



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

1315 W. 4th Avenue • Kennewick, Washington 99336-6018 • (509) 735-7581

August 13, 1997

Mr. John Wagoner, Manager  
U.S. Department of Energy  
P.O. Box 550  
Richland, WA 99352

Mr. Henry Hatch, President  
Fluor Daniel Hanford Incorporated  
P.O. Box 1000, MSIN: H0-09  
Richland, WA 99352

Mr. Steve Liedle  
Bechtel Hanford Company  
3350 George Washington Way  
Richland, WA 99352

Dr. William J. Madia, Director  
Pacific Northwest Laboratory  
P.O. Box 999  
Richland, WA 99352

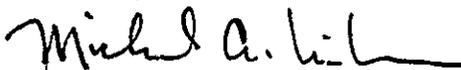


Dear Messrs. Wagoner, Hatch, Liedle, and Madia:

This letter transmits proposed modifications to the Hanford Facility Dangerous Waste Portion of the *Resource Conservation and Recovery Act Permit for the Treatment, Storage, and Disposal of Dangerous Waste* (Permit). We have also enclosed the supporting documentation for this modification of the Permit, which includes a Focus Sheet/Statement of Basis, copies of Ecology review completion letters (five applications), and a letter of tentative approval of a Class III modification.

The public comment period for this modification begins September 2, 1997, and ends on October 16, 1997. Any formal comments you have regarding the draft modifications must be received by our office during that time. If you have any questions, please contact Moses Jaraysi at (509) 736-3016.

Sincerely,

  
Michael Wilson, Manager  
Nuclear Waste Program

MW:MJ:rb

cc: Cliff Clark, USDOE  
Dave Bartus, EPA

Doug Sherwood, EPA  
Harold Tilden, PNNL

Sue Price, FDH

**Modifications to Part III of the Permit**

## CHAPTER 4

### **Low-Level Burial Grounds**

The Low-Level Burial Grounds (LLBG) are a mixed waste storage and disposal facility located in the 200 East and West Areas. This Chapter sets forth the operating Conditions for this TSD unit.

#### III.4.A. COMPLIANCE WITH APPROVED PERMIT APPLICATION

The Permittees shall comply with all the requirements set forth in the *Low Level Burial Grounds*, Rev. 1, as found in Attachment 34, including the amendments specified in Condition III.4.B. Enforceable portions of the application are listed below; all subsections, figures, and tables included in these portion are also enforceable unless otherwise stated:

- Section 1.0 Part A Application
- Section 2.2 Topographic Map
- Section 3.0 Waste Analysis Plan and Manifest System
- Section 4.0 Process Information
- Section 5.0 Groundwater Monitoring
- Section 6.0 Procedures to Prevent Hazards
- Section 7.0 Contingency Plan
- Section 8.0 Personnel Training
- Section 10.0 Waste Minimization
- Section 11.0 Closure and Financial Assurance
- Section 12.0 Reporting and Recordkeeping
- Appendix 2A Topographic Maps
- Appendix 3A Waste Analysis Plan for Low-Level Burial Grounds
- Appendix 4A Construction Quality Assurance Report
- Appendix 4B Definitive Design
- Appendix 4C Response Action Plan
- Appendix 4D Request for Exemption from Lined Trench Requirements at 218-E-12B Burial Ground Trench 94
- Appendix 4E Site Investigation Report

- Appendix 4F 9090A Test Results
- Appendix 4G Soil Liner Performance Calculations
- Appendix 5A Interim Status Groundwater Monitoring
- Appendix 5B Suspension of Groundwater Sampling at Low-Level Waste Management Area 5
- Appendix 7A Building Emergency Plan for Low-Level Burial Grounds
- Appendix 8A Training

**III.4.B. AMENDMENTS TO THE APPROVED PERMIT APPLICATION**

- III.4.B.a. Pages 1-1 through 1-4 are deleted.
- III.4.B.b. Part A, Form 3, Page 12 of 25. The sentence "Current LLBG operations do not allow for storage or disposal ...." Is deleted and replaced with "Current LLBG operations do not allow for the storage or disposal of ignitable, reactive, and incompatible wastes."
- III.4.B.c. Page 3-1, line 41 - 43. Delete and replace with "Free liquids as described in appendix 3A, section 1.2 will not be accepted at the Low-Level Burial Grounds."
- III.4.B.d. Page 4-1, line 4. The words "store and" is added after the words "used to."
- III.4.B.e. Page 4-1, line 21 -27. Delete and replace with "Mixed waste disposed in containers may not contain free liquids or have greater than 10% void space. There are waste shipments containing condensed liquid vapor and greater than 10% void space which will require disposal. These waste shipments will meet a performance standard for packaging to prevent releases to the environment. Free liquids are further addressed in Appendix 3a, section 1.2. If greater than 10% void space is present in any container, it must be crushed, shredded, or similarly reduced in volume to the maximum practical extent before burial in the landfill."
- III.4.B.f. Page 4-1, line 41. The words "or disposal" is added after the word "storage."
- III.4.B.g. Page 4-2, line 31. The words "typically would" are deleted and replaced with "shall."
- III.4.B.h. Page 4-2, line 32. The word "Ecology" is added before the word "approved."
- III.4.B.i. Page 4-2, line 33. The word "would" is deleted and replaced with "shall."
- III.4.B.j. Page 4-2, line 34. The sentence "Waste received in flexible containers (i.e., supersacks and plastic bags) may be opened in the Low-Level Burial Grounds and are not required to be re-sealed prior to disposal."
- III.4.B.k. Page 4-3, line 10. The word "repackaged" is deleted and replaced with "mitigated and controlled in accordance with WAC 173-303-145."
- III.4.B.l. Page 4-3, line 34 - 35. Delete and replace with "Soil (operations layer) contaminated by the spill will be removed in accordance with WAC 173-303-145 and containerized."

- III.4.B.m. Page 4-3, line 38. The sentence “The operations layer is replaced in a timely manner to ensure protection of the underlying liner.” is added following the sentence ending with “adequacy.”
- III.4.B.n. Page 4-4, line 4 - 8. Delete and replace with “Testing for free liquids shall be performed IAW Appendix 3A, Waste Analysis Plan, for mixed wastes accepted for storage and disposal in the LLBG.”
- III.4.B.o. Page 4-4, line 32-34. Delete and replace with “Confirmation and verification processes to ensure that ignitable, reactive and incompatible wastes are not stored or disposed in the LLBG is described in Appendix 3A.”
- III.4.B.p. Page 4-22, line 2. The word “When” is deleted and replaced with “The systems shall be.”
- III.4.B.q. Page 4-22, line 11. The sentence “If raincovers as described in section 4.5.3.1.1 are used on lined trenches, then the primary leachate collection system is allowed to be placed in the manual operation mode during weekends and holidays provided that the secondary leachate collection system continues to be operated automatically and discharges to the primary leachate collection system.”
- III.4.B.r. Page 4-30, line 49. The words “after 25-year storm event” is deleted and replaced with “within 7 days of significant runoff events and maintenance to repair any damage found within 60 days of discovery.”
- III.4.B.s. Page 4-31, line 14-17. Delete and replace with “Free liquids as described in appendix 3A, section 1.2 will not be accepted at the Low-Level Burial Grounds.”
- III.4.B.t. Page 6-1, line 33. The word “mixed” is added before the word “wastes.”
- III.4.B.u. Page 6-1, line 34. The remainder of the sentence beginning with the words “as soon as practical” is deleted and replaced with “within 24 hours, except for the Reactor Compartments.”
- III.4.B.v. Page 6-2, line 17. The words “on a schedule that helps” is deleted and replaced with “within 14 days or less, unless otherwise specified by Ecology, to.”
- III.4.B.w. Page 6-2, line 19. The sentence “If subsidence is discovered within the LLBG, the subsidence shall be stabilized within 90 days and control measures established within 14 days to minimize precipitation and runoff from accelerating contaminant migration.” is added.
- III.4.B.x. Page 6-2, line 48. The word “storage” is added after the word “weekly”
- III.4.B.y. Page 6-3, line 14. The word “precipitation” is deleted and replaced with “runoff.”
- III.4.B.z. Page 6-3, line 14. The sentence beginning with “Only” is deleted and replaced with “The inspection is documented and discrepancies scheduled for correction.”
- III.4.B.aa. Page 6-3, line 37. The word “longer” is deleted and replaced with “within 30 days.”
- III.4.B.bb. Page 6-3, line 44. The words “but no later than 60 days” is added after the word “supervisor.”
- III.4.B.cc. Page 6-4, line 36. The word “precipitation” is deleted and replaced with “runoff”

- III.4.B.dd. Page 6-4, line 43. The word “storm” is deleted and replaced with “runoff.”
- III.4.B.ee. Page 6-5, line 22. The words “assumed to be” are added after the word “is.”
- III.4.B.ff. Page 6-5, line 39. The words “unless specifically approved by the operations supervisor” are deleted.
- III.4.B.gg. Page 6-5, line 40. The words “The supervisor only would grant approval” are deleted
- III.4.B.hh. Page 6-5, line 41-46. Delete and replace with “To operate in winds over 24 kilometers per hour, it must be determined that completion of the waste handling activity is more protective of human health and the environment than suspension of the incomplete activity. Measures to prevent wind dispersion shall be implemented. This condition shall not apply to containerized or stabilized waste that has no potential for wind dispersal.”
- III.4.B.ii. Page 6-6, line 19. The words “when pumping occurs” is deleted and replaced with “the leachate storage tank is emptied”
- III.4.B.jj. Page 6-6, line 23. The word “Periodic” is deleted and replaced with “At minimum, monthly”
- III.4.B.kk. Page 6-6, line 25. The words “and thaw damage” is deleted and replaced with “protection”
- III.4.B.ll. Page 7-1, line 12 -14. Delete and replace with “All revisions to the building emergency plan will be considered Class 1 modifications except modifications which change a dangerous waste spill or release response procedure or removes equipment from the emergency equipment list. In addition to the requirements set forth in appendix 7A, the LLBG operating organization shall provide a report to Ecology within 15 days of any incident which results in a release of mixed waste to the environment or injury/suspected chemical overexposure to any employee at the facility. The report shall review and evaluate the cause of the incident and a description of the corrective actions taken to prevent reoccurrence. This condition shall apply until such time that the Permit Contingency Plan is modified to further address and clarify the reporting requirements to Ecology.”
- III.4.B.mm. Page 11-2, line 48 - 52. Delete
- III.4.B.nn. Page 11-3, line 1 - 14. Delete.
- III.4.B.oo. Page 11-3, line 31 - 52. Delete
- III.4.B.pp. Page 11-4, line 1 - 9. Delete
- III.4.B.qq. Page 11-3, line 30. The following text is inserted:

“Filled trenches shall be inspected, at minimum, every three months, and deficiencies corrected within 90 days of discovery.

For existing regulated units which are completely filled, a closure plan shall be developed and integrated with surrounding SWMU corrective action plan. A corrective action plan shall also be developed for SWMU 218-W-4B. The compliance schedule for several identified units is shown below. The remaining units not identified below shall be reviewed during the 10 year Sitewide permit review to determine an appropriate compliance schedule.

Sep 30, 1998: Submit a workplan to investigate releases to the environment from 218-W-4B, southern filled SWMU portion of 218-E-12B, southern filled portion of 218-E-10, and 218-W-3A.

Sep 30, 1999: Implement an approved Ecology workplan for 218-W-4B, southern filled SWMU portion of 218-E-12B, southern filled portion of 218-E-10, and 218-W-3A.

Sep 30, 2001: Complete implementation of the Ecology approved workplan.

Trench 31 and 34 shall have a closure plan meeting the requirements of WAC 173-303 submitted during the Sitewide permit's 10 year review. Trench 94 shall not be required to develop a closure plan at this time provided the Reactor Compartments are visually inspected and maintained. A closure plan requirement for Trench 94 will be reviewed at the 10 year review of the Permit."

- III.4.B.rr. Page 11-16, line 47. The sentence beginning "Closure" is deleted and replaced with "Individual trenches and portions of burial grounds may be maintained until closure (e.g. Reactor Compartment Trench), have an interim cover placed prior to closure, or be closed. An evaluation of any releases to the environment and threat posed by those releases for each unit will be considered prior to making a decision."
- III.4.B.ss. Page 11-17, line 6. The words "at a time when a closure date is established" are deleted and replaced with "during each 10 year review."
- III.4.B.tt. Page 11-17, line 19. An extension for closure of post-August 19, 1987, regulated mixed waste is granted provided compliance with the schedule of activities outlined in section 11.3.
- III.4.B.uu. Page 11-17, line 22-23. Delete and replace with "The need to develop a postclosure plan will be evaluated during 10 year review."
- III.4.B.vv. App 3A, page 1-3, line 36 -38. Delete and replace with "Defueled Reactor Compartments will be disposed of in Trench 94 under an exemption allowed by WAC 173-303-665(2)(b) (refer to DOE/RL-88-20, Appendix 4D)."
- III.4.B.ww. App 3A, page 1-3, line 43. The word "could" is deleted and replaced with "shall."
- III.4.B.xx. App 3A, page 1-3, line 43. The words "any one or combination of" is added after the word "using."
- III.4.B.yy. App 3A, page 1-4, line 1. Delete and replace with "A combination of analytical data or screening results and one or more of the following."
- III.4.B.zz. App 3A, page 1-4, line 5. Delete the word "Validated" and replace with "Qualified."
- III.4.B.aaa. App 3A, page 1-4, line 6. Delete and replace with "Radiation Work Package."
- III.4.B.bbb. App 3A, page 1-4, line 17. The word "is" is deleted and replaced with "shall be considered."
- III.4.B.ccc. App 3A, page 1-4, line 19. The word "The" is deleted and replaced with "A."
- III.4.B.ddd. App 3A, page 1-4, line 21. The words "The PES provides" is deleted and replaced with "A PES shall provide."

III.4.B.eee. App 3A, page 1-4, line 22. The words “the PES provides” is deleted and replaced with “A PES shall provide.”

III.4.B.fff. App 3A, page 1-4, line 28. The word “general” is deleted.

III.4.B.ggg. App 3A, page 1-4, line 26-40. Delete and replace with “1.1.1.3.1 Initial Physical Screening Frequency Determination. The initial physical screening frequency shall be determined based upon the following process:

1. The TSD unit reviews the customer profile information to determine the relative potential for misdesignation or inappropriate segregation based on all relevant information including any previous experience with customer by the TSD unit or other TSD units. Based upon this review, the TSD identifies any concerns associated with the following three criteria:

- a. Documented Waste Management Program,
- b. Waste Stream Characterization Information, and
- c. Potential for Inappropriate Segregation.

2. Based upon the identification of concerns during the review, the TSD establishes the initial physical screening frequency for the new customer’s waste stream based upon the following criteria:

- **Initial Physical Screening Frequency of, at minimum, 15%: No Concerns Identified:** *EXAMPLE: Clean-up of contaminated soil where the soil has been well characterized and no other waste generation processes are occurring at that location.*
- **Initial Physical Screening Frequency of, at minimum, 50%: Concern(s) Identified In One Criteria:** *EXAMPLE: A facility with many different process which generate debris that have differing management paths.*
- **Initial Physical Screening Frequency Of 100%: Concerns Identified In Two Or More Criteria:** *EXAMPLE: A facility with many different process and questionable segregation controls.*

III.4.B.hhh. App 3A, page 1-4, line 42-52. Delete and replace with “1.1.1.3.2 MONTHLY PERFORMANCE EVALUATION:

A performance evaluation shall be performed monthly and be used to trend a generator’s performance and adjust the generator’s overall physical screening frequency. The evaluation shall be objective and consider the conformance issues documented during the Preshipment Review and Verification functions. These conformance issues are tracked and maintained on file. The conformance reports are used to complete a customer evaluation and adjust the physical screening rate as shown. An example customer evaluation worksheet is shown in Figure B.1. As a minimum requirement, the content contained in the example worksheet shall be used to adjust the customer’s physical verification frequency rate using the process below.

- A customer receiving a score of 10 or greater has demonstrated less than satisfactory performance and must be evaluated for corrective action by the LLBG operating organization.
- The physical screening frequency requirements for the customer is increased based upon the following criteria:

- Score of 10 to 15, based on severity, frequency increased to between 15 and 50%
- Score of 16 to 20, based on severity, frequency is increased to between 50 and 100%.
- Score greater than 20, frequency is increased to 100%.

III.4.B.iii.

App 3A, page 1-5, line 5-27. Delete and replace with “**1.1.1.3.3 CONFORMANCE ISSUE RESOLUTION:**

Conformance issues identified during verification may result in a waste container which does not meet the TSD unit's acceptance criteria. If a possible conformance issue is identified the following steps are taken to resolve the issue:

1. TSD unit personnel compile all information concerning the possible conformance issue(s).
2. The generator is notified and requested to supply additional knowledge to assist in the resolution of the concern(s). If the generator supplies TSD personnel with information which alleviates the concern(s) identified, no further action is required.
3. Upon determination that a conformance issue has been identified, the TSD unit personnel and generator discuss the conformance issue and identify the appropriate course of action to resolve the container/shipment in question, i.e. pick another sample set, return the container/shipment, divert the shipment to another TSD unit which can accept the container and resolve the issue, or the generator resolves the issue at the TSD unit. If the conformance issue(s) result in the failure of a shipment, the physical screening frequency for all stream(s) from the generator are adjusted to 100% until the issue(s) can be adequately addressed.
4. Upon resolution of the initial conformance issue, the TSD unit requests the customer to provide them with a Corrective Action Plan (CAP) which clearly states the reason for the failure and describes the actions to be completed to prevent reoccurrence. The customer may request a reduction in verification of unaffected streams. This request must be accompanied by a justification which identifies why this stream(s) will not exhibit the same conformance issue.
5. The TSD unit reviews the CAP and stream justification for adequacy. If a CAP is not deemed adequate the generator remains at a physical screening rate of 100%. If the stream justification is adequate, the TSD may provide an alternative frequency as denoted in Section 1.1.1.3.2.
6. The TSD unit determines whether the failure is indicative of a programmatic or stream specific failure and adjusts the customer's minimum physical screening frequency based upon the following criteria and the customer's performance within the last 12 months:
  - a. 15% to 50% - Conformance issue which would not qualify as a safety problem, regulatory issue, or resulted in mismanagement of the waste.
  - b. 50% to 100% - Conformance issue which has regulatory impacts, however the waste would not have been mismanaged or caused a safety problem.
  - c. 100% - Conformance issue which has regulatory impacts, wates would have been mismanaged, or caused a safety problem.”

III.4.B.jjj. App 3A, page 1-5, line 30 - 52. Delete and replace with **“1.1.2 PROCESS FOR REDUCING THE PHYSICAL SCREENING FREQUENCY:**

After a generator's frequency has been adjusted due to poor performance or initial frequency established, their physical screening frequency can be reduced in accordance with the following:

1. The physical screening frequency will be stepped down in three steps based upon the ability of the generator to quickly implement their CAP or demonstrate their ability to appropriately manage waste (as applicable). At no time shall the physical screening frequency be reduced below the 5% for onsite generators or 10% for offsite generators.

STEP 1) Reduce frequency by 66% the first month.

STEP 2) Reduce frequency established in Step 1 by 50% or the minimum allowable whichever is greater.

STEP 3) Reduce frequency to the minimum allowable.

2. The reduction will be determined during the monthly evaluation process, however the following minimum criteria must be met prior to reduction of the frequency:

- 5 containers from the streams in question must pass verification, and
- The TSD documents their evaluation of the CAP or new generator's waste management program has been implemented and is effective.

If the frequency was increased based upon conformance issues upon receipt of the waste, the CAP must be fully implemented prior to the customer returning to the minimum physical screening frequency. However, wastestreams from the same generator which did not have conformance issue upon receipt at the LLBG may be returned to the minimum verification frequency if it is determined by the LLBG operating organization that it is unlikely that the specific conformance issue will affect the generator's other wastestreams.”

III.4.B.kkk. App 3A, page 1-6, line 19. The word “is based on” is deleted and replaces with “requires.”

III.4.B.iii. App 3A, page 1-6, line 20. Delete the word “and” and replace with “and/or.”

III.4.B.mmm. App 3A, page 1-6, line 41. The words “offsite contract” is deleted and replaced with “other independent.”

III.4.B.nnn. App 3A, page 1-6, line 46-50. Delete.

III.4.B.ooo. App 3A, page 1-7, line 1 -27. Delete and replace with **“1.1.4.1.3 Waste Knowledge Exception.** During waste retrieval from existing LLBG trenches, the waste can be transferred to onsite TSD storage and treatment units provided they meet the WAP for the receiving unit. In addition, hazardous debris, as defined in WAC 173-303-040, that is managed in accordance with 40 CFR 268.45 is not required to be sampled to meet federal and state-only LDR regulations. Additionally, other waste forms may be encountered which may be impractical to meet the stringent requirements of Appendix 3A. For those cases where it is technically not advisable to perform the requirements of this WAP, an alternative waste management plan as proposed in Appendix 3A, Section 1.2.1, may be developed to verify the wastes.”

- III.4.B.ppp. App 3A, page 1-7, line 45-46. Delete and replace with “The container is designed to hold free liquids for use other than storage, such as a battery or capacitor. There may be cases in which free liquids may be present in mixed waste containers because condensate has formed following packaging in plastic or free liquids are suspected of remaining in large debris items where it is not practical to remove them and impossible to sample to determine if they are present. In these cases, the free liquids shall be eliminated to the maximum extent practical by placing absorbents/dessicants within the plastic packaging or, in the case of large debris items, by draining suspected liquids at low points and placing adequate absorbent around each item.”
- III.4.B.qqq. App 3A, page 1-8, line 13. The sentence beginning with “Paper, sawdust” is deleted.
- III.4.B.rrr. App 3A, page 1-8, line 25. The sentence beginning with “Mixed waste” is deleted and replaced with “Waste with chemical constituents other than those tested will be evaluated to determine their ability to degrade the liner and result in a loss of liner integrity.”
- III.4.B.sss. App 3A, page 1-8, line 37. The word “managed” is deleted and replaced with “stored and disposed.”
- III.4.B.ttt. App 3A, page 1-8, line 43. The word “could” is deleted and replaced with “shall.”
- III.4.B.uuu. App 3A, page 1-9, line 23 – 25. Delete and replace with “During the next permit modification cycle and no later than 1 year, a modification to the WAP shall be submitted. Approval for a AWMP which violates a specific prohibition outlined in Appendix 3A is not permitted without first receiving a modification to the Permit.”
- III.4.B.vvv. App 3A, page 2-1, line 35. The words “detailed in Section 1.1.4.2” is deleted and replaced with “necessary to safely handle and dispose of the waste.”
- III.4.B.www. App 3A, page 2-1, line 42. The words “more often” are added after the word “or.”
- III.4.B.xxx. App 3A, page 2-1, line 46. The word “requested” is deleted.
- III.4.B.yyy. App 3A, page 2-2, line 8. The sentence beginning with “For bulk waste” is deleted.
- III.4.B.zzz. App 3A, page 2-2, line 14. The words “an approved designated organization” is deleted and replaced with “its representative.”
- III.4.B.aaaa. App 3A, page 2-2, line 21. Delete the sentence beginning with “Because waste treatment ...” and replace with “All generators are subject to LDR and are required to submit all notifications and certifications described in 40 CFR 268.7.”
- III.4.B.bbbb. App 3A, page 2-2, line 47-52. Delete and replace with “A representative sample of the waste must be submitted for analysis to ensure that concentration based LDR treatment standards are met.”
- III.4.B.cccc. App 3A, page 2-3, lines 1-6. Delete.
- III.4.B.dddd. App 3A, page 2-3, line 9-48. Delete and replace with “2.2 Verification. Verification consists of container receipt inspection, physical screening, and chemical screening.
- III.4.B.eeee. App 3A, page 2-4, line 8. The word “/shipments” is deleted.

- III.4.B.ffff. App 3A, page 2-4, line 14. The sentence “For bulk shipments and remote handled waste, the shipment will be inspected to ensure the waste shipped is that denoted in the documentation.”
- III.4.B.gggg. App 3A, page 2-4, line 13. The sentence “The container receipt inspection is performed by the LLBG operating organization or its representative at the LLBG or at another location onsite. When another location is chosen, the container receipt inspection shall be completed within 24 hours of disposal of the wastes.” is added after the word “container.”
- III.4.B.hhhh. App 3A, page 2-4, line 16. The word “guidance” is deleted.
- III.4.B.iiii. App 3A, page 2-4, line 25. The “e.g.” is deleted and replaced with “i.e.”
- III.4.B.jjjj. App 3A, page 2-4, line 33. The sentence “Following 90 days from the date of the first operating RTR unit’s failure, choosing method #3 or #4 is not permitted if the basis for choosing one of these two methods is because the RTR units are not functional.”
- III.4.B.kkkk. App 3A, page 2-4, line 39. The word “minimum” is deleted.
- III.4.B.iiii. App 3A, page 2-4, line 40. The words “in accordance with Section 2.2” is deleted and replaced with “5% for onsite generators applied per waste stream per subcontractor per year provided it verifies every complex (e.g. PUREX, B-Plant, etc) or cleanup project (e.g. 300 FF-1, etc) each year, and that the first waste stream shipment received from each subcontractor is verified and subsequent verifications are evenly distributed throughout the calendar year. For offsite generators, the minimum physical verification rate is 10% per wastestream per generator per year.”
- III.4.B.mmmm. App 3A, page 2-4, line 47. The words “any and all” is deleted.
- III.4.B.nnnn. App 3A, page 2-5, line 1 - 4. Delete and replace with “Choose containers from different onsite generator’s and of different waste types to provide variability in physical screening.”
- III.4.B.oooo. App 3A, page 2-5, line 6-8. Delete.
- III.4.B.pppp. App 3A, page 2-5, line 18. The word “equipment” is deleted and replaced with “operation.”
- III.4.B.qqqq. App 3A, page 2-5, line 22. The word “generator” is deleted and replaced with “LLBG operating organization or its representative.”
- III.4.B.rrrr. App 3A, page 2-5, line 24. The sentences “If the evaluation of RTR shows that a false negative has occurred, a review of the RTR operation is required and must determine if the false negative was due to operator error, equipment malfunction, or equipment limitations. Based on the review, corrective actions are required to be implemented prior to use of RTR as a physical screening tool.”
- III.4.B.ssss. App 3A, page 2-5, line 26 -28. Delete and replace with “2.2.2.3 The following exceptions to the physical screening process outlined above have been developed.”
- III.4.B.tttt. App 3A, page 2-5, line 31. The word “generator” is deleted and replaced with “LLBG operating organization or its representative.”
- III.4.B.uuuu. App 3A, page 2-5, line 47 - 48. Delete.

- III.4.B.vvvv App 3A, page 2-6, line 15. The words "guidance on the" is deleted.
- III.4.B.wwww. App 3A, page 2-7, line 1. The words "Laboratory hood waste" is deleted and replaced with "Small containers of mixed waste."
- III.4.B.xxxx App 3A, page 2-7, line 5. Delete.
- III.4.B.yyyy. App 3A, page 2-7, line 29. The word "confirmed" is deleted.
- III.4.B.zzzz. App 3A, page 2-7, line 37. The words "with Ecology approval" is added after the word "basis"

## CHAPTER 5

### **200 Area Liquid Waste Complex**

The 200 Area Liquid Waste Complex is an aqueous waste treatment system consisting of two units: the Liquid Effluent Retention Facility (LERF) and the Effluent treatment Facility (ETF). This Chapter sets forth the operating Conditions for this TSD unit.

#### **III.5.A      COMPLIANCE WITH APPROVED PERMIT APPLICATION**

The Permittees shall comply with all requirements set forth in the *200 Area Liquid Waste Complex Permit Application*, Rev.0, as found in Attachment 35, including the amendments specified in Condition III.5.B, if any exist. Enforceable portions of the application are listed below (All subsections, figures, and tables included in these portions are also enforceable unless stated otherwise):

Part A, Form 3, Permit Application, Revision 5

Section 2.2	Topographic Map
Section 3.2	Waste Analysis Plan
Chapter 4.0	Process Information
Chapter 5.0	Groundwater Monitoring
Chapter 6.0	Procedures to Prevent Hazards
Chapter 7.0	Contingency Plan
Chapter 8.0	Personnel Training
Chapter 11.0	Closure and Financial Assurance
Chapter 12.0	Reporting and Record Keeping
Chapter 13.0	Other Federal and State Laws
Appendix 2A	Topographic Map
Appendix 3A	Waste Analysis Plan for the Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility
Appendix 4A	Detailed Drawings for the Liquid Effluent Retention System
Appendix 4B	Detailed Drawings for the 200 area Effluent Treatment Facility Container Storage Area and Tank Systems
Appendix 5A	Liquid Effluent Retention Facility Final Ground Water Monitoring Plan, PNNL-11620, See Amendment III. 5.B.c

Appendix 7A Building Emergency Plan for the Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility

Appendix 8A 200 Area Liquid Waste Processing Facilities Administrative Policies. Dangerous Waste Training Plan

III.5.B. AMENDMENTS TO THE APPROVED PERMIT APPLICATION

III.5.B.a. Section 4.4.6: add the following paragraph, "All tanks systems holding dangerous waste are marked with labels or signs to identify the waste contained in the tank. The labels or signs are legible at a distance of at least fifty feet and bear a legend that identifies the waste in a manner which adequately warns employees, emergency response personnel, and the public of the major risk(s) associated with the waste being stored or treated in the tank system(s).

III.5.B.b. Appendix 3A. Waste Analysis Plan for the Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility

III.5.B.b.1. The Permittees shall comply with all the requirements subsections, figures, tables, and appendices included in the "Waste Analysis Plan for Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility," except that the "Wastewater Profile Sheet form is included as an example only. The actual Wastewater Profile Sheet format may vary, but will contain the same substantive information as the example form.

III.5.B.b.2. Section 1.0 Introduction

After lines 38 to 40 on page 1-2 ("Therefore, revisions of this WAP that are not governed by the requirements of WAC 173-303 will not be considered as a modification subject to review or approval by Ecology.") add the following: "However, any revision to this WAP will be incorporated into the Hanford Dangerous Waste Permit at least annually."

III.5.B.b.3. Section 1.1 Liquid Effluent Retention Facility and Effluent Treatment Facility Description

Delete the word "access" in line 3 of page 1-3 and replace it with "aqueous."

III.5.B.b.4. Section 1.1 Liquid Effluent Retention Facility and Effluent Treatment Facility Description

Delete the phrase "and analyzed" in line 28 of page 1-4. The sample of treated effluent from the verification tanks is not analyzed in-line, but is transferred to a laboratory for analysis.

III.5.B.b.5. Section 2.2 Waste Management Decision Process

Insert the word "to" in line 28 of page 2-4, so the item reads as follows: "An aqueous waste is not allowed under the current Discharge Permit or Final Delisting, and LERF/ETF management elect not to pursue an amendment, or the permit and Delisting cannot be amended (Section 2.2.1)."

III.5.B.b.6. Section 4.1 Sampling Procedures

Replace the sentence, "Other exceptions will be handled on a case-by-case basis." with "Other exceptions will be handled on a case-by-case basis and the operating record will be maintained at the unit for inspection by the Department."

III.5.B.b.7. Section 6.1 Dry Powder Waste

The following terms used in this section, including powder, dry powder, waste powder, and dry waste powder, are equivalent to the term "dry powder waste" as defined in lines 21 through 28 on page 6-1.

III.5.B.b.8. Section 6.3 Other Waste Generated at the 200 Area Effluent Treatment Facility

Insert the phrase "according to Washington State regulatory requirements" after the word "designated" in line 11 on page 6-5.

III.5.B.b.9. Table 6-1. 200 Area Effluent Treatment Facility Powder, Concentrate, Tank, Maintenance and Operations, and Unknown Waste Sampling

Footnote 1 is revised as follows: For concentrate tank samples, the total sample (solid plus liquid) is analyzed and the analytical result is expressed on the dry weight basis. The result for each toxicity characteristic metal and organic is divided by a factor of 20 and then compared to the Toxicity Characteristic (TC) constituent limits [WAC 173-303-090(8)]. If the TC limit is met or exceeded, the waste is designated accordingly. All measured parameters are compared against the corresponding treatment standards.

III.5.B.b.10. Section 7.2 Analytical Program

The beginning of Section 7.2 Analytical Programs is repeated on page 7-1. Delete the portion on page 7-1. Replace the sentence "The quality control/quality assurance program of the onsite analytical laboratory is based on Hanford Site analytical services quality assurance/quality control requirements." with "The quality assurance/quality control program for sampling and must comply with the applicable Hanford Site standard requirements and the regulatory requirements. All analytical data will be defensible and will be traceable to specific, related quality control samples and calibrations."

III.5.B.b.11. Appendix B Table B-1 Sample and Analysis Criteria for Influent Aqueous Waste and Treated Effluent and Table B-2 Sample Containers, Preservative Methods, and Holding Times for ETF Powder, Concentrate Tank, Maintenance and Operations, and Unknown Waste

Footnote "c" on page APP B-2 is deleted.

III. 5.B.c. Liquid Effluent Retention Facility Final Ground Water Monitoring Plan, PNNL-11620, is an integral Part of this permit and is to be added as Appendix 5A to the 200 Area Liquid Waste Complex Permit Application.

III.5.B.d. Appendix 7A, Building Emergency Plan for 200 Area Effluent Treatment Facility and Liquid Effluent Retention Facility.

III.5.B.d.1. Section 3.2, add to end of first paragraph; "Only qualified personnel will perform response actions."

III.5.B.d.2. Section 5.2.1, add to end of first sentence of first paragraph; "other than the radioactive/dangerous/mixed waste discussed in Section 5.2.3."

## CHAPTER 6

### **242-A Evaporator**

The 242-A Evaporator is a mixed waste treatment and storage unit consisting of a conventional forced-circulation, vacuum evaporation system to concentrate mixed-waste solutions. This Chapter sets forth the operating Conditions for this TSD unit.

#### **III.6.A. COMPLIANCE WITH APPROVED PERMIT APPLICATION**

The Permittees shall comply with all requirements set forth in *242-A Evaporator Permit Application, Rev. 1*, as found in Attachment 36, including the amendments specified in Condition III.6.B, if any exist. Enforceable portions of the application are listed below; all subsections, figures, and tables included in these portions are also enforceable unless stated otherwise):

##### Part A, Form 3, Permit Application, Revision 7

Section 2.2	Topographic Map
Section 3.2	Waste Analysis
Chapter 4.0	Process Information
Chapter 6.0	Procedures to Prevent Hazards
Chapter 7.0	Contingency Plan
Chapter 8.0	Personnel Training
Chapter 11.0	Closure and Financial Assurance
Chapter 12.0	Reporting and Record Keeping
Chapter 13.0	Other Federal and State Laws
Appendix 2A	Topographic Map
Appendix 3A	Waste Analysis Plan for 242-A Evaporator
Appendix 4A	Engineering Drawings
Appendix 4B	The 242-A Evaporator/Crystallizer Tank System Integrity Assessment Report
Appendix 7A	Building Emergency Plan for 242-A Evaporator
Appendix 8A	200 Area Liquid Waste Processing Facilities administrative Policies, Dangerous Waste Training Plan

III.6.B. AMENDMENTS TO THE APPROVED PERMIT APPLICATION

III.6.B.a. Appendix 3A, Waste Analysis Plan (WAP) for 242-A Evaporator

III.6.B.a.1. Section 1.1 Purpose

The sentence beginning on line 23 of page 1-1 is modified to read as follows: "Sampling and analysis identified in the DQO analysis related to meeting RCRA requirements are included as an integral part of this WAP."

III.6.B.a.2. Section 5.0, 242-A Evaporator Acceptance Criteria

Table 2, Page 5-4, Line 1, Change title to, "Candidate Feed Tank Limits for Vessel Vent Organic Discharge".

III.6.B.a.3. Section 5.0, 242-A Evaporator Acceptance Criteria

Table 3, Page 5-5, Add footnote "f" to title of the table and add footnote "f. This table is used to ensure process condensate generated from candidate feed tank treatment is within Liquid Effluent Retention Facility liner compatibility limits."

III.6.B.a.4. Section 6.1.2. Candidate Feed Tank Sampling Quality Assurance and Quality Control

Delete lines 5 through 6 on page 6-2 ("Trip blanks are analyzed for those constituents detected in the field blanks.") and replace with the following: "Trip blanks are analyzed as independent samples for volatile organics analysis."

III.6.B.a.5. Section 6.1.2. Candidate Feed Tank Sampling Quality Assurance and Quality Control

Delete the word "discrete" from line 18 on page 6-2 and insert the word "unique."

III.6.B.a.6. Section 6.1.3. Process Condensate Sample Collection

Append to lines 32 through 33 on page 6-2 ["Samples of process condensate are collected in a manner consistent with SW-846 procedures (EPA 1986)."] the following text: "...as documented in sampling procedures which are maintained and implemented by unit personnel."

III.6.B.a.7. Table 5. Analytes for Candidate Feed Tanks.

On page 6-4, delete the word "method" and insert the word "technique" in the heading of column 2.

III.6.B.a.8. Section 7.3 Laboratory Quality Assurance and Quality Control

In line 40, delete "matrix spike –" and in line 43, replace "accuracy" with "precision" and add a new sentence at the end of the paragraph, "Accuracy for DSC is evaluated by using the laboratory control standard."

III.6.B.a.9. Section 7.3 Laboratory Quality Assurance and Quality Control

Add a new paragraph. "The quality assurance/quality control program for sampling and analysis related to this unit must, at a minimum, comply with the applicable Hanford Site standard requirements and the regulatory requirements. All analytical data shall be defensible and shall be traceable to specific, related quality control samples and calibrations."

III.6.B.a.10. Table 7. Quality Assurance Objectives for Candidate Feed Tank Stream Analytes.

Delete the word "Objectives" from the title of the table and insert the word "Requirements."

III.6.B.a.11. Table 7. Quality Assurance Objectives for Candidate Feed Tank Stream Analytes.

In column 4, delete the words "matrix spike", so the heading reads as follows: "Precision (RPD between duplicates), %."

III.6.B.a.12. Table 7. Quality Assurance Objectives for Candidate Feed Tank Stream Analytes.

Delete Footnote 1 and replace with "Reserved".

III.6.B.a.13. Table 7. Quality Assurance Objectives for Candidate Feed Tank Stream Analytes.

In line 6, under "Accuracy" column, add "4" to table entry "N/A" and add to the end of footnote 4, "Accuracy for DSC is evaluated by using the laboratory control standard."

## CHAPTER 7

### **325 Hazardous Waste Treatment Units**

The 325 Hazardous Waste Treatment Units (HWTUs) consist of three units within the 325 Building, i.e., the Shielded Analytical Laboratory, the Hazardous Waste Treatment Unit, and the Collection/Loadout Station Tank. The units store and treat a variety of dangerous waste related to research and operations. This chapter sets forth the operating conditions for this TSD unit.

#### **III.7.A. COMPLIANCE WITH APPROVED PERMIT APPLICATION**

The Permittees shall comply with all requirements set forth in the *325 Hazardous Waste Treatment Units* Permit Application, as found in Attachment 37, including the amendments specified in Condition III.7.B. Enforceable portions of the application are listed below. All subsections, figures, and tables included in these portions are also enforceable unless stated otherwise:

Part A	Application
Chapter 2.0	Facility Description and General Provisions
Chapter 3.0	Waste Characteristics
Chapter 4.0	Process Information
Chapter 6.0	Procedures to Prevent Hazards
Chapter 7.0	Contingency Plan
Chapter 8.0	Personnel Training
Chapter 11.0	Closure and Financial Assurance
Chapter 12.0	Reporting and Record keeping
Chapter 13.0	Other Relevant Laws
Chapter 14.0	Part B Certification
Appendix 3A	325 HWTUs Waste Analysis Plan
Appendix 4A	Engineering Drawings
Appendix 7A	Building Emergency Plan for the 325 HWTUs
Appendix 8A	Training

III.7.B. AMENDMENTS TO THE APPROVED PERMIT APPLICATION

- III.7.B.a. Only treatment specifically identified in the enforceable portions of the application and these permit conditions may be performed at this TSD unit.
- III.7.B.b. Twenty months after inclusion in the Permit, this chapter shall be modified to reflect changes to waste streams shipped into and out from this unit, TSD unit operations, and the addition of a new storage tank.
- III.7.B.c. Within 30 days of the issuance of this Permit, the Permittee shall submit a topographic map delineating the maximum probable flood plain, i.e., 500-year flood plain.
- III.7.B.d. For all shipments of dangerous waste to or from this TSD unit, the Permittees shall comply with Conditions II.P. or II.Q. of this Permit regarding dangerous waste shipment manifesting and transportation, regardless of the volume of the shipment.
- III.7.B.e. The final design drawings and operable status of the proposed 325 Collection/Loadout Station Tank shall be submitted for Department approval at least 30 days before entering into a contract for installation or 120 days before the tank system begins operation.
- III.7.B.f. The Permittee must conduct integrity assessments over the life of the two tank systems in this TSD unit, to ensure that the tanks retain structural integrity per WAC 173-303-640. Integrity assessment records must be maintained in the Operating Record for this TSD unit. Within 30 days of completion of each assessment, data relating to each tank system shall be made available, upon request, to the Department for review
- III.7.B.g. Within 3 months of final installation of the new tank, the Permittee shall submit to Ecology a written integrity assessment which has been reviewed and certified by an independent, qualified registered professional engineer in accordance with WAC 173-303-810 (13)(a).
- III.7.B.h. The TSD unit shall comply with all applicable Subpart AA and BB requirements of the Air Emission Standards. The Permittee shall submit to the Department, a copy of the assessment performed to determine Subpart AA and BB are applicable.
- III.7.B.i. In response to the request in Chapter 11.0, Section 11.7, of Attachment 37, the Permittees are granted two years to close the TSD unit. This time period is necessitated by the high levels of radioactivity in the materials that are present, particularly in the six interconnected hot cells. Removal of waste inventory from the TSD unit is an activity of closure.
- III.7.B.j. Telephone number(s) for a point-of-contact at each of the three units of the HWTUs shall be provided in the Waste Analysis Plan (i.e., Unit Description) and provided to the Department within 30 days of the issuance of this Permit.
- III.7.B.k. Process knowledge and analytical data that are used for waste characterization, LDR determination, and/or treatment shall be documented and placed in the Operating Record.
- III.7.B.l. Shipments of waste shall not be accepted from any onsite generator without LDR information, if applicable, accompanying each shipment. The TSD unit staff shall obtain, from the onsite generator, the information necessary to determine the following: waste code, treatability group (i.e., wastewater versus non-wastewater), subcategory, treatment standard, identification of underlying hazardous constituents for certain characteristic waste, and whether the waste meets

the specified treatment standard(s). A member of the TSD unit staff may sign the LDR certification as a representative of the generator.

- III.7.B.m. Shipments of waste shall not be accepted from any offsite generator without LDR certification, if applicable, accompanying each shipment. For waste received from offsite generators, the TSD unit shall receive the information pursuant to 40 CFR 268 regarding Land Disposal Restricted wastes. The LDR certification must be signed by the generator.
- III.7.B.n. The quality assurance/quality control program for sampling and analysis related to this TSD unit must, at a minimum, comply with the applicable Hanford Site standard requirements and regulatory requirements. All analytical data shall be defensible and shall be traceable to specific, related quality control samples and calibrations.
- III.7.B.o. Within 30 days of the issuance of this Permit, the Permittees shall submit the following for review and approval by the Department: for each parameter, the respective accuracy, precision, and quantitation limit (or minimum detectable activity) necessary to meet the regulatory or decision limit. These data quality requirements shall be added to the Waste Analysis Plan and become enforceable conditions of the Permit. For determining the toxicity characteristics, SW-846 Method 1311 remains the required extraction method.
- III.7.B.p. For a given parameter, analytical methods are selected and may be modified as long as the applicable precision, accuracy, and quantitation limit (or minimum detectable activity) necessary to meet the regulatory or decision limit can be met or improved. (Note: the Permittee submission described in Condition III.7.B.o. will define these data quality requirements for this TSD unit.)
- III.7.B.q. Chapter 2.0, Page 2-1, line 14. This paragraph describes each unit within the HWTU. Add the following text: "The Collection/Loadout Station Tank will be located in the southeast corner of the basement of the 325 Building."
- III.7.B.r. Chapter 2.0, Page 2-5, line 41. Change Figure 2-3b, to read "Figure 2.3b".
- III.7.B.s. Chapter 2.0, Page 2-6, line 5. Replace "100-year flood plain" with the following: "500-year flood plain."
- III.7.B.t. APP 3A, page 4-7, Section 4.5.4, lines 37, 39, 45. Change each regulatory citation to read as follows: "40 CFR 268."
- III.7.B.u. APP 3A, page 4-7, line 41 - 42. Revise the text ("...as well as any waste-analyses data that support the generator's determinations.") to read as follows: "...as well as any other data, e.g., documented process knowledge and waste analysis data which support the generator's determinations."
- III.7.B.v. APP 3A, page 4-8, lines 5 - 12 and lines 22 - 28: Add a fifth bulleted item to read as follows: "identification of underlying hazardous constituents"
- III.7.B.w. App 3A, Page 4-8, line 31: Revise the text ("...signed by an authorized representative of 325 HWTUs...") to read as follows: "...signed by an authorized representative of the generator..."

## **Modifications to Part VI of the Permit**

## CHAPTER 2

### **183-H Solar Evaporation Basin**

The 183-H Solar Evaporation Basins (Basins) comprise an inactive Treatment Storage and Disposal (TSD) unit that is currently undergoing modified closure activities. This TSD unit was operated as an evaporation treatment unit for dangerous wastes. This Chapter sets forth the modified closure requirements for this TSD unit. The following enforceable portions of the *183-H Solar Evaporation Basins Postclosure Plan, Rev. 0* (Plan), found in Attachment 38 supersede the *183-H Solar Evaporation Basins Closure Plan/Post-Closure Plan*, found in Attachment 11 which was previously listed in Part V, Chapter 1.

#### VI. 2. A. COMPLIANCE WITH APPROVED CLOSURE PLAN

The requirements set forth in the *183-H Solar Evaporation Basins Closure Plan/Post-Closure Plan*, found in Attachment 11 have been superseded by the *183-H Solar Evaporation Basins Postclosure Plan, Rev. 0* (Plan), found in Attachment 38. Enforceable portions of the Plan are listed below; all subsections, figures, and tables included in these portions are also enforceable unless stated otherwise:

Part A, Form 3, Permit Application, Revision 4

#### Attachment 34. 183-H Solar Evaporation Basins Postclosure Plan, Rev. 0

Section 2.1	Modified Postclosure Institutional Controls
Section 2.2	Modified Postclosure Periodic Assessments
Section 3.0	Groundwater Monitoring During Postclosure
Section 3.1	WAC 173-303-645(11)(d) Monitoring Requirements
Section 3.1.1	WAC 173-303-645(3) Groundwater Protection Standard
Section 3.1.2	WAC 173-303-645(8) General Groundwater Monitoring requirements
Section 3.2	RCRA Corrective Action Groundwater Monitoring Schedule
Section 3.3	Groundwater Monitoring under CERCLA
Section 3.3.1	100-HR-3 Remedial Investigation Monitoring
Section 3.3.2	100-HR-3 Interim Remedial Measure Monitoring
Section 3.4	Inspection, Maintenance, and Replacement of Wells
Section 4.0	Corrective Action Plan
Section 4.1	Soil Column Corrective Action
Section 4.2	Groundwater Corrective Action
Section 4.3	Remediation Expectations During the IRM
Section 5.0	Personnel Training During Postclosure
Section 6.0	Security
Section 7.0	Closure Contact
Section 8.0	Certification of Postclosure

VI. 2. B. AMENDMENTS TO THE APPROVED POSTCLOSURE PLAN

VI. 2. B. a. The permittee will review the modified closure option in five years from the date of the Permit. The purpose of the review will be to determine if this TSD can be clean closed.

VI. 2. B. b. Groundwater Monitoring Plan for the 183-H Solar Evaporation Basins, PNNL-11573.  
The permittees shall comply with the above referenced document which details the final status groundwater monitoring program for the 183-H Solar Evaporation Basins.

**Class 3 Permit Modification  
Part V, Chapter 14**



47622

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

1115 W. 4th Avenue • Kennewick, Washington 99336-6018 • (509) 735-7581

August 12, 1997

Mr. James E. Rasmussen  
U.S. Department of Energy  
Richland Operations Office  
P.O. Box 550, MSIN: A5-15  
Dear Mr. Rasmussen:

Re: 303-K Storage Facility Closure Plan Revised Sampling and Analysis Plan (SAP)

The Department of Ecology (Ecology) has reviewed the 303-K Storage Facility SAP(HNF-SD-ENV-AP-005, revision 0, July 1997) and the Errata sheet transmitted on August 1, 1997. The SAP and Errata sheet will modify the 303-K Storage Facility Closure Plan (DOE-RL 1995a) incorporated into the Hanford Dangerous Waste Permit (Permit). The SAP and Errata sheet will supersede the SAP contained in the 1995a version of the closure plan.

Enclosed you will find Permit conditions which amend the SAP, as submitted. The SAP, Errata sheet, and the unit specific conditions will become enforceable provisions of the Permit. As requested, the existing Permit condition, V .14. B. f., will be modified to extend the time allowed for closure until September 30, 1998. The SAP will be included in the Permit as part of Modification C: the public comment period will begin in August 1997.

If you have any questions regarding this transmittal, please contact me at (509) 736-3019.

Sincerely,

Jeanne Wallace  
300 Area Project Manager  
Nuclear Waste Program

JW:skr  
Enclosures (Permit Conditions)

cc: Ellen Mattlin, USDOE  
Mark Hahn, USDOE  
David Einan, EPA  
Jason Adler, WMH  
John Remaize, BWHC  
Fred Ruck III, FDH  
Administrative Record: 303-K Alkali Metal Storage Facility  
Administrative Record: 300-FI-2 Operable Unit

V.14.B. AMENDMENTS TO THE APPROVED CLOSURE PLAN

V.14.B.f. The allowed time for closure is hereby extended in accordance with WAC 173-303-610(4)(b)(i). The Permittees shall submit a certification of closure for 303-K no later than September 30, 1998.

V.14.B.g. Compliance with the approved Sampling and Analysis Plan

The Permittees shall comply with all the requirements set forth in the "303-K Storage Facility Sampling and Analysis Plan", as found in Attachment 39, and the "Errata Sheet for the 303-K Storage Facility Sampling and Analysis Plan," as found in Attachment 40 including the amendments specified below. All subsections, figures, and tables included in the Sampling and Analysis Plan also are enforceable unless otherwise stated.

V. 14.B.g.1. Section 5.1 Cleanup Performance Standards for Soils

Insert the following after line 25 on page 5: "Using the Ecology publication, Model Toxics Control Act Cleanup Levels and Risk Calculations (CLARC II) Update. February 1996 (Publication #94-145, as updated 1/96), cleanup levels shall be identified for all constituents of concern. In addition, when a MTCA Method B value does not exist for a constituent, the cleanup level shall be obtained from the appropriate Method A table in WAC 173-340."

Delete Table 1 on page 6.

V.14.B.g.2. Section 7.4 Support for Ecology during Sampling

Delete lines 29 through 32 on page 16 ("Split samples of concrete and soil may be collected, if requested, for Ecology. If split samples for Ecology are collected as part of this sampling effort, then the...") and replace with the following: "Split samples of concrete and soil will be collected for Ecology from each sampling location. The..."

V.14.B.g.3. Field analytical quality control will include analytical duplicate(s) and verification of the method detection limit. Each field screening analytical duplicate sample will be collected from the same volume of sample material as the original field screening analytical sample. The frequency for these duplicates will be one per 20 samples or one per day of analysis, whichever is more stringent. The procedure used for the verification of the method detection limit is subject to approval by Ecology.

V.14.B.g.4. The laboratory quality control will be performed as described in the respective method, but will include the following: The frequency for analytical quality control will be one in 20 samples or one per analytical batch, whichever is more stringent, for duplicate and spike (or matrix spike) samples. Samples from this project must be chosen for the duplicate and spike (or matrix spike) samples. At least one method blank and one quality control check sample will be performed for each analytical batch.

V.14.B.g.5. Samples shall be placed immediately upon ice or refrigerated to  $4 \pm 2$  degrees Celsius after sampling and held at that temperature prior to and during shipping to the analytical laboratory.

V.14.B.g.6. Loss of any sample due to any cause may require resampling and/or reanalysis, at the discretion of the Department.

- V.14.B.g.7. The results of all analyses required by the Sampling and Analysis Plan as revised by these conditions shall be provided to the Department as stated in V.14.B.c. In addition to the items listed, these submittals shall include calibration and quality control data. A data evaluation report shall be submitted to the Department comparing the analytical results to the cleanup levels for the 303-K, derived as described in Condition V.14.B.g.1. For data to be useable for this comparison, the method quantification limit for the constituent must be equal to or less than the cleanup level, or the method detection limit must be at least ten times below the cleanup level, and the data package must be complete.
- V.14.B.h. If any analytical result for any sample specified in the Sampling and Analysis Plan exceeds the MTCA Method B cleanup level, then characterization of the lateral and vertical extent of the contamination shall be required and the Department shall pursue corrective action for this TSD unit.

**Ecology Letters for Completion of Review**



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

1315 W. 4th Avenue • Kennewick, Washington 99336-6018 • (509) 735-7581

August 13, 1997

Mr. James Rasmussen  
U.S. Department of Energy  
P.O. Box 550, MSIN: A5-15  
Richland, WA 99352

Dear Mr. Rasmussen:

Re: Review of the Low-Level Burial Ground Part B Permit Application

The Washington State Department of Ecology (Ecology) has reviewed the Hanford Facility Dangerous Waste Permit Application, Low-Level Burial Ground (LLBG), DOE/RL-88-20, Rev. 1, dated July 1997. Permit conditions are proposed, as attached, to make the application complete and acceptable to Ecology. Final approval of the Permit is pending public comment.

If you have any questions or concerns regarding this decision, please contact me at (509) 736-3048.

Sincerely,

A handwritten signature in black ink, appearing to read "NH", with a long horizontal line extending to the right.

Norman T. Hepner, PE  
Nuclear Waste Program

NH:rb

cc: Cliff Clark, USDOE  
William D. Adair, FDH  
Sue Price, FDH





STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

1315 W. 4th Avenue • Kennewick, Washington 99336-6018 • (509) 735-7581

August 14, 1997

Mr. James E. Rasmussen, Director  
U.S. Department of Energy  
P.O. Box 550, MSIN: A5-15  
Richland, WA 99352

Mr. William D. Adair, Director  
Fluor Daniel Hanford, Inc.  
242 Stevens Ctr., MSIN: H6-21  
Richland, WA 99352

Dear: Messrs. Rasmussen and Adair:

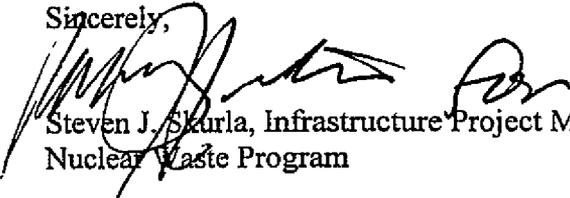
Re: 242-A Evaporator, Revision 1 Liquid Effluent Retention Facility (LERF)/Effluent Treatment Facility (ETF), Revision 0 Part B Permit Applications

The Washington State Department of Ecology (Ecology) has received the referenced Part B application. All comments have been closed-out or have been incorporated into Amendments to the Hanford Facility Dangerous Waste Portion of the Resource Conservation Act Permit for the Treatment, Storage, and Disposal of Dangerous Waste Permit. Final approval is pending Public Comment.

Ecology will move forward to include these Part B Permit Applications into the Site Wide Permit through Modification C.

If you have any questions, please contact me at (509) 736-3011 or Robert Julian at (509) 736-5702.

Sincerely,

  
Steven J. Skurla, Infrastructure Project Manager  
Nuclear Waste Program

SS:rb

cc: Elizabeth Bowers, USDOE                      Joe Coenberg, WMH  
Russell Jim, YIN                                      Dale Lindsey, WMH  
Donna Powaukee, Nez Perce Tribe              J.R. Wilkinson, CTUIR

47620



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

1315 W. 4th Avenue • Kennewick, Wash. 98501 • (509) 735-7581

August 14, 1997

Mr. James Rasmussen  
U.S. Department of Energy  
Richland Operations Office  
P.O. Box 550, MSIN: A5-15  
Richland, WA 99352

Dear Mr. Rasmussen:

Re: 325 Hazardous Waste Treatment Units Part B Permit Application, (M-20-20 or T-3-4)

The Washington State Department of Ecology has reviewed the 325 Hazardous Waste Treatment Units (HWTUs) Part B Application (DOE/RL-92-35, Revision 1, UC-630: dated July 1997) and determined it to be complete and accurate as required by Washington Administrative Code (WAC) 173-303.

Attached you will find permit conditions which amend portions of the Application and the Waste Analysis Plan as submitted. Unit specific conditions will become enforceable provisions of the permit. Revision 1 of the Permit Application with the attached Permit Conditions is accurate and complete in accordance with WAC 173-303, with final decision pending public review.

Ecology will include the HWTUs in the Dangerous Waste Portion of the Hanford Facility Permit through Modification C.

If you have any questions or concerns regarding the above, please contact me at (509) 736-3025.

Sincerely,

Greta P. Davis  
Nuclear Waste Program

GD:rb  
Enclosure

cc: Tony McKarnes, USDOE      Mike McCoy, PNNL  
David Crossley, PNNL      Harold Tilden, PNNL  
Wayne Larson, PNNL      Administrative Records: 325 HWTUs (T-3-4)  
Deloris Lutter, PNNL





47588

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

1315 W. 4th Avenue • Kennewick, Washington 99336-6018 • (509) 735-7581

July 30, 1997

Mr. Jeff Bruggeman  
U.S. Department of Energy  
P.O. Box 550, MSIN: H4-83  
Richland, WA 99352

Dear Mr. Bruggeman:

Re: Acceptance of the 183-H Solar Evaporation Basins Postclosure Plan,  
DOE/RL-97-48, Rev. 0

The Washington State Department of Ecology (Ecology) has completed its review of the 183-H Solar Evaporation Basins Postclosure Plan, Rev. 0. All of Ecology's comments have been answered or incorporated into Rev. 0 of the Postclosure Plan. Therefore, Ecology accepts the document as complete. Formal approval of the Postclosure Plan will not occur until after completion of the public review cycle and permit modification process.

If you have any questions regarding the Postclosure Plan or the Permit modification process, please contact me at (509) 736-3049.

Sincerely,

Wayne W. Soper, P.G.  
100 H Area Project Manager  
Nuclear Waste Program

WWS:skr

cc: Janet W. Badden, BHI  
Larry R. Miller, BHI  
Administrative Record: 183-H Solar Evaporation Basins, 100-HR-1 & 100-HR-3  
Operable Units

**Focus Sheet for 1997 Modification of Permit**