



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

JUN 20 2007

OFFICE OF  
INSPECTOR GENERAL

(b)(6)

We have completed our review of issues raised in your e-mail dated June 8, 2006, to the Environmental Protection Agency Office of Inspector General Hotline regarding the Sandia National Laboratories, New Mexico, Mixed Waste Landfill (MWL). At our meeting in December 2006, you agreed that we should focus on answering three questions: (1) Did the New Mexico Environment Department properly permit the MWL and follow applicable Resource Conservation and Recovery Act (RCRA) closure requirements, (2) are monitoring wells for MWL deficient, and (3) are groundwater samples taken from the monitoring wells representative of contaminants at the MWL?

During the course of our work, we found that Citizen Action New Mexico (CANM) has requested that the New Mexico Court of Appeals determine whether the New Mexico Environment Department appropriately subjected the MWL to RCRA permitting and closure requirements. CANM also included this issue in its "Notice to Sue" EPA to comply with RCRA for the MWL. In addition to pursuing the first part of your complaint through the legal system, CANM requested that EPA Region 6's Criminal Investigation Division and the Department of Energy's Office of the Inspector General investigate issues regarding the inadequacy of the MWL monitoring wells and deficiencies in the samples collected from those wells. EPA's Region 6 Criminal Investigation Division, the Department of Energy's Office of Inspector General, and New Mexico courts are currently in the process of addressing CANM's remaining issues. Thus we have determined that additional work by our office is not warranted at this time, and we have closed your complaint. A copy of our findings is enclosed.

If you have any questions, please contact me at (617) 918-1471 or [mckechnie.paul@epa.gov](mailto:mckechnie.paul@epa.gov), or f

(b)(6)

Sincerely,

A handwritten signature in black ink that reads "Paul D. McKechnie".

Paul D. McKechnie  
Director of Public Liaison

Enclosure

## **EPA Office of Inspector General Public Liaison Report of Preliminary Research**

### **Background/Introduction**

U.S. Department of Energy (DOE) owns the Sandia National Laboratories (SNL). The Sandia Corporation (Sandia), a wholly owned subsidiary of Lockheed Martin Corporation, and the DOE jointly operate SNL. SNL is located within the boundaries of Kirkland Air Force Base, south of Albuquerque, New Mexico, on the eastern margin of the Albuquerque Basin. Albuquerque metropolitan areas use the ground water from the Basin as their main water supply.

From 1959 through 1988, SNL's Mixed Waste Landfill (MWL) accepted 100,000 cubic feet of low-level radioactive and mixed wastes generated by its research facilities. MWL has two distinct disposal sections: a 6-acre classified section and a 2-acre unclassified section.

In 1976, Congress enacted the Resource Conservation and Recovery Act (RCRA). RCRA provided for the development and implementation of a comprehensive program for treatment, storage, and disposal at hazardous waste facilities to protect human health and the environment. EPA has authority to implement RCRA and can authorize eligible States to manage the program. In April 1985, EPA authorized the State of New Mexico to administer and enforce the State's hazardous waste program. New Mexico administers the program through its Hazardous Waste Act and implementing regulations.

Under RCRA, the groundwater protection requirements of 40 Code of Federal Regulations (CFR) 264, Subpart F, apply to surface impoundments, waste piles, land treatment units, and landfills (called regulated units) that received hazardous waste after July 28, 1982. There are three phases to the Subpart F groundwater protection requirements: detection monitoring, compliance monitoring, and corrective action. Subpart F corrective action applies to treatment, storage, and disposal-regulated units that have contaminated ground water.

In a 1986 rule change, EPA included the hazardous waste component of radioactive waste under RCRA. Until 1986, section 1004(27) of RCRA excluded special nuclear or byproduct material from its definition of solid waste sources. In addition, because hazardous waste is defined as a subset of solid waste, special nuclear and byproduct material were exempt from the definition of hazardous waste and, as a result, not regulated under RCRA Subtitle C. Therefore, EPA determined that authorized States' programs did not have the authority to manage the hazardous component of radioactive mixed wastes.

In 1986, EPA also allowed authorized States to apply for authority to manage the program. Facility owners or operators in an authorized State had to file an application for the hazardous component of mixed waste, called a RCRA Part A and Part B, within 12 months of the effective date of the State's authorization to regulate the hazardous component of the radioactive mixed waste, provided that the facility was either operating or under construction. New Mexico received authority to manage mixed waste in July 1990.

Since November 1980, DOE and SNL have managed RCRA regulated wastes under 40 CFR Parts 260-270. In August 1990, SNL submitted a Part A and B application<sup>1</sup> to the New Mexico Environment Department (NMED) for the storage and treatment of hazardous wastes at various units at SNL. Two years later, on August 6, 1992, NMED approved SNL's permit. The SNL permit did not include the MWL.

In January 2004, SNL asked NMED to modify its hazardous waste permit to select a remedy for the MWL. Later that year, NMED drafted a proposed permit for a remedy for SNL and held hearings regarding the selected remedy. The Secretary for NMED issued a final order in May 2005, approving SNL's request. In October 2006, Citizen Action New Mexico (CANM) asked the Court of Appeals of New Mexico to overturn the Secretary's decision.

### **The Complaint**

On June 6, 2006,<sup>1</sup> contacted the U.S. Environmental Protection Agency (EPA) Office of Inspector General (OIG) alleging deficiencies in MWL monitoring well construction and inaccurate sampling data from its monitoring wells. On December 4, 2006, we met with and (b)(6) CANM's Executive Director, David McCoy, regarding their specific issues. We agreed to do preliminary research to answer three questions: (1) did NMED properly permit the MWL and follow applicable RCRA closure requirements, (2) are monitoring wells for MWL deficient, and (3) are groundwater samples taken from the monitoring wells representative of contaminants at the MWL?

### **Preliminary Research Objectives**

We based our preliminary research objectives on the December 4, 2006, meeting with and (b)(6) Mr. McCoy of CANM.

### **Scope and Methodology**

To draw our conclusions about the merits of the complaint, we interviewed staff and collected information from EPA Region 6, NMED, and CANM. To the best of our knowledge, (b)(6) neither the EPA OIG nor the Government Accountability Office has previously conducted work regarding the issues presented by and CANM. The work we did constitutes an audit (b)(6) according to the Government Auditing Standards; however, we limited our review of internal controls to issues in the complaint.

<sup>1</sup> Part A of a RCRA permit application qualifies owners and operators of existing hazardous waste facilities for "interim status" under RCRA. Interim status allows owners and operators to be treated as having been issued a permit until EPA or a State makes a final determination on their permit application. Part B of a RCRA permit application allows owners and operators to receive a permit for the storage, treatment, or disposal of hazardous waste.

## Results of Review

### Issue No. 1. Is the MWL Subject to Permitting and Closure Requirements of RCRA?

We recommend that our office not examine this issue because a legal action filed with the State of New Mexico's Court of Appeals has requested a ruling on the appropriateness of the use of RCRA Corrective Action provisions. The ruling, by the Court of Appeals, has not been issued.

and CANM alleged that NMED did not require Sandia and DOE to file a RCRA (b) (6) Part A and Part B RCRA application for the MWL. They also alleged the State allowed DOE and SNL to use RCRA Corrective Action provisions instead of the more stringent closure requirements of 40CFR Part 264, subpart G and 40 CFR 270.1(c).

NMED disagrees. In October 2006, CANM filed a legal action with the Court of Appeals for the State of New Mexico regarding this issue. Two months later, in December 2006, NMED filed a court response to CANM's lawsuit. In addition to the lawsuit, on January 23, 2007, CANM requested that the EPA Region 6 Criminal Investigation Division (EPA-CID) investigate this issue as a criminal matter.

CANM's court appeal argues that the MWL accepted RCRA-regulated hazardous waste after July 26, 1982, and is therefore subject to the RCRA closure and post-closure requirements rather than the less restrictive corrective action requirements. In addition, CANM contends that that SNL did not, but should have, filed a valid RCRA Part A and B application.

NMED contends that SNL was not required to file a Part A and B application for the MWL. NMED argues that a 1988 Federal regulation<sup>2</sup> required facilities such as SNL, in States like New Mexico, with base programs in place as of July 3, 1986, to submit a revised Part A application reflecting their radioactive mixed waste activity within 6 months of the State's receipt of authorization for mixed waste. In August 1990, SNL submitted a Part A and B application for storage of hazardous waste. Two years later, NMED approved the permit but the MWL was not part of SNL's application because the MWL closed in 1988, prior to the date that New Mexico received authorization to manage mixed waste.

NMED also believes that the MWL is subject to corrective action because the MWL is a solid waste management unit (SWMU) under the RCRA regulations and, as a result, MWL is subject to corrective action. In 1986, EPA recognized it could regulate units with mixed waste that did not fall within the State's mixed waste authority but could nonetheless be regulated as a SWMU subject to corrective action.<sup>3</sup> In 1993, EPA designated the MWL as a SWMU because NMED had not received its authority to manage the corrective action program.

In 1998, the NMED Office of General Counsel reviewed the regulatory status of the MWL. Its review included whether SNL should close the landfill under a post-closure permit or if it was appropriate for SNL to take corrective action as a SWMU under the Hazardous and Solid Waste Amendments (HSWA).

<sup>2</sup> September 23, 1988 Federal Register, Volume 53, No. 185, pages 37045-48, Modification of Interim Status Qualification Requirements for the Hazardous Components of Radioactive Mixed Waste.

<sup>3</sup> July 3, 1988 Federal Register, Volume 51, No. 128, pages 24505-06, State Authorization to Regulate Hazardous Components of Radioactive Mixed Wastes under the Resource Conservation and Recovery Act.

NMED's Office of General Counsel determined that SNL disposed of mixed waste into MWL after July 26, 1982, and was therefore required to obtain a post-closure permit under 40 CFR 270.1(c). However, it also determined that NMED had the option of closing MWL under a post-closure permit or under HSWA. NMED, in consultation with DOE and SNL, decided to close MWL as SWMU under HSWA, provided DOE and SNL complied with the technical requirements imposed by NMED. Treating the MWL as a SWMU under HSWA requires that DOE and SNL demonstrate that its remedy is equivalent to post-closure care permit requirements.

**Issue No. 2. Is MWL's Monitoring Well Network Deficient?**

We recommend that our office not examine this issue because CANM has previously requested that two investigative organizations pursue this issue and has notified EPA and DOE of its intent to sue.

and CANM alleged that the monitoring wells for MWL are deficient because only one (b)(6) monitoring well is currently installed in the unsaturated or vadose zone to detect contamination from the MWL and that no monitoring wells have been installed in the unsaturated or vadose zone at the point of compliance at the western boundary of the MWL. CANM made similar allegations to the DOE OIG and EPA-CID as well as in its Notice Intent to Sue EPA, DOE, and SNL over failure to comply with RCRA for the MWL.

DOE OIG acted on CANM's request to determine if the monitoring wells are deficient because of the wells' locations. On June 21, 2006, DOE OIG issued a Management Referral Memorandum, "Possible Deficiencies in Monitoring Wells at Sandia Mixed Waste Landfill [MWL]" [File No. I06RS055] questioning whether the monitoring wells were installed in the proper location. In September 2006, DOE and SNL responded to DOE OIG stating that they disagreed with DOE OIG's allegations that the wells are not located in the area of the highest level of contamination. DOE and SNL agreed with CANM's allegation that they did not install monitoring wells in the vadose zone but do not believe corrective action is required at this time. They noted their plans to monitor the vadose zone in the future, once the Long-Term Monitoring and Maintenance Plan has been developed and approved. On October 12, 2006, CANM filed a Notice of Intent to Sue with EPA, DOE, NMED, and SNL that included this same issue. In addition, on January 23, 2007, CANM requested that the EPA-CID investigate this issue as an environmental crime.

**Issue No. 3. Are Well Samples from MWL Representative?**

Because CANM had previously initiated a similar allegation with EPA CID and DOE OIG, we recommend that our office not pursue this issue.

and CANM allege that the samples from the monitoring well are not representative (b)(6) because the monitoring well drilling method used for some wells included an additive, bentonite clay, that masks the detection of contaminants at MWL.

As stated in Issue No. 2, CANM requested that DOE OIG and EPA-CID investigate activities at the MWL. Their requests included an allegation that the samples drawn from MWL's monitoring wells were not representative of the contamination coming from the landfill. DOE OIG acted on CANM's allegation and asked that DOE and SNL respond to CANM's allegation. DOE and SNL disagreed that

the samples are not representative. Similarly, CANM requested that the EPA-CID investigate SNL for various environmental crimes, including this issue.