



U.S. Department of Energy
Office of Inspector General
Office of Audits and Inspections

Special Report

Inquiry into the De-Inventory of
Special Nuclear Material at
Lawrence Livermore National
Laboratory

OAS-L-12-11

September 2012



Department of Energy
Washington, DC 20585

September 21, 2012

MEMORANDUM FOR THE MANAGER, LIVERMORE SITE OFFICE

A handwritten signature in black ink, appearing to read "David Sedillo".

FROM: David Sedillo
Director, Western Audits Division
Office of Inspector General

SUBJECT: INFORMATION: Special Report on "Inquiry into the De-Inventory of Special Nuclear Material at Lawrence Livermore National Laboratory"

BACKGROUND

The Lawrence Livermore National Laboratory (Livermore) is a Department of Energy facility managed and operated by Lawrence Livermore National Security, LLC (LLNS), for the Department's National Nuclear Security Administration (NNSA). Livermore's mission is to ensure the safety, security and reliability of the nuclear stockpile. In support of its mission, Livermore maintained Security Category I/II quantities of special nuclear material (SNM) that required the highest level of security.

In October 2006, Public Law 109-364 required, among other things, the Department to develop a plan to transform the nuclear weapons complex and to consolidate SNM to the maximum extent practicable throughout the nuclear weapons complex, with the ultimate goal of eliminating Security Category I/II SNM from the national security laboratories by no later than March 1, 2012. NNSA issued a Record of Decision in December 2008 that called for the removal of Security Category I/II SNM from Livermore by the end of Fiscal Year 2012. NNSA's plan was to eliminate SNM storage from Livermore's Plutonium Facility which is located in an area known as the "Superblock," one of the two defense plutonium research and development facilities in the United States.

In January 2012, the Office of Inspector General received allegations that Livermore had: (1) failed to follow the Department's Record of Decision requirements for removing SNM and as such had violated Public Law 109-364; (2) attempted to maintain SNM beyond 2012 by establishing unique testing capabilities that were used to perform physical work using SNM on the W78 Life Extension Program (LEP) that required only a "paper study;" (3) misappropriated Government funds to reestablish test capabilities following a flood in 2006; and, (4) incurred excessive security costs for SNM. We initiated a special inquiry to review the allegations.

RESULTS OF INQUIRY

Our inquiry did not substantiate the specific allegations outlined in the complaint. Specifically, we found no evidence that Livermore had not followed the Department's Record of Decision for removing Security Category I/II SNM as required by Public Law 109-364. In addition, we

found no support for allegations that Livermore developed unique environmental testing capabilities that were used to perform physical work on the W78 LEP when only a paper study was required, misappropriated Government funds relating to SNM activities, or had incurred excessive security costs.

Record of Decision

Livermore's de-inventory plan, which was approved by the NNSA Administrator, committed to removing Security Category I/II SNM by September 30, 2012 as required by the Record of Decision. NNSA's Record of Decision stated that NNSA planned to phase out Security Category I/II operations at Livermore and would not maintain Security Category I/II SNM by the end of 2012. Although Public Law 109-364 established an "ultimate goal" of SNM removal by March 1, 2012, an NNSA official told us that it was not an absolute date for completion. Accordingly, they set a more realistic date of September 30, 2012 that allowed for flexibility in completing the de-inventory to the maximum extent practicable.

Livermore officials told us they were confident about achieving the de-inventory goal by September 30, 2012. According to Livermore's status updates, as of May 2012, Livermore had processed approximately 99 percent of the Security Category I/II SNM for off-site shipments, of which approximately 95 percent of the Security Category I/II SNM had been removed from the site. Our examination of status and progress reports revealed that Livermore was on target to complete de-inventory of SNM by the end of FY 2012. Furthermore, according to a Livermore Site Office official, quantities of SNM were validated against the status and progress reports, therefore we did not independently verify the quantities of SNM that were processed and shipped off-site.

W78 Testing Capabilities and Studies

We did not find any evidence to support the allegation that Livermore established unique environmental testing capabilities for the W78 LEP and used this capability to perform physical work on the LEP when only a paper study was required. In February 2011, NNSA approved the reestablishment of an environmental testing capability that had previously existed at Livermore but was no longer fully functioning because the programmatic need to exercise this capability ended in 2005. According to an NNSA official, Livermore possessed a vibration machine that was part of its previous testing capability but needed an acceleration testing machine to meet current environmental testing needs. Livermore built the acceleration testing machine in 2011, using off-the-shelf parts. According to an NNSA official, Livermore's environmental testing capability supports various programmatic missions, including the W78 LEP. Further, according to a Livermore Site Office official, Livermore will continue to utilize the equipment to conduct environmental testing on nonnuclear components after SNM is removed from the site.

NNSA's approval of the reestablishment of the environmental testing capability allowed Livermore to perform physical work using SNM for the W78 LEP studies. However, an NNSA official told us that the first phase of the W78 LEP study was not strictly a "paper study" and required environmental testing using SNM.

Government Funds

We found no evidence that Livermore misappropriated Government funds to facilitate the reestablishment of the environmental test capability and to refurbish a Superblock building following a 2006 flood. As previously discussed, Livermore's vibration machine was in an inoperable state since 2005 because there was no programmatic need to conduct tests using this piece of equipment. Following an extended period of non-operation, NNSA authorized reactivation of the vibration machine in February 2011 for the study of W78 LEP and other programmatic activities. We determined that maintenance to the vibration machine following a flood in October 2006 was unrelated to reactivation in 2011. In addition, we found that the building was not refurbished after the flood because recovery efforts involved minimal activities such as mopping the floor. Thus, we determined that there were no misappropriated Government funds.

Security Costs

Finally, we did not substantiate the allegation that Livermore incurred excessive security costs by maintaining security levels necessary to protect Security Category I/II SNM. NNSA's Record of Decision stated that limiting Livermore operations to Security Category III/IV SNM would achieve security savings of approximately \$30 million per year. According to NNSA officials, in order to maintain needed levels of security, Livermore was authorized to offer retention bonuses and to provide a 12-month transition phase for security personnel to shift to other jobs after de-inventory. Livermore estimated that the retention bonuses paid out to eligible employees from FY 2010 through FY 2012 would be approximately \$15.2 million. NNSA officials told us that to ensure that the proper security personnel were in place until the Security Category I/II SNM was removed, Livermore paid retention bonuses to security personnel who elected to stay until September 30, 2012. The bonuses were approved by the Livermore Site Office and stipulated in a Collective Bargaining Agreement (CBA) between LLNS and the Security Police Officers Association. The current CBA states that each eligible security personnel shall receive a total lump sum amount of \$50,000 over a period of three fiscal years. According to a Livermore official, the retention bonuses helped to maintain the number of security personnel at the levels required for Security Category I/II protection throughout the de-inventory, as well as maintain the morale amongst the impacted security personnel.

In addition to the retention bonuses, NNSA's Office of Defense Nuclear Security verbally authorized a 12-month transition phase, ending on September 30, 2013, to assist impacted security personnel to shift to other jobs post de-inventory. In instances where a change in workforce is necessary, such as the reduction of security personnel post de-inventory, Livermore is required under its contract to develop a Workforce Restructuring Plan that provides detailed information regarding the proposed workforce restructuring activities. Livermore is currently drafting its Workforce Restructuring Plan, which will be implemented post de-inventory.

Since the allegations were not substantiated, we are not making any recommendations and a formal response is not required. We appreciated the cooperation of your staff during the review.

cc: Deputy Secretary
Associate Deputy Secretary
Administrator, National Nuclear Security Administration
Chief of Staff

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