-3, it appears that only one round of decontamination sample verification is anticipated. In contrast, Figure 7-1, indicates that the sampling flow path anticipates or allows for two rounds of decontamination sample verification in addition to removal of contaminated sections of the building. Verify if the scenario of Figure 7-1 occurred, whether or not closure could be conducted within 180 days.
41. F7-1. See comment number 3 and 5.
42. F7-2. See comment number 31 regarding the number of random samples proposed. Concur with random sampling logic.
43. F7-3. See comment number 3 and 5.
44. 8-1/52. Concur.
45. Appendix C. See comment number 4.
46. Appendix D. See comment number 13.
47. Appendix D. The information provided in the closure plan and the response is inadequate.  
Last paragraph of the response, see number 7.
48. 7-9/22. Alternative closure options must be presented in the closure plan.  
Concur with the revision of Section 7.4 of the closure plan.

**ADDITIONAL COMMENTS****GENERAL**

49. The wastes described on page 2 of 11 of the Part A (Rev. 2 dated 5/31/91), consist of dangerous and mixed alkali metal wastes. The storage area floor plan on page 8 of 11 of the Part A (Rev. 2 dated 5/31/91), identifies storage of dangerous and mixed alkali metal wastes. Section 2.2, lines 18-28, describes the storage of dangerous and mixed alkali metal wastes. Figure 2-3 identifies storage of dangerous and mixed alkali metal wastes. Section 3.2, lines 3-4, describes the storage of dangerous and mixed alkali wastes. Section 3.3, lines 36-39, also describes the storage of dangerous and mixed alkali wastes.

Section 3-0, lines 28 and 29, identify a nonwaste material which is also stored in the 4843 AMSF. The photograph on page 10 of 11 of the Part A (Rev. 2, dated 5/31/91), contains what appears to be containerized nonwaste material. Similarly, the photograph of Appendix E-5 contains what is identified as "nonwaste lithium metal container."

As provided by the examples above, there are contradicting descriptions and statements of the materials stored in 4843 AMSF. A detailed description of the unit within the text of the closure plan is necessary to satisfy WAC-173-303-610(3). A chronological history of the unit which provides times and waste locations/configurations within the unit is requested.

50. Section 4.2 describes the 340 Facility and Tanker as maintaining records providing laboratory reports with chemical, biological, and physical analysis of samples. Copies of reports which represent the types of wastes stored at 4843 AMSF are requested. In addition, a process description which would allow a waste characterization evaluation to be made is requested.
51. Appendix C appears to contain the April 1991 waste inventory for the 4843 AMSF. During review of the inventory, it was noted that the wastes were not presented in numerical order and also that numbers appear to have been omitted (i.e., numbers 13-43, 46, 48, etc.). Please provide an explanation of the omissions. Also, please provide an explanation of the radiological material counts. Do these counts represent the monthly radiation survey for April 1991?
52. Where applicable, the closure plan must specify what specific parameters will be analyzed. For example, Page 7-4, lines 1-4 refer to sodium carbonate and sodium hydroxide with no mention of total metals (sodium and lithium). Similarly, Page 7-4, lines 11-12 describe only the concern for carbonates. Currently, within the text of the closure plan, it is proposed to quantify concentrations of compounds. Conversely, Appendix G, proposes to utilize SW-846 Method 6010 which will not yield a concentration of a compound. It should be

noted that the sampling parameters are selected based on the waste characteristics. Upon identification of the characteristics associated with the wastes stored at this facility, all references to specific sampling parameters throughout the closure plan should be corrected accordingly. In addition, when deciding upon sampling parameters and analytes, applicable regulations should be evaluated to ensure that clean closure can be achieved in accordance with WAC 173-303.

53. Please provide the design condition calculations utilized to obtain the maximum storage of 22,000 gallon drums (400 55-gallon drums) presented in the Part A permit application.
54. Copies of the routine monthly radiation survey logs are requested.
55. It is requested that all available aerial photographs which include the unit, be made available for review by the unit manager.

#### SPECIFIC COMMENTS

56. 4.0. Chapter 4.0 does not include a description of the radiological characteristics of the waste. As the radioactive characteristics are intrinsic to the mixed waste, a description of the radionuclides associated with the waste is required.
57. 7.3.3. Describe in detail, the procedures to be utilized during the initial radiation survey identified in Section 7.3.3, page 7-4, line 6. Such description should include an identification of what type of radiation the equipment will be calibrated to detect, equipment identification by make and model number, procedures for actual survey of floor, etc. As the closure plan is a stand alone document, the inclusion of a detailed description of survey procedures is required by WAC-173-303-610(3).
58. 7.3.2. Similarly, include procedures to perform an initial radiation survey for the walls of the building.
59. 7-6/36-40. The procedures of Environmental Investigation Instruction EII 1.11 are referenced for evaluation of data. This particular procedure (EII 1.11) of the EII manual was not available to the reviewer prior to issuance of this NOD Response to Response Table. Please provide a copy of EII 1.11 for review.
60. 7.3.9/7-7. The details on sample packaging, shipping, preservation, quality assurance/quality control procedures, analytical methods and analytes, media identification, etc., are required by WAC-173-303-

610(3)(v) to be included in the closure plan. Also, as the document is a stand alone document, the reference to packaging specifications included in "Sample Packaging and Shipping" (WHC 1988) in Section 7.3.9, Page 7-7, in lieu of a detailed description is inappropriate.

61. Additional Appendix. It has been agreed that the DOE will submit annual closure cost estimates. For the purpose of identifying closure goals (clean closure by decontamination versus clean closure by removal), closure cost estimates for this unit are requested to be included as an appendix.
62. 7-4/50. EII 5.5 is cited as containing a description of equipment decontamination procedures. EII 5.5 appears to address decontamination of sampling equipment prior to taking the equipment into the field. On the same page, lines 18-20, it is described that chipping or coring of the concrete will be conducted. Confirm if those procedures of EII 5.4 are appropriate for inclusion.
63. 7-4/47-49. Describe decontamination wash water. If decontamination procedures are to be conducted in the field, the closure plan should include a detailed description of where and under what conditions those procedures will be conducted.
64. 7-5/7.3.5. Please include a provision for the field team leader or assignee identified in the EII 1.5, to document factory tracking numbers (i.e., batch or lot numbers associated with factory decontamination practices) for all containers and preservatives (where applicable) utilized during closure sampling activities.
65. 7-4/17-20. It is stated, "samples may be obtained by chip or coring method." The Washington State Department of Ecology's "Guidance for Clean Closure of Dangerous Waste Facilities" (Draft) dated April 1993, recommends that surface sampling be accomplished by collecting chips to a depth of approximately 1/2 inch from the surface. The guidance document also recommends that where surface contamination is present or in areas containing constituents that can permeate the concrete, core samples may be appropriate. The closure plan must specify what kind of concrete samples will be obtained (chip or core) from which locations. If random sampling is conducted, surface sampling (chip) may be the most appropriate. If biased sampling or decontamination verification after contamination confirmation is conducted, "subconcrete" sampling (core) may be appropriate.
66. Appendix G/Table G-1. After the waste characteristics of Chapter 4.0 are properly identified and the sampling parameters are agreed upon, include the additional analytes (and analytical methods) to Table G-1 of Appendix G.
67. Figure 7-1. Please add a rinsate component sampling flow path line to Figure 7-1.

68. Appendix G-5/Table G-1. The referenced "analytes of interest and analytical methods." Regarding lithium, SW-846 method description 6010 does not include lithium on Table 1. Therefore, the recommended wavelength, as well as the detection limit, are requested to be identified and confirmed for lithium using method 6010.
69. 7-10/7.7. Please include a provision to submit to the Dept. of Ecology Unit Manager, a copy of the field logbook upon completion of closure activities.
70. 7-10/7.7. Please include a provision to submit to the Dept. of Ecology Unit Manager, copies of all analytical results generated during closure sampling activities including radiation surveys.
71. 7-10/7.7. Please include a provision to submit to the Dept. of Ecology Unit Manager, supporting documentation supplied by the independent professional engineer's certification, if applicable.
72. 3-1/6-7. A review of FFTF process wastes has generated a question concerning the lithium wastes stored at 4843 AMSF. From page 3-1, lines 6-7, it appears that 4843 AMSF stored wastes generated at the FFTF "and at various other Hanford Site operations that used alkali metals." Please identify all of the sources of wastes stored at this unit. In addition, amend Chapter 4.0 accordingly to provide adequate waste characteristic descriptions.
73. Appendix C/C-11. Identifies waste number 77 as having been generated at the 4843 AMSF unit. Identify what this waste represents and confirm, if applicable, whether this waste represents waste generated during an event described in Appendix D.
74. 7-3/12-13. It is indicated that the wall wipe samples will be analyzed for lithium and sodium carbonates. Similarly, on page 7-4, lines 22 and 23, it is indicated that the concrete samples will be analyzed for "soluble" sodium and lithium carbonates. Appendix G, page App G-5, identifies SW-846 Method 6010 as the analytical method to be utilized. It should be noted that Method 6010 will yield detection concentrations as elements rather than as carbonate and hydroxide compounds. In the response to number 13 of the NOD, it is indicated that the plan will be modified to address both hydroxides and carbonates. If hydroxides and carbonates are to be sampled for, Table G-1 of Appendix G should reflect specific analytical methods other than SW-846 Method 6010.
75. 7-6/20-22. The referenced references a modification process as outlined by EII 1.4. Include a provision that the modification procedures of WAC 173-303-610(3) will be followed in the event that the closure plan must be amended.

76. 7-2/17-20. The procedures of Environmental Investigation Instruction EII 2.3 are referenced for unit characterization. This particular procedure (EII 2.3) of the EII manual was not available to the reviewer prior to issuance of this NOD Response to Response Table. Please provide a copy of EII 2.3 for review.
77. 7-3/43. During a site visit on July 9, 1993, several visible cracks were noted. Delete the statement regarding "no visible cracks within the floor."
78. 2-2/33-35 and 7-3/44-46. During a site visit on July 9, 1993, the concrete control joints/seams were noted to be filled with dirt rather than rubber. Correct the descriptions.
79. 7.3.3. During a site visit on July 9, 1993, the concrete control joints/seams appeared to be the "saw cut 1/8" wide X 1/4" deep" variety, rather than keyed construction joints (as not differentiated on Drawing Number FSK-7OE-164 of Appendix B). Include a description of the control joints/seams within the text.
80. 7.3.3. During a site visit on July 9, 1993, the dirt within about a foot long section of concrete control joint was removed. A substantial crack was noted to run the length of the dirt-cleared section. Prior to Revision 1 of the closure plan, propose to identify and document the extent of this crack noted within the control joint.
81. 7.3.3. During a site visit on July 9, 1993, numerous stains were noted on the concrete floor. As a forklift has been reported to have been utilized at the storage unit and oil stains may have been generated from its usage, the exact locations of the two spill incidents are requested to be identified.
82. 2-3/12-18. During a site visit on July 9, 1993, it was noted that security controls have changed from those described where referenced. Revise the description accordingly.
83. 7.3. During a site visit on July 9, 1993, it was mentioned that a radiological survey may be conducted at the unit prior to the approval of the closure plan. Describe how this will affect the closure plan.
84. 7.3. Through the NOD and response process, it appears that there is an agreement that biased sampling is appropriate and will be utilized during closure activities. Unlike the description on page 7-3 of incorporating survey results into a biased sampling plan relating to the walls, the description of the initial radiation survey of the floor on page 7-4 does not include the incorporation of the survey results as defining biased sampling locations. Include provisions within Section 7.3.3 to incorporate the results of the radiation and visual surveys to define biased sampling locations relating to the floor. The provisions should include a precise method of

locating those sampling locations generated during the visual and radiation surveys. Please note, the sampling location scale utilized in Figure 7-2, on page F7-2, would be insufficient to define/determine the biased sample locations.

85. 7.3.3. A more detailed description of decontamination verification procedures should be included. The details should specify how decontamination verification will be conducted in the event that it is necessary to repeat decontamination verification. To further explain, if decontamination verification is repeated, the closure plan should specify if samples will be collected from the same random and biased locations, if samples will be collected using chipping, coring, or a combination of chipping and coring methods, etc.
86. Additional Section. During a site visit on July 9, 1993, fiberglass insulation was noted above the sheet metal walls. It was also noted that the fiberglass insulation was torn, worn, and stained in numerous places. On page 7-7, line 34, it is indicated that the surface of the fiberglass insulation will be sampled for decontamination verification purposes. Include an additional section within the closure plan similar to Sections 7.3.2 and 7.3.3 which addresses sampling and verification of the fiberglass insulation.
87. 2-2/37-38. During a site visit on July 9, 1993, it was noted that electric service was not available. Please evaluate this to determine if service will be available during closure activities. If it is found that the previous electric service will not be restored, modify page 2-2, lines 37-38 and provide for an alternate light source to be available during closure activities.
88. 7-7/7.3.9. Please include that split or duplicate samples will be provided to Ecology upon request.

