



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

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September 28, 2000

Mr. Keith A. Klein, Manager  
Richland Operations Office  
U.S. Department of Energy  
P.O. Box 550, MSIN: A7-50  
Richland, Washington 99352

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OCT 19 2000

EDMC

Dr. Harry L. Boston, Acting Manager  
Office of River Protection  
U.S. Department of Energy  
2440 Stevens Drive, MSIN: H6-60  
Richland, Washington 99352

Re: Submittal of the Interim Report on Hanford Site Land Disposal Restrictions (LDR)  
for Mixed Waste in Accordance with Milestone M-26-01J

Dear Mr. Klein and Dr. Boston:

This correspondence is in response to your letter and report, dated July 28, 2000, directed to Mr. Tom C. Fitzsimmons, Director of the Washington State Department of Ecology (Ecology), regarding the referenced subject. The 2000 LDR Report was submitted in accordance with Tri-Party Agreement (TPA) Milestone M-26-01J and the March 29, 2000, Final Determination regarding compliance with Land Disposal Restrictions, signed by Mr. Tom Fitzsimmons, Ecology, and Mr. Chuck Clark, U.S. Environmental Protection Agency (EPA). 53500  
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In accordance with Milestone M-26-01J, this report is to be submitted as a primary document. As such, TPA, Chapter 9, requires the lead regulatory agency to respond within forty-five (45) days. Ecology received the report on July 31, 2000. On September 13<sup>th</sup>, Ecology sent a letter to the U.S. Department of Energy (USDOE) extending the regulator's comment period by two (2) weeks and committing to a response by September 28, 2000. This letter satisfies Ecology's response to USDOE's submittal.

Ecology has reviewed the 2000 LDR Report and found it to be incomplete. Requirements detailed in the Final Determination and in Ecology's January 25, 2000, response to USDOE's request for clarification are not reflected in the 2000 LDR Report. Specific omissions and/or deficiencies are identified here in the enclosure. These requirements have been discussed at length with USDOE and its contractors over the past three (3) years. Ecology is displeased with the continuing lack of cooperation with regard to LDR compliance.

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The enclosed comments on the 2000 LDR Report were based on a comparison of the requirements against the information submitted, and includes pertinent sources of authority or references. Actions required by USDOE to satisfy 2000 LDR Report (primary document) requirements are also provided. The 2000 LDR Report contains excessive, redundant, and subjective information on which Ecology has not commented. The lack of comments on this information should not be construed as concurrence with the information.

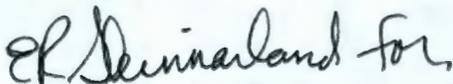
The 2001 LDR Report will be judged against all Final Determination elements. These elements are not to be reinterpreted; Ecology expects compliance with each element as written. Ecology has included comments with regard to proposed content of the 2001 LDR Report; however, these comments are merely examples and not to be considered as inclusive comments on the 2001 LDR Report.

To date, Ecology's efforts to achieve compliance with LDRs have not particularly focused on the Waste Minimization Plan requirements. A compliance assessment of these requirements will be conducted at a later date, but will not be part of Ecology's 2000 LDR Report review. Ecology is also conducting a detailed review of Waste Profile Sheets presented in the 2000 LDR Report. Specific comments on this review will be provided under separate cover and should be considered in preparing the 2001 LDR Report but will not result in a requirement to change the 2000 LDR Report Waste Profile Sheets.

Also, on June 14, 2000, Ecology forwarded a letter to USDOE entitled, "Revised LDR Final Determination crosswalk and associated principal issues." We are now in receipt of your recent response (00-ORL-079), and have initiated staff review.

If you would like to discuss these comments, please feel free to contact me at (509) 736-5715.

Sincerely,



Laura Ruud, RCRA Specialist  
Nuclear Waste Program

LR:sb  
Enclosure (1)

cc: Dave Bartus, EPA  
Doug Sherwood, EPA  
Cliff Clark, USDOE  
Mary Jarvis, USDOE  
Roger Landon, Bechtel  
Pamela Powell, CHG  
Tony Miskho, FH

Jim Rasmussen, ORP  
Harold Tilden, PNNL  
Mary Lou Blazek, OOE

**Administrative Record:** LDR 2000/M-26-01J

## Enclosure 1

### Washington State Department of Ecology's Comments on USDOE's 2000 LDR Report Milestone M-21-01J

Section IV.3.C. of the Final Determination requires the 2000 submittal to document known information (all categories) and detail actions taken by USDOE to fully comply with the requirements of this determination.

#### COMMENTS ON THE 2000 LDR REPORT

**The 2000 LDR Report does not accurately identify and describe, by quantity and physical location, all mixed waste stored at Hanford.** (Final Determination Section IV.3.A.1; Hanford LDR Plan, Section 1.a.)

*The 2001 LDR Report must identify the locations of all mixed waste at Hanford. Revision of the 2000 LDR Report is not being requested as this issue is being addressed through pending legal actions.*

- For the purposes of reporting the Hanford Site mixed waste inventory, USDOE limits the scope of reporting to only those mixed wastes located in permitted storage facilities onsite. The requirement is to identify *all* mixed waste, not just those in permitted storage, as defined in the Final Determination and in Ecology's January 25, 2000, response to USDOE's request for clarification. Ecology supplied specific clarification of this issue in its January 25, 2000, response to USDOE's request for clarification on the requirements of the 1990 Hanford LDR Plan and of measures necessary to meet Ecology's June 3, 1999, Notice of Correction.
- USDOE has limited the scope of reporting mixed waste to a five (5) year window. There is no five (5) year limitation on the reporting requirements in the 1990 Requirements for Hanford LDR Plan. Disregard the incorrect "5-year window" interpretation when identifying mixed waste at Hanford.
- Volume 3, page 1-6: USDOE states, "Waste streams are deleted from the report if the waste is being stored onsite solely to facilitate proper recovery, treatment, and disposal in accordance with 40 CFR 268.50." USDOE is required to report all mixed waste at Hanford, as defined in the Final Determination and in Ecology's January 25, 2000, response to USDOE's request for clarification.
- Volume 3, page 1-10: USDOE states, "Although TRUM waste is not subject to LDRs, TRUM is being reported in the interests of completeness." While wastes destined to WIPP are not required to meet LDR treatment requirements due to the approved RCRA No-migration Petition at WIPP, these wastes remain subject to LDR requirements (such as waste recordkeeping and reporting requirements) while stored on site, and must be accounted for in the annual LDR reports prepared under TPA Milestone M-26.
- Volume 1, page APP E-1: This table identifies an "example" list of generating unit waste streams for CY00, based on CY99 generation (to CWC only). If mixed waste was/is located at any generating location for greater than ninety (90) days, then the mixed waste at those locations need to be included in the storage report.

**The 2000 LDR Report does not provide adequate assessment of the compliance status of mixed waste storage methods pursuant to applicable state and federal standards.** (Final Determination, Section IV.3.A.2.; Hanford LDR Plan, Section 1.d.)

*In order to comply with this requirement, the 2000 LDR Report must be revised to identify and reference (by document number) any assessments completed during the 2000 LDR reporting period, and the schedule for performing assessments at all mixed waste locations at Hanford for the 2001 reporting period. Please also note that procedures submitted by way of USDOE's sixty (60) day notification must be revised to address the deficiencies noted below. Comments submitted below regarding the sixty (60) day notification submission here are in addition to comments on the 2000 LDR Report as a primary document.*

- The USDOE's sixty (60) day response does not meet the requirements of the Final Determination. Specific deficiencies were noted in Ecology's June 14, 2000, letter to Mr. George Sanders, "Revised LDR Final Determination crosswalk and associated principal issues." The deficiencies noted in Ecology's June 14<sup>th</sup> letter were not corrected in the 2000 LDR Report submittal. Specific examples include:
  - Procedures A&E 01 and ORPID 435.1 are ambiguous or deficient. For example:
    - The schedule information provided by USDOE-RL suggested that "up to five assessments on TSDs and one 90-Day Storage Pad or SAA may be performed per quarter." Schedule information was not provided by USDOE-ORP with the sixty (60) day response. The requirements do not stipulate that a subset of storage areas be assessed. In addition, assessments on ninety (90) day and satellite accumulation areas are not required provided that the mixed wastes accumulating in these areas will be moved to compliant TSD unit storage and accounted for in the following LDR Report (or sent off-site for treatment or disposal). Note: The 2000 LDR Report states that four (4) assessments are planned for each quarter, covering all sixteen (16) TSD units per year. However, this is deficient because of incorrectly limiting the assessments to only permitted or interim status TSD activities. Assessments of non-permitted storage areas are not addressed. *USDOE must provide specific schedules for the performance of assessments at each mixed waste storage location.*
    - The procedures require that personnel conducting the assessments have "appropriate skills," but do not identify what skills are required. *The procedure should be revised to identify appropriate skills.*
    - The procedures are not clear as to whom will lead the assessment (i.e., USDOE or contractor). The procedure should be revised to identify the assessment leader.
    - The procedures identify various methods for conducting reviews; however, do not define the criteria for selecting a particular method. *The procedure should be revised to identify the criteria for selecting a particular method.*
    - A process for clearly documenting the assessments and taking appropriate corrective action is crucial, yet not provided in these procedures (or the 2000 LDR Report). *The procedures should be revised to include documentation and corrective action requirements.*

- The Waste Profile Sheets in the 2000 LDR Report have been revised and reduced the amount of information required for assessment reporting. Changes in reporting format made on the 2000 Waste Profile Sheets should be reversed in the 2001 Waste Profile Sheets. Because of this lack of information, it is difficult for Ecology to assess compliance with this requirement.

**The 2000 LDR Report does not include, for each mixed waste identified, USDOE actions planned and taken to achieve and maintain full compliance with LDR and associated HFFACO requirements in effect (i.e., as of date of Annual Report issuance). (Final Determination, Section IV.3.B.c)**

*The 2001 LDR Report must report, for each mixed waste identified, USDOE actions planned and taken to achieve and maintain full compliance with LDR and associated HFFACO requirements, in accordance with the Final Determination.*

**The 2000 LDR Report does not include, for each waste stream specific report, a statement by USDOE documenting whether or not "DOE has completed sufficient work to allow for continued compliance as it progresses to meet HFFACO major and interim milestone requirements." (Final Determination, Section IV.3.B.c)**

*The 2001 LDR Report must include, for each waste stream specific report, a statement documenting whether or not "DOE has completed sufficient work to allow for continued compliance as it progresses to meet HFFACO major and interim milestone requirements," in accordance with the Final Determination.*

**The cover page of USDOE's LDR Report did not contain the primary document statement or signature blocks as required by the Final Determination, Section IV.3.B.f. (Final Determination, Section IV.3.B.f)**

*In order to comply with this requirement, the 2000 LDR Report must be revised to contain the primary document statement and signature blocks, as required in the Final Determination, Section IV.3.B.f.*

## COMMENTS ON THE PROPOSED 2001 LDR REPORT

**USDOE must provide adequate waste characterization plan information on all mixed waste streams.** (Final Determination, Section IV.3.A.3.; Hanford LDR Plan, Section 3)

- Ecology recognizes that the Final Determination requires an updated characterization plan beginning with the 2001 Report. Although the comments below are derived from the 2000 Report, they are intended to promote foresight into the development of the 2001 Report.
- It is Ecology's understanding that waste generated under the post-Waste Specification System (WSS) does not need additional characterization to facilitate treatment. For pre-WSS waste, USDOE must consider the requirement to identify the basis and assumptions used in forming the Treatment Report given that characterization is not being scheduled until one year prior to treatment.
- A clear path forward is needed, including schedules and milestones for completing the steps to characterize, store, treat (as necessary), and dispose of TRUM waste until final certification for disposal at WIPP has been received for each waste stream. The 2000 LDR Report is contradictory with regard to TRUM certification and disposal at WIPP. For example, in Volume 3, page 1-10, USDOE states, "Certification has been received to ship both TRUM and non-mixed TRU waste to WIPP." Yet, in Volume 3, page 4-30, USDOE indicates that the site-specific and waste-specific certification documents have not been written.
- Volume 3, Table 2-4: USDOE states that no further characterization for designation and storage under LDR is required for DST and SST waste. This statement is of concern to Ecology in light of the outstanding TWRS Regulatory DQO that USDOE, contractors, and Ecology prepared, and which identifies deficiencies in meeting LDR requirements for storage, treatment, and eventual disposal. In Volume 3, Section 4.3.3.6, USDOE states, "Sampling and analysis of the DST System waste is under way and will continue based on the priorities determined using systems engineering." Ecology expects that the sampling and analysis agreements reached in the Regulatory DQO be adhered to.
- The LDR Plan requires a Waste Characterization Plan that includes the steps necessary to confirm which wastes and which waste streams are subject to the LDR. USDOE is limiting its reporting to only those wastes that it believes are subject to the LDR, and is not including the steps taken to confirm such determinations. For example, the 2001 LDR Report needs to identify steps are taken to determine if CERCLA mixed wastes are subject to the LDR.

**Many of the proposed changes to the 2001 Waste Profile Sheets are unacceptable.**

- After Ecology's 1997 Technical Assistance visit, Ecology, USDOE, and its contractors redesigned the Waste Profile Sheets to include most of the information required to satisfy the Hanford LDR Plan and associated TPA milestones. A minimal amount of information needs to be provided in the text of the report. Many of the proposed changes distort the requirements and impede the reporting and review process.

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- Ecology supports embellishing the existing Waste Profile Sheets to increase specificity, move text from the report into the sheet, and add assessment detail. Ecology requests USDOE work together with Ecology to agree on acceptable changes to the sheets prior to USDOE's issuance of the 2001 report.
- Volume 1, Sections 5.1.2 and 5.1.3 USDOE references a roll-up table showing the grouping of the waste streams into treatment campaigns/groups. Ecology suggests that this table be shared with Ecology in advance of the 2001 report.
- The Waste Profile Sheets presented in the Storage Report should be grouped based on the current location of the mixed wastes.