

1223207



Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

14-ESQ-0040
REISSUE

FEB 14 2014

Ms. J. A. Hedges, Program Manager
Nuclear Waste Program
State of Washington
Department of Ecology
3100 Port of Benton Boulevard
Richland, Washington 99354

Dear Ms. Hedges:

REISSUE – RESPONSE TO STATE OF WASHINGTON, DEPARTMENT OF ECOLOGY (ECOLOGY) DANGEROUS WASTE NON-FINANCIAL RECORDS REVIEW (NRR) OF HANFORD TRANSPORTATION

The purpose of this reissue is to correct the enclosure list. Between January 31, 2013, and July 8, 2013, Ecology performed a NRR inspection of waste designation and transportation related to a March 23, 2012, shipment of mixed waste from the Hanford facility to PermaFix Northwest. The State of Washington, Department of Ecology's report of the inspection was transmitted with the letter, K. A. Conaway, Ecology, to M. S. McCormick, RL, "Dangerous Waste Non-Financial Records Review (NRR) of Hanford Transportation at United States Department of Energy (USDOE) Hanford Facility Resource Conservation and Recovery Act site ID: WA7890008967, Nuclear Waste Program (NWP) Index 12.382," dated November 21, 2013. The enclosure provides the Richland Operations Office response to the issues identified in the inspection report.

If you have any questions, please contact me, or your staff may contact Stacy L. Charboneau, Assistant Manager for Safety and Environment, on (509) 373-3841.

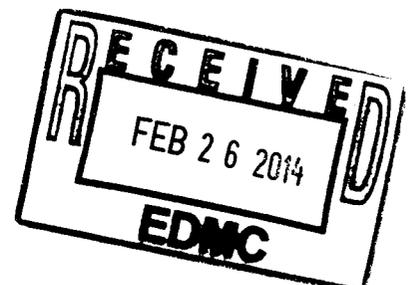
Sincerely,


Mary McCormick
Manager

ESQ:ACM

Enclosure

cc: See Page 2



Ms. J. A. Hedges
14-ESQ-0040
REISSUE

-2-

FEB 14 2014

cc w/encl:

Ecology NWP Library (Hardcopy)
Environmental Portal, LMSI, A3-95
Administrative Record, TSD: TS-2-4
HF Operating Record (J. K. Perry, MSA, H7-28)

cc w/o encl:

F. W. Bond, Ecology
K. A. Conaway, Ecology
S. L. Dahl-Crumpler, Ecology
B. J. Dixon, CHPRC
L. L. Fritz, MSA
M. N. Jaraysi, CHPRC
A. L. Prignano, Ecology
J. B. Price, Ecology
J. R. Seaver, CHPRC
E. R. Skinnarland, Ecology

Enclosure 1

Response to the issues identified in Ecology's report of the Non-Financial Records Review

Washington Department of Ecology's (WDOE) Issue 1:

The following alleged Area of Non-Compliance was cited in the report:

“WAC 173-303-630(4), referenced by WAC 173-303-400(3)(a)(ii): Compatibility of waste with containers. The owner or operator must use a container lined with materials which will not react with, or are otherwise compatible with, the dangerous waste to be stored, so that the ability of the container to contain the waste is not impaired.”

“Nitric acid was placed into a steel over pack drum by USDOE contractors. The over pack drum was not made of stainless steel. Stainless steel drums were not included for package specification testing in Attachment D Container CoC in Retrieval Special Packaging Authorization R-SPA Shipment Evaluation Checklist number R-SPA SWOC-2011-006, RP-Acids, Rev.0 (R-SPA), dated March 6, 2012.”

“Action Required: Waste nitric acid must be packaged in compatible containers (e.g., stainless steel drums) that meet the packaging specifications in WAC 173-303-190.”

Permittee Response to Issue 1:

The U.S. Department of Energy (DOE) disagrees with the alleged Area of Non-Compliance identified by WDOE. Nevertheless, the required action was completed with the treatment and repackaging of the waste. The three drums cited in the compliance report for the Non-Financial Records Review (NRR) inspection were shipped from CWC-WRAP on March 22, 2012, and received by Perma-Fix Northwest (PFNW) on March 23, 2012. PFWN opened each package, inventoried the waste, performed field screening analysis on the waste, neutralized the acidic waste portions, and packaged the neutralized waste into 2-liter poly bottles that were closed, and then placed in to a U. S. Department of Transportation (DOT)-7A steel drum and returned back to Hanford on May 31, 2012 (ref: shipments TR1203 and TR1204).

Per Title 49 Code of Federal Regulations (CFR) Part 173.2a, Class 7, radioactive material, is the primary hazard associated these shipments. The subsidiary hazard is corrosive material (based on process knowledge considered as nitric acid). To determine the packaging requirements for Class 7 materials, DOT requires that 49 CFR Subpart I be used (i.e., §173.401 through §173.477). In §173.410(g), it does require that packages containing Class 7 material be constructed with materials that are physically and chemically compatible with each other and the package contents. Because of the subsidiary hazard, the 85-gallon drum was placed inside a 110-gallon drum with neutralizing absorbents. Based on 49 CFR Subpart E, §173.158 is only applicable when nitric acid is the primary hazard. DOT regulations do not state packaging requirements for subsidiary hazards. Therefore, given the primary hazard is Class 7, Ecology is incorrect in asserting these shipments must be packaged and shipped inside stainless steel containers. In accordance with WAC 173-303-190 packaging must meet the DOT requirements prior to shipping. As discussed above, the packaging for the associated March 23, 2012 shipment met DOT requirements given the primary and subsidiary hazards.

To meet the packaging objectives for waste shipments TC090 and TC091, a payload specific Hanford Site TSD SPA shipment authorization was developed by CH2M HILL Plateau

Remediation Company and approved by DOE. Specifically, the shipping requirements were documented in Shipment Evaluation Checklist (SEC) R-SPA-SWOC-2011-006, R0, and "RP - Acids". Per the SEC, the waste containers were required to meet the following requirements:

- Packaged into a DOT Type 7A container;
- Have a minimum of one (1) confinement barrier;
- Contain sufficient acid neutralizing absorbent to absorb twice the amount of liquid present in the packages.
- Shipped within 15 days from the time the 85 packages were placed inside of 110 packaging.

To achieve these requirements, the packages were prepared as follows:

- Over packs 036493-7 and 036493-9 (from Low Level Burial Ground 218-4B and 218-12B respectively):

On March 19, 2012, the two 110-gallon packages were inspected just prior to loading to confirm there were no signs of breach, thus qualifying it as the confinement barrier under the R-5 SPA. The two (2) packages were secured inside an 8'x4'x4' DOT Type-A reusable shipping container that was prepared by placement of acid neutralizing pads covering the floor of shipping container (ref: PIN 0070415). This package was assigned shipping number TC090 and shipped by road-closure to PFNW on March 22, 2012, along with shipment TC091.

- Over pack 0059303 (2404-WB drum):

On March 12, 2012, this 85-gallon package was inspected just prior to loading to confirm there were no signs of breach, thus qualifying it as the confinement barrier under the R-5 SPA. The 85-gallon package was then placed inside a 110-gallon DOT Type-A high-performance lined steel container that was prepared by placement of acid neutralizing pads covering the bottom of the 110-gallon (ref: PIN 0087946) package. This package was assigned shipping number TC091 and shipped by road-closure to PFNW on March 22, 2012, along with shipment TC090.

Ecology's Issue 2:

The inspection report cited the following Concern:

“The ‘rolling road block’ function procedures may not conform to the terms of the exemption from transportation in commerce as explained in the Denny Letter and in 40 CFR part 171.1(d)(4). WDOE recommends that DOE re-evaluate its transportation requirements for transportation of radioactive mixed waste and hazardous materials between the DOE-Hanford Facility and PFNW. At the July 3, 2013, meeting between Ecology and DOE, the DOE deputy manager (Doug Shoop) indicated that DOE had already started a review of these transportation practices.”

Permittee Response to Issue 2:

DOE is working with the Washington State Patrol (WSP), the agency designated by state law to implement HMTA regulations under DOT authorization. DOE has completed the review of the transportation requirements and would appreciate the opportunity to brief WDOE with the results.