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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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November 16, 1999

Mr. Steve Wisness
United States Department of Energy
P.O. Box 550, MSIN: A5-18
Richland, Washington 99352



Dear Mr. Wisness:

Re: Notice of Correction Resulting from the 1998 Land Disposal Restrictions (LDR)
Compliance Inspection at Hanford (TPA Milestone M-26-01H), dated June 3, 1999

On June 3, 1999, the Washington State Department of Ecology (Ecology) issued a Notice of Correction (NOC) to the United States Department of Energy (USDOE), Fluor Daniel Hanford Inc. (FDH), and Waste Management Hanford Inc. (WMH), as a result of Ecology's 1998 Land Disposal Restriction Compliance Inspection at Hanford.

Since issuance of that letter, I have received the following new information that changes the content of Violation #4:

- ✓ A generator does not have to obtain constituent concentration information if they assume the waste to be dangerous waste and send it for treatment. The generator does, however, have to have adequate, documented process knowledge that justifies the designation (WAC 173-303-070(3)(c)(ii)). Also the generator may need to provide accurate constituent information to the treatment, storage, or disposal facility (TSD) in order to meet acceptance criteria or waste analysis criteria (WAC 173-303-300).

Ecology was also asked to respond to the following questions and concerns. Ecology's responses follow:

- The question was raised as to whether a generator is required to identify subdivisions made within a waste code when the primary category itself is not used. For example, D006 waste has two entries under the column "Waste description and treatment/regulatory subcategory." (There are actually three subdivisions for D006—the other falls under the waste description for radioactive high level wastes.) The first entry does not contain the word "subcategory" in its description; the second entry does.



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When you look in the table at 40 CFR 268.40 under the column titled "*Waste description and treatment/regulatory subcategory*" it does not matter if the word "subcategory" is absent in the description of a waste code. If the word "subcategory" is absent, it is still a subcategory. Better yet, it is referred to as a "subdivision" of the waste code. Under 40 CFR 268.7(a)(2), the generator's notification to the TSD must include the notice information in column "268.7(a)(2)" in the table titled "*Generator Paperwork Requirements Table*," which is found in 268.7(a)(4). Item #4 of the Generator Paperwork Requirements Table requires that the generator notice must include . . . subdivisions made within a waste code based on waste-specific criteria. When treatment standards are referenced on the notification, the subdivision made within the waste code must be identified.

- For clarification, the statement made in Violation #4, Container #9403139, "Line 6a of the form should include D003 with the list of codes requiring the generator to check for Underlying Hazardous Constituents" has been removed. This statement was intended to be an informational statement and not a violation of testing, tracking, and recordkeeping requirements.
- The question was raised as to the proper designation of a waste that was found by someone who had discovered waste generated by another party, i.e., the original generator was unknown. Specifically, an acid waste was found at the Plutonium Finishing Plant that had been previously absorbed in diatomaceous earth. The waste was designated with a WSC2 waste code (State-only solid corrosive) since it was in a solid form when discovered. Waste codes for designation are determined at the point of generation, not after being divided, diluted, or in this case, after a liquid corrosive had been absorbed. Therefore, the proper waste code applicable to this waste would be D002.

To reflect the above information, I have corrected Violation #4 to read as follows:

Violation #4: Testing, Tracking, and Recordkeeping Requirements for Generators, Treaters, and Disposal Facilities (40 CFR Part 268.7)

40 CFR 268.7 requires a generator to determine if their waste has to be treated before it can be land disposed, and to retain all data used to make the determination. Ecology reviewed seven (7) Operating Record files; six (6) out of seven (7) had deficiencies associated with determination of Underlying Hazardous Constituents (UHCs), assignment of subcategories, and retaining supporting data in the generator's files.

USDOE failed to properly complete LDR testing, tracking, and recordkeeping requirements for six (6) out of seven (7) container files reviewed.

Container #225B-98-000006 – T Tank

- *On the Land Disposal Notification and Certification form used for container #225B-98-000006 (T Tank), space #6a was checked stating "Underlying Hazardous Constituent Determination not Applicable." However, the T Tank designation indicates the presence of characteristic waste (D002); therefore, generators must determine the UHCs that are reasonably expected to be present in the waste (unless a container is being managed as a labpack in accordance with the requirements of 40 CFR 268.42[c]).*

Container #9403139 – Tank Farms

- *On the Land Disposal Notification and Certification for container #9403139, the description of subdivisions (subcategory) is not complete for D006 and D008 waste codes. ~~Line 6a of the form should include D003 with the list of codes requiring the generator to check for Underlying Hazardous Constituents.~~ On the Land Disposal Notification and Certification form for container #9403139, Line 6a and line 6b were not completed, indicating the generator did not check for the presence of UHCs.*

Container #9521493 – Plutonium Finishing Plant (PFP)

- *~~The generator records for container #9521493 did not contain adequate supporting data to make the determination regarding the concentration of silver (D011) in the waste. The generator records report a D011 concentration of 100 ppm (equivalent to approximately 100 mg/kg). However, no indication is given of how this concentration was determined. (Analyses from Paragon Laboratories resulted in silver at 1,330 mg/kg. Analysis from WSCF resulted in silver at 5,700 mg/kg.)~~*
- *The generator records for container #9521493 did not include the proper waste code for corrosivity. Specifically, the Washington Solid Corrosive Code WSC2 was used. Waste codes from designation are determined at the point of generation, not after being divided or diluted, or in this case, after a liquid corrosive is absorbed in diatomaceous earth. The proper waste code of D002 was not assigned.*

Container #9601762 – Bechtel Hanford Inc. (BHI)

- *~~The generator records for container #9601762 did not contain adequate supporting data to make the determination regarding the concentrations of contaminants in the waste. Criteria for designation appears to have been based on a weight percent calculation; however, this file does not contain information on how weight percent values were determined. WMH staff stated the designation was based on process knowledge gained from review of written analytical procedures that generated the waste and the specific constituent quantities were derived from these procedures. The container file did not contain any reference to such written analytical procedures. (NOTE: The waste in this container had been designated with~~*

the following waste codes: D002, D004, D006, D007, D008, D009, D010, D011. The analyses from WSCF resulted in $pH < 1$ for the three (3) sample sets representing the contents of this waste container. No constituent was found that exceeded regulatory designation or UHC limits.)

- *On the Land Disposal Notification and Certification form for container #9601762, the description of subdivisions (subcategory) is not complete for D006, D008, and D009 waste codes.*

Container #9700906 – 222-S Laboratory

- *The Land Disposal Notification and Certification Form for container #9700906 includes the waste codes D036 and U169. The form states that the generator had reviewed the Universal Treatment Standards (UTS) list and determined UHCs are present in the waste. This determination was based on the generator's knowledge of the waste and analysis. The generator identified nitrobenzene as a UHC; but nitrobenzene is not the underlying hazardous constituent, it is the primary hazardous constituent. Also, the generator assigned the waste code of U169; however, this waste is not a discarded chemical product. The waste was identified as "contaminated rad liquid waste" in the generator file. Also, an independent laboratory analysis (from Paragon Laboratories) revealed the presence of lead (.38 mg/kg) in the sample. Further, the file does not contain adequate process knowledge to determine if the nitrobenzene was used for its solvent properties, in which case the F004 code would be applied to the waste.*

Container #9800899 – Pacific Northwest National Laboratory (PNNL)

- ~~*The generator records for container #9800899 did not contain adequate supporting data to determine the concentrations or presence of contaminants in the waste. Criteria for designation appears to have been based on a weight percent calculation; however, this file does not contain information on how this weight percent was determined. Also, the waste was assigned the waste code D030 indicating the presence of 2,4 Dinitrotoluene; however, this contaminant does not appear on any of the associated paperwork for the waste. (NOTE: The presence/absence of 2,4 Dinitrotoluene is particularly important due to its potential for explosion when heated.) Further, the file does not contain the proper information for assessing the dangerous waste criteria for toxicity.*~~
- *The Land Disposal Notification and Certification Form for container #9800899 includes waste codes D002, D011, and D030 (the codes associated with the samples analyzed from the two [2] inner containers chosen for this inspection). The form also includes the code D006, associated with another inner container. The description of subdivisions (subcategory) is not complete for D006. In addition, the analysis from WSCF for inner container #3908 indicates that 2,4 Dinitrophenol, o-Nitrophenol, and Chloroform levels exceed the regulatory limits for UHCs; however, these constituents did not appear on the*

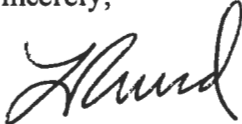
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generator's UHC paperwork for this container. WSCF analysis also found acetone and methylene chloride levels that exceed regulatory limits for UHCs. These constituents were identified on the UHC paperwork for the drum, but were attached to waste with F001 and F002 codes assigned to different inner containers.

As detailed in the Mutual Agreement and Extension Regarding Milestone M-26-01, dated October 26, 1999, the corrective measures for Violation #4, as detailed in the June 3, 1999, Notice of Correction, must be completed by February 8, 2000.

If you have any questions regarding this letter, please contact me at (509) 736-5715.

Sincerely,



Laura Ruud
Permitting Specialist
Nuclear Waste Program

cc: Doug Sherwood, EPA
George Sanders, USDOE
Jim Rasmussen, USDOE
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