

SNL MWL 05  
State of New Mexico  
**ENVIRONMENT DEPARTMENT**



**BILL RICHARDSON**  
GOVERNOR

**Hazardous Waste Bureau**  
2905 Rodeo Park Drive East, Building 1  
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**RON CURRY**  
SECRETARY

**DERRITH WATCHMAN-MOORE**  
DEPUTY SECRETARY

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

December 9, 2005

Patty Wagner  
Manager  
Sandia Site Office/NNSA  
U.S. Department of Energy  
P.O. Box 5400, MS 0184  
Albuquerque, NM 87185-5400

Peter B. Davies  
Director, Geoscience and Environment  
Center (6100)  
Sandia National Laboratories  
P.O. Box 5800, MS 0701  
Albuquerque, NM 87185

**RE: NOTICE OF PUBLIC COMMENT PERIOD FOR SANDIA NATIONAL LABORATORIES MIXED WASTE LANDFILL CORRECTIVE MEASURES IMPLEMENTATION WORK PLAN (INCLUDING FATE AND TRANSPORT MODEL)**  
**SANDIA NATIONAL LABORATORIES EPA ID# NM5890110518**  
**HWB-SNL-05-025**

Dear Ms. Wagner and Mr. Davies:

Enclosed is a **Public Notice** regarding the U. S. Department of Energy (DOE)/Sandia Corporation's (Permittees) Corrective Measures Implementation (CMI) Work Plan for the Sandia National Laboratories (SNL) Mixed Waste Landfill (MWL). As you are aware, the MWL CMI Work Plan includes the results of a fate and transport model that predicts the future movement of contaminants at the MWL.

The New Mexico Environment Department (NMED) will begin a 60-day public comment period on **December 18, 2005**. The Permittees may submit comments to NMED no later than **5:00 p.m., February 2, 2006**, the close of the public comment period. NMED will give due consideration and the weight it deems appropriate to all comments received during the public comment period in its decision to approve or approve with modifications the Corrective Measures Implementation Work Plan.

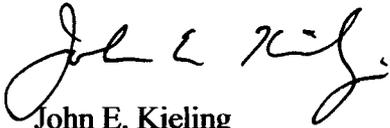
Ms. Wagner and Mr. Davies

December 9, 2005

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Please contact Mr. William Moats of my staff at (505) 284-5086 should you have any questions.

Sincerely,



John E. Kieling

Manager

Permits Management Program

JEK:wpm

Enclosure

cc: J. Bearzi, NMED HWB  
W. Moats, NMED HWB  
J. Volkerding, NMED DOE OB  
L. King, EPA, 6PD-N  
F. Nimick, SNL, MS 1089  
J. Gould, NNSA/DOE MS 0184

File: SNL, HSWA, OU 1289, 2005



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**PUBLIC NOTICE NO. 05-18**

**NEW MEXICO ENVIRONMENT DEPARTMENT  
HAZARDOUS WASTE BUREAU  
SANTA FE, NEW MEXICO  
December 9, 2005**

**NOTICE OF PUBLIC COMMENT PERIOD  
FOR SANDIA NATIONAL LABORATORIES MIXED WASTE LANDFILL CORRECTIVE  
MEASURES IMPLEMENTATION WORK PLAN  
(INCLUDING FATE AND TRANSPORT MODEL)**

The federal Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §§ 6901 to 6992(k), provides for the regulation of hazardous waste. Congress waived the immunity of the United States for actions brought under state hazardous and solid waste laws as well as under RCRA. Pursuant to Section 3006 of RCRA, 42 U.S.C § 6926, the U.S. Environmental Protection Agency (EPA) delegated to the New Mexico Environment Department (NMED), on April 16, 1985 by delegation numbers 8-31 and 8-32, the authority to enforce the Hazardous Waste Act (HWA) and its implementing regulations, the New Mexico Hazardous Waste Management Regulations (HWMR), 20.4.1 NMAC, in lieu of EPA enforcement through RCRA. NMED has maintained its delegation from EPA over hazardous waste management in New Mexico and from time to time has amended its state program to conform to statutory or regulatory changes in RCRA. The HWMR require corrective action at solid waste management units (SWMUs) where releases of hazardous waste or hazardous constituents have or may have occurred.

The U. S. Department of Energy, owner and operator, and Sandia Corporation, co-operator, (hereinafter referred to as the Permittees) have been issued a RCRA Permit for the Sandia National Laboratories (SNL) Facility, located in Bernalillo County, New Mexico, EPA ID# NM5890110518. The Permittees must comply with the HWA, the HWMR, and the SNL RCRA Permit and must conduct corrective action as necessary to protect human health and the environment.

On May 26, 2005, the NMED Secretary approved a final permit and ordered a final remedy for SNL's Mixed Waste Landfill. As part of these actions, the Permittees were required to submit to the NMED a Corrective Measures Implementation (CMI) Work Plan, which is to include a fate and transport model predicting the future movement of contaminants. The CMI Work Plan was submitted to the NMED on November 3, 2005 and includes a fate and transport model. Pursuant to the Secretary's order, the NMED is seeking public comment on the CMI Work Plan prior to making a final decision on whether to approve the plan.

## **LOCATION OF THE SNL FACILITY AND THE MWL**

The Permittees are located at the following addresses: SNL, 1515 Eubank SE, Albuquerque, NM, 87123; and NNSA/DOE, Sandia Site Office, KAFB-East, Pennsylvania & H Street, Albuquerque, NM 87116. The Permittee's primary contact for this action is Mr. John Gould, NNSA/Sandia Site Office, DOE, at P.O. Box 5400, Albuquerque, NM 87185.

SNL is located within the boundaries of Kirtland Air Force Base (KAFB), south of Albuquerque in Bernalillo County, New Mexico. KAFB occupies 52,233 acres. SNL research and administration facilities occupy 2,842 acres and are divided into five Technical Areas (TAs), (designated 1 through 5) and several test areas. TA-1, TA-2, and TA-4 are separate research facilities in the north-central portion of KAFB. TA-3 and TA-5 are contiguous research facilities forming a 4.5-square-mile rectangular area in the southwestern portion of KAFB. TA-3 alone encompasses 2,000 acres.

The Mixed Waste Landfill (MWL) is located approximately 5 miles southeast of the Albuquerque International Sunport and 4 miles south of TA-1. The landfill occupies 2.6 acres in the north-central portion of TA-3.

## **FACILITY OPERATIONS**

SNL, in operation since 1945, is engaged in research and development of conventional and nuclear weapons, alternative energy sources, and a wide variety of national security related research and development. As a result of these activities, SNL has generated hazardous, radioactive, mixed (those wastes containing both hazardous and radioactive components), and solid wastes. From 1945 to 1988 most of these wastes were disposed of at SNL at numerous locations, which have been classified by the NMED as Solid Waste Management Units (SWMUs) or Areas of Concern (AOCs). The SWMUs and AOCs include unpermitted landfills, septic-system drainfields and seepage pits, outfalls, waste piles, and test areas. Past waste management activities at SNL have caused the release of hazardous and radioactive contaminants into the environment. The Mixed Waste Landfill is classified as SWMU 76.

## **DESCRIPTION AND HISTORY OF THE MIXED WASTE LANDFILL**

The MWL was opened as the "TA-3 low-level radioactive waste dump" in March 1959. The MWL accepted low-level radioactive waste and mixed waste from SNL research facilities and off-site generators from March 1959 to December 1988. Approximately 100,000 cubic feet of radioactive waste containing 6,300 curies (Ci) of activity (at the time of disposal) were disposed of at the MWL in unlined trenches and pits.

Investigations at the landfill indicate that tritium is the primary contaminant that has been released from the landfill. Results of a risk assessment prepared by the Permittees indicate that releases of contaminants from the MWL pose little risk to human health or the environment under an industrial land use scenario. Tritium activities at the MWL will decrease steadily with time due to its relatively short half-life of 12.3 years. Because of tritium's short half-life and in consideration of current activity levels, the NMED does not believe that tritium releases at the MWL pose a threat to groundwater, human health, or the environment.

## **REGULATORY BACKGROUND**

NMED issued a RCRA Permit for storage of hazardous waste at SNL on August 6, 1992. On February 6, 2002, the Permittees applied to the NMED to renew their RCRA permit (the current Permit remains in effect until a final decision is made on the renewal request). On October 11, 2001, the NMED directed the Permittees to conduct a Corrective Measures Study (CMS) for the MWL because of concerns raised by the public. The CMS Work Plan was approved with conditions by the NMED on October 10, 2002.

After approval of the CMS Work Plan, the CMS was conducted by the Permittees to identify, develop, and evaluate corrective measures alternatives and to recommend a final remedy to be taken at the MWL. The results of the CMS were documented in a CMS Report following completion of the study; the report was transmitted to the NMED on May 21, 2003. The CMS Report was deemed complete by the NMED on January 5, 2004.

On January 23, 2004, the Permittees proposed a Class 3 modification of the SNL RCRA Permit, requesting that the NMED select a final remedy for the MWL. As part of a 60-day public notice and comment period initiated by the Permittees, a public meeting was held on February 26, 2004 in Albuquerque, New Mexico. Following completion of the Permittees public comment period, the NMED issued a public notice and began a public comment period starting August 11, 2004.

A public hearing on the selection of a final remedy for the MWL was held on December 2-3 and 8-9, 2005 in Albuquerque. The NMED public comment period was held from August 11, 2004 to December 2, 2004, and extended until December 9, 2004. Based on the administrative record and the Hearing Officer's Report, on May 26, 2005, the NMED Secretary approved a final permit and ordered a final remedy for SNL's Mixed Waste Landfill, selecting a vegetative soil cover with bio-intrusion barrier as the final remedy. In addition to selection of the final remedy, the final permit decision requires, among other deliverables, a CMI Work Plan. The CMI Work Plan must address the following:

- a. A description of the selected remedy;
- b. A description of the remediation system objectives;
- c. An identification and description of the qualifications of key persons, consultants, and contractors that will be implementing the remedy;
- d. Detailed engineering design drawings and systems specifications for all elements of the remedy;
- e. A construction and construction quality assurance work plan;
- f. An operation and maintenance plan;
- g. The results of any remedy pilot tests, such as landfill cover test plots;
- h. A schedule for submission to the Administrative Authority of periodic progress reports;
- i. A schedule for implementation of the remedy;
- j. A health and safety plan;
- k. A comprehensive fate and transport model that studies and predicts future movement of contaminants in the landfill and whether they will eventually move further down the vadose zone and/or to groundwater; and
- l. Triggers for future action that identify and detail specific monitoring results that will require additional testing or the implementation of an additional or different remedy.

The Secretary's order requires that the NMED review, consider and respond to public comments prior to approving certain documents related to the MWL, including the CMI Work Plan. The purpose of this public notice is for the NMED to solicit such public comment on the CMI Work Plan, including the fate and transport model.

### **PUBLIC REVIEW OF THE CORRECTIVE MEASURES WORK PLAN**

The CMI Work Plan (including the fate and transport model) may be reviewed by any member of the public at the following locations during the public comment period:

NMED – Hazardous Waste Bureau  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6303  
(505) 428-2500  
*Monday - Friday from 8:00 a.m. to 5:00 p.m.*

NMED-District 1 Albuquerque Office  
5500 San Antonio NE  
Albuquerque, New Mexico 87109  
(505) 222-9500  
*Monday - Friday from 8:00 a.m. to 5:00 p.m.*

The CMI Work Plan, including the fate and transport model (as Appendix E), are also available electronically on the NMED website at: <http://www.nmenv.state.nm.us/HWB/snlperm.html> under Mixed Waste Landfill. A separate report, *SAND 2005-6888*, entitled *Probabilistic Performance-Assessment Modeling of the Mixed Waste Landfill at Sandia National Laboratories* is also included on the web page and contains much of the same information as that in Appendix E of the CMI Work Plan. Although the *SAND 2005-6888* report is included on the web page for convenience, the NMED is only seeking public comment on the CMI Work Plan, including Appendix E and all of the other appendices.

To obtain a copy of the CMI Work Plan or a portion thereof, in addition to further information, please contact Ms. Pam Allen at (505) 428-2500, or at the Santa Fe address given above. NMED will provide copies, or portions thereof, at a charge to the requester.

NMED issues this public notice on **December 9, 2005**, to announce the beginning of a 60-day comment period that will end at **5:00 p.m., February 7, 2006**. Any person who wishes to comment should submit written or electronic mail (e-mail) comment(s) with the commenter's name and address to the respective address below. Only comments received on or before **5:00 p.m., February 7, 2006** will be considered.

John E. Kieling, Program Manager  
Hazardous Waste Bureau - New Mexico Environment Department  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, NM 87505-6303  
Ref: Sandia National Laboratories – MWL CMI Work Plan  
E-mail: [john.kieling@state.nm.us](mailto:john.kieling@state.nm.us)

Written comments must be based on the MWL CMI Work Plan (including the fate and transport model).

The NMED must ensure that the approved CMI Work Plan will be consistent with the New Mexico Hazardous Waste Management Regulations. All written comments submitted will become part of the

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administrative record, will be considered in formulating a final decision, and may cause the CMI Work Plan to be modified. NMED will respond in writing to all significant public comment. The response will specify which provisions, if any, of the CMI Work Plan have been changed in the final decision, and the reasons for the change. This response will also be posted on the NMED website in addition to NMED notifying all persons providing written comments.

After consideration of all written public comments received, NMED will approve, or approve with modifications the CMI Work Plan. If NMED modifies the CMI Work Plan, the Permittees shall be provided by mail a copy of the modified CMI Work Plan and a detailed written statement of reasons for the modifications. The NMED will make the final decision publicly available and shall notify the Permittees by certified mail. All persons on the mailing list, or that provided written comments, or who requested notification in writing, will be notified of the final decision by mail.

The final decision will become effective immediately upon service of the decision to the Permittees, unless a later date is specified.

#### **ARRANGEMENTS FOR PERSONS WITH DISABILITIES**

Any person with a disability requiring assistance or auxiliary aid to participate in this process should contact Judy Bentley by 10 days prior to the end of the public comment period at the following address: New Mexico Environment Department, Room N-4030, P.O. Box 26110, 1190 St. Francis Drive, Santa Fe, New Mexico 87502-6110, (505) 827-9872. TDD or TDY users please access Ms. Bentley's number via the New Mexico Relay Network at 1-800-659-8331.