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Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352
NOV 21 2005

06-AMRC-0042

Mr. Michael A. Wilson, Program Manager
Nuclear Waste Program
State of Washington
Department of Ecology
3100 Port of Benton Blvd.
Richland, Washington 99354

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EDMC

Dear Mr. Wilson:

**RESOURCE CONSERVATION AND RECOVERY ACT IMPLEMENTATION OF THE
CONTINGENCY PLAN 15-DAY REPORT FOR THE NOVEMBER 6, 2005, EVENT**

On November 6, 2005, the U.S. Department of Energy, Richland Operations Office provided notification to the State of Washington Department of Ecology of an event that implemented the Resource Conservation and Recovery Act of 1976 contingency plan at the Hanford facility. This letter transmits the follow-up 15-day report required by Washington Administrative Code 173-303-360(2)(k). The enclosure provides the information required in the 15-day report.

If you have questions, please contact me or your staff may contact Dave Evans, Acting Assistant Manager for the River Corridor, on (509) 373-9278.

Sincerely,

Keith A. Klein
Manager

AMRC:DHC

Enclosure

cc: G. Bohnee, NPT
R. W. Bond, Ecology
S. V. Doebler, FHI
M. E. Eby, FHI
L. L. Fritz, FHI
S. Harris, CTUIR
R. Jim, YN
A. G. Miskho, FHI
K. Niles, ODOE
Administrative Record, H6-08
Environmental Portal

15-DAY REPORT FOR THE IMPLEMENTATION OF THE CONTINGENCY PLAN AT THE
HANFORD FACILITY

The following 15-day report meets the reporting requirements of the State of Washington Department of Ecology Dangerous Waste Regulations WAC 173-303-360(2)(k).

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

Owner/Operator

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

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

400 Area Fast Flux Test Facility
Hanford Facility
EPA/State ID # WA7890008967
P.O. Box 550
Richland, Washington 99352
(509) 376-0604

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

On November 6, 2005, at 1717 an Alert was declared at the Fast Flux Test Facility (FFTF) due to the violent reaction from an unanticipated sodium-potassium alloy (NaK)-water reaction. During the preparation for using an argon-steam process to react the non-radioactive residual NaK, (liquid metal), at the Fuel Storage Facility, an unanticipated NaK-water reaction occurred. An argon purge of the piping system to be cleaned had been started. During this purge, NaK appears to have been introduced into the scrubber unit associated with the cleaning station, resulting in a violent reaction. The reaction was culminated by two loud pops and a very brief fire flash at the scrubber unit exhaust stack. The reaction resulted in smoke and steam being released to the atmosphere and into room 912, adjacent to the scrubber unit, causing the activation of the fire alarm associated with room 912. At no time was fire noted anywhere other than the scrubber exhaust stack. No personnel were injured as a result of this event. The area was evacuated of personnel, a Take Cover was initiated at the FFTF, and an Alert was declared. Utilizing facility procedure and the site emergency plan, the event was evaluated (no equipment damage was noted during this evolution), the facility and systems were stabilized, and the event was terminated at 0158 on November 7, 2005.

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

A very small amount of NaK and water were involved in this event.

(v) The extent of injuries, if any:

There were no injuries.

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

The potential hazards included hazardous chemicals. No exposure to hazardous materials was evident; the personnel in the area where the incident occurred have been evaluated at Advanced Medical Hanford. No issues were identified.

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

The actual quantity is difficult to estimate. However, we believe the quantity to be very small because only a ½ pound per square inch gauge (psig) pressure pulse was recorded in the system and the relief protection set at 15 psig did not activate. Unexpected smoke resulting from the reaction dissipated quickly. There were no materials to clean up or recover as a result of this incident.

(viii) Cause of incident:

The flash of fire was the result of the hydrogen, produced by the NaK-water reaction, burning when it came in contact with the air.

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

FFTF has formed a Recovery Team. This team will develop a course of action to prevent reoccurrence of this type or similar incidents.