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

04-OD-0025

MAY 5 2004

Mr. Michael A. Wilson, Manager
Nuclear Waste Program
State of Washington
Department of Ecology
1315 West Fourth Avenue, MSIN B5-18
Kennewick, Washington 99336-6018

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EDMC

Dear Mr. Wilson:

15-DAY REPORT TO STATE OF WASHINGTON DEPARTMENT OF ECOLOGY
CONCERNING CAUSTIC SPILL AT 325 HAZARDOUS WASTE TREATMENT UNITS

The Hanford Resource Conservation and Recovery Act Permit, Condition II.A.1, and Washington Administrative Code 173-303-360(2)(k) require that a report be filed with the State of Washington Department of Ecology (Ecology) within fifteen (15) days of any incident that requires implementation of the contingency plan at a treatment, storage, or disposal facility. The caustic spill that took place at the 325 Hazardous Waste Treatment Units on April 15, 2004, required actions that constitute an implementation of the contingency plan. A 15-day report is attached that meets the requirements for such reports.

If you have questions or need further information, please contact Theresa Aldridge, Pacific Northwest Site Office Operations Division, on (509) 372-4508.

Sincerely,

A handwritten signature in black ink, appearing to read "Keith A. Klein".

For Keith A. Klein
Manager

OD:TLA

Enclosure

cc w/encl:

Administrative Record:

325 Hazardous Waste Treatment Units, T-3-4

M. Y. Anderson-Moore, Ecology

Environmental Portal, LMSI

R. D. Enge, PNNL

S. Harris, CTUIR

F. C. Jamison, Ecology

R. Jim, YN

P. Sobotta, NPT

**15-DAY REPORT FOR IMPLEMENTATION OF THE HANFORD SITE
RESOURCE CONSERVATION AND RECOVERY ACT CONTINGENCY PLAN**

The following 15-day report is prepared in compliance with Washington Administrative Code (WAC), Chapter 173-303-360(2)(k).

(i) Name, address, and telephone number of the owner or operator

U.S. Department of Energy
P.O. Box 550
Richland, Washington 99352
Telephone: (509) 376-7395

(ii) Name, address, and telephone number of the facility

Hanford Facility, 325 Building (Radiochemical Processing Laboratory)
P.O. Box 550
Richland, Washington 99352
Telephone: (509) 376-7395

(iii) Date, time, and type of incident (e.g., fire, explosion):

On Thursday, April 15, 2004 at approximately 1:30 PM, four Pacific Northwest National Laboratory (PNNL) Radioactive Waste Operations (RWO) staff were transferring a caustic solution from a small accumulation container into a larger (bulk) drum using a peristaltic pump in a fume hood in a laboratory (Room 520) in the RPL. During the transfer operation, the plastic tubing attached to the pump ruptured, causing some of the solution to spray into the room. Two of the four staff members came into contact with the solution.

The cause of the spill is still under investigation. RWO staff shut down the equipment and notified the Pacific Northwest emergency number (375-2400). They then applied sorbent to the spilled liquid. The exposed staff members washed off the caustic solution. The Hanford Fire Department responded to the incident and transported the staff members that had been exposed to Kadlec Hospital for observation. The building was not evacuated and other activities in the facility were not affected.

The incident met all three of the criteria given in the Hanford Emergency Management Plan, Section 4.2, and thus is considered an "activation" of the RCRA contingency plan requiring reporting pursuant to Washington Administrative Code 173-303-360.

(iv) Name and quantity of material(s) involved:

The solution was a tank waste simulant material consisting of a concentrated sodium hydroxide solution containing nitrate ion and a small amount of cesium-137 (1 mR dose rate.) Approximately 8 liters of solution were being transferred. The estimated quantity released from the leak is 500 milliliters. No release to the environment resulted from this incident.

(v) The extent of injuries, if any:

The RWO staff that were exposed were transported to Kadlec Hospital for observation and were released, returning to work the next day. A survey of the RWO staff found no personal radiological contamination.

(vi) An assessment of actual or potential hazards to human health or the environment, where this is applicable:

A recovery plan was developed as required by Hanford Emergency Procedures. Radiological surveys in Room 520 confirmed no spread of contamination from the incident to the surrounding area. Ecology will be notified prior to resuming normal operations as required by WAC 173-303-360(2)(j).

(vii) Estimated quantity and disposition of recovered material that resulted from the incident:

Approximately 75 liters (20 gallons) of spill pillows, towels, and other absorbent material was generated from the cleanup. This material has been bagged and drummed and is being managed as a mixed waste in the 325 HWTUs. It will be treated and disposed of at a permitted facility.

(viii) Cause of the incident:

Clearly, the direct cause of the incident was the ruptured plastic transfer hose. The root cause of this failure is still under investigation.

(ix) Description of corrective action taken to prevent reoccurrence of the incident:

An internal investigation was commissioned on April 15 to review the incident. After the investigation of the cause(s) for the incident, corrective actions will be identified and tracked through the DOE occurrence reporting system. This system requires PNNL to determine causes and corrective actions within 45 days of the event. Therefore, details on the incident cause(s) and corrective action(s) will be available from Theresa Aldridge, Pacific Northwest Site Office, Operations Division, after June 1, 2004.

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