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Department of Energy
Carlsbad Field Office
P. O. Box 3090
Carlsbad, New Mexico 88221

MAY 13 2015

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NMED
Hazardous Waste Bureau

Mr. John E. Kieling, Bureau Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87508-6303

Ms. Kathryn Roberts, Division Director
Resource Protection Division
Harold Runnels Building
1190 Saint Francis Drive, Room 4050
Santa Fe, NM 87502-5469

Subject: Fourth Supplement to the Report of Implementation of the Waste Isolation Pilot Plant Facility Resource Conservation and Recovery Act Contingency Plan on April 11, 2014

Dear Mr. Kieling and Ms. Roberts:

On April 11, 2014, the Department of Energy (DOE) Carlsbad Field Office (CBFO) and Nuclear Waste Partnership LLC (NWP), Co-Permittees of Hazardous Waste Facility Permit (NM4890139088-TSDF), implemented the Resource Conservation and Recovery Act (RCRA) Contingency Plan (Plan) and filed a report with the New Mexico Environment Department (NMED) on April 28, 2014, documenting implementation of the Plan. The Permittees then provided updated information in three Supplements to the Report of Implementation of the Waste Isolation Pilot Plant Facility Resource Conservation and Recovery Act Contingency Plan on April 11, 2014. These supplements were provided to the NMED on July 7, 2014, August 18, 2014, and on March 23, 2015. Implementation of the Plan was in anticipation of investigation of the source of a radiological release from the facility that occurred on February 14, 2014.

The purpose of this letter is to provide the NMED with the additional supplemental information collected since the report was filed. This information has been obtained as a result of the continuing investigations into the cause of the February 14, 2014, radiological event.

We certify under penalty of law that this document and all attachments were prepared under our direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on our inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of our knowledge and belief, true, accurate, and complete. We are aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions, please contact Mr. George T. Basabilvazo at (575) 234-7488.

Sincerely,


Jose R. Franco, Manager
Carlsbad Field Office


Robert L. McQuinn, Project Manager
Nuclear Waste Partnership LLC

Enclosure

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R. Maestas, NMED *ED
CBFO M&RC
*ED denotes electronic distribution



Fourth Supplement to the Report of Implementation of the Waste Isolation Pilot Plant Facility Resource Conservation and Recovery Act Contingency Plan on April 11, 2014

On April 11, 2014, the U.S. Department of Energy (DOE) Carlsbad Field Office (CBFO) and Nuclear Waste Partnership LLC (NWP), Permittees of Hazardous Waste Facility Permit (NM4890139088-TSDF), implemented the Resource Conservation and Recovery Act (RCRA) Contingency Plan. The Permittees subsequently filed a report with the New Mexico Environment Department (NMED) on April 28, 2014, documenting implementation of the RCRA Contingency Plan. On July 7, 2014, the Permittees provided updated information in the "Supplement to the Report of Implementation of the Waste Isolation Pilot Plant Facility Resource Conservation and Recovery Act Contingency Plan on April 11, 2014." Another supplement, the "Second Supplement to the Report of Implementation of the Waste Isolation Pilot Plant Facility Resource Conservation and Recovery Act Contingency Plan on April 11, 2014," was submitted by the Permittees on August 18, 2014. The "Third Supplement to the Report of Implementation of the Waste Isolation Pilot Plant Facility Resource Conservation and Recovery Act Contingency Plan on April 11, 2014" was submitted by the Permittees on March 23, 2015.

Investigations of the cause of the February 14, 2014, radiological event have been ongoing since the time of these reports. The information provided below is an additional supplement to the information provided in the previous reports. A summary of this information was reported verbally to the NMED on April 25, 2015.

The name and quantity of material(s) involved

The DOE Accident Investigation Board has concluded that container LA00000068660 from Los Alamos National Laboratory (LANL) waste stream LA-MIN02-V.001 was the only container that was damaged in the February 14, 2014 event. This is a waste stream that contains nitrate salts. The EPA hazardous waste numbers (HWNs) assigned to this waste stream were identified by the generator at the time of characterization, and provided to the Permittees in a waste stream profile form. These HWNs are D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D035, D038, D039, D040, F001, F002, and F005.

Because video investigations of the source of the release in Panel 7, Room 7, show evidence that a thermal reaction occurred in drum LA00000068660, the Permittees have determined that the subject waste container appears to have exhibited the characteristic of ignitibility after it was disposed. The Technical Assessment Team concluded that the thermal reaction was the result of incompatible materials, including

nitrate salts in the container along with the physical conditions within the container that led to the reaction. LANL and the Permittees have initiated investigations to determine if other containers from waste stream LA-MIN02-V.001 and other nitrate salt bearing waste streams also contain incompatible materials including nitrate salts that could, under similar physical conditions exhibit the characteristic of ignitibility and, consequently, should be provisionally assigned an additional EPA hazardous waste number (D001). Pending receipt of additional information, the Permittees believe the EPA Hazardous Waste Number of D001 should be provisionally applied to 425 containers (this includes drum LA00000068660) from LANL waste streams LA-MIN02-V.001, LA-MHD01.001, and LA-MIN04-S.001. These wastes containers have been disposed of in Panel 5, Room 1; Panel 6, Rooms 1 through 6; and Panel 7, Room 7, in the underground WIPP facility (Panel 5, Room 1 (2 containers); Panel 6, Room 1 (216 containers); Panel 6, Room 2 (101 containers); Panel 6, Room 3 (41 containers); Panel 6, Room 4 (7 containers); Panel 6, Room 5 (1 container); Panel 6, Room 6 (2 containers); and Panel 7, Room 7 (55 containers)). Continuing investigation and analysis by both the Permittees and LANL may provide additional information concerning the waste streams. The Permit Part 2, Section 2.3.3.7, specifies that wastes exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003) are not acceptable at the WIPP facility.

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

On May 8, 2014, the Permittees suspended the authorization for certification of certain waste streams, including LA-MIN02-V.001, via the WIPP Form process. This halted shipment of additional containers of these wastes from LANL. This action was taken to protect human health and the environment. On May 20, 2014, the NMED ordered the Permittees to prepare and submit for approval a plan to isolate the disposed nitrate salt bearing waste by closing Panel 6 and Panel 7, Room 7, in order to protect human health and the environment. The Permittees responded to the order by preparing the WIPP Nitrate Salt Bearing Waste Container Isolation Plan, which was submitted to the NMED on May 30, 2014. The NMED approved two portions of the plan, which provide protection to human health and the environment. Specifically, the NMED approved the continued use of the underground filtration system in Sections 3.2.1 and 3.4.1 and the expedited initial Panel 6 closure portion of the plan identified in Sections 3.2.2 and 3.3.2 and provided comments on the plan on August 5, 2014. The Permittees responded to the comments and submitted the revised plan on September 30, 2014. On March 20, 2015, the NMED approved Revision 1 of the plan with the exception of Sections 3.2.3 and 3.3.3, which include the proposed activities for permanent closure of Panel 6. The approval process for permanent closure of all panels will be subject to public participation requirements in accordance with 40 CFR §270.42. The Permittees plan to

leave these wastes in place and implement the WIPP Nitrate Salt Bearing Waste Container Isolation Plan. The Permittees are preparing to implement this plan to expedite initial closure of Panel 6 and Panel 7, Room 7. An explosion isolation wall has been installed in Panel 5.