

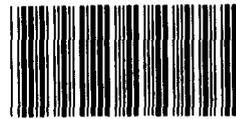
GAO

Report to the Chairman, Subcommittee
on Oversight and Investigations,
Committee on Energy and Commerce,
House of Representatives

February 1991

NUCLEAR SECURITY

Accountability for Livermore's Secret Classified Documents Is Inadequate



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February 8, 1991

The Honorable John D. Dingell
Chairman, Subcommittee
on Oversight and Investigations
Committee on Energy and Commerce
House of Representatives

Dear Mr. Chairman:

The Department of Energy's (DOE) Lawrence Livermore National Laboratory, located in Livermore, California, generates and controls large numbers of classified documents associated with the research and testing of nuclear weapons.¹ Because of your concern about the potential for espionage at the laboratory and the national security implications of classified documents being stolen, you asked us in January 1990 to (1) determine the extent of missing classified documents at the laboratory and (2) assess the adequacy of accountability over classified documents in the laboratory's custody. Subsequently, we agreed with your office to limit our audit coverage to the approximately 600,000 secret documents in the laboratory's custody.² We also assessed the adequacy of DOE's oversight of the laboratory's secret document control program.

Results in Brief

A substantial number of secret documents cannot be located by the laboratory. These documents cover a wide range of topics including nuclear weapons and laser design. Specifically, a recent internal inventory of secret documents at the laboratory identified over 12,000 missing secret documents for which it is accountable.³ Furthermore, although an ongoing reconciliation effort has located about 2,000 of these documents, an assessment of the potential for compromise to the national security has not been made by the laboratory for the documents that are

¹ A classified document is defined by DOE Order 5635.1A as any document containing information which requires safeguarding in the interest of national security. Such information is classified, in descending order, in one of three levels—top secret, secret, or confidential. As further defined by the Order, the unauthorized disclosure of documents with these classifications could be expected to cause, respectively, "exceptionally grave damage," "serious damage," or "damage" to the national security.

² We excluded top secret documents because the controls over them are different from and much more stringent than those for secret documents. We also excluded confidential documents because an accountability system for such documents is not required by federal or DOE regulation.

³ In this report, we use the term "missing secret documents" to describe those situations where the laboratory has a record of having a secret document but is unable to locate or determine its disposition.

still missing. As a result, neither the laboratory nor DOE can provide assurance that the national security has not been damaged.

In addition, accountability for secret documents in the laboratory's custody is not adequate. About 108 groups manage and control secret documents at the laboratory, and these groups use a variety of classified document accountability systems. Consequently, practices vary, and laboratory management cannot ensure that documents containing secret information are being effectively managed or controlled on a laboratory-wide basis.

Furthermore, DOE has not provided adequate oversight of the laboratory's secret document control program. Although DOE's San Francisco Operations Office annually evaluates classified document controls at the laboratory, these reviews have been limited in scope, and none have identified a problem with missing secret documents. DOE headquarters also evaluated the laboratory's secret document control program in 1987. And like the Operations Office reviews, the headquarters' evaluation was limited in scope and did not identify a problem with missing secret documents.

Background

The Lawrence Livermore National Laboratory was established in 1952 as a nuclear weapons research and development facility. Its overall mission is to serve as a scientific, technical, and engineering resource for the federal government, particularly as these functions relate to national security.

The laboratory is government-owned and contractor-operated by the University of California. The contract, subject to renewal every 5 years, was last signed on September 18, 1987, and expires on September 30, 1992. It requires the university to safeguard and account for classified documents in accordance with DOE security regulations and requirements.

Among other things, these regulations require that classified documents and information be safeguarded and controlled to (1) ensure that classified documents are furnished only to authorized personnel on a "need-to-know" basis and (2) prevent loss or compromise of classified information. Adequately safeguarding and controlling such documents is vital to the national security interests of the United States. If, for example, nuclear weapons design information were disclosed to unauthorized

sources, the potential would exist for serious consequences to the national security.

DOE's San Francisco Operations Office has oversight responsibility for classified document management at the laboratory. DOE's Office of Security Evaluations, located at headquarters, also functions as an oversight body by conducting independent security evaluations of DOE facilities.

A Substantial Number of Secret Classified Documents Are Missing

A substantial number of secret documents cannot be located by the Lawrence Livermore National Laboratory. More importantly, because an assessment of the potential for compromise to the national security for the missing documents has not been made, neither the laboratory nor DOE can provide assurance that the national security has not been damaged.

In February 1988, DOE issued DOE Order 5635.1A entitled "Control of Classified Documents and Information." The Order requires, among other things, that a 100-percent inventory of all secret documents be completed by all "field elements, Departmental elements, and their contractors" no later than June 1, 1989. The date for completion was later postponed until June 30, 1990, because of the extensive time and resources (manpower) needed to conduct the inventories. To comply with this requirement, the laboratory conducted a physical inventory of all its secret classified documents.⁴

The physical inventory identified over 12,000 missing secret documents. On June 28, 1990, the laboratory reported this amount to DOE. Since that time, as a result of an ongoing reconciliation effort, the laboratory has accounted for approximately 2,000 of the secret documents that were missing following the physical inventory. Yet, as of January 2, 1991, over 10,000 documents were still missing.

The missing documents at the laboratory cover a wide range of subject matter, including nuclear weapons design, X-ray laser design, special nuclear materials such as plutonium, and photographs of nuclear weapons and nuclear weapons tests. Both DOE and laboratory officials believe that the missing documents are the result of administrative error, such as inaccurate record keeping—not theft. However, because

⁴The 100-percent inventory excluded some classified intelligence documents that belong to and are controlled by other agencies.

the laboratory has not assessed the potential for compromise to the national security for these missing documents, there is no assurance that the classified information contained in them has not been compromised.

According to DOE's Director, Policy, Standards, and Analysis Division, federal regulations (32 C.F.R. section 2001.47) require the cognizant security official to assess the potential for compromise to the national security for each of the missing documents. If there is reason to believe that the national security has been compromised, then a damage assessment may ultimately be performed. He also stated that it is the San Francisco Operations Office's responsibility to ensure that the laboratory complies with the regulatory requirements.

However, neither DOE's San Francisco Operations Office's Director of Safeguards and Security nor the Chair of the laboratory's Classified Material and Accountability Steering Committee was aware of the Code of Federal Regulations requirement for the cognizant security official to assess the missing documents' potential for compromising the national security. They were aware, however, of a similar requirement in DOE Order 5635.1A. Both indicated that an assessment would be made after the laboratory completed its inventory reconciliation. No official date has been set for concluding the reconciliation. However, the Director of the Safeguards and Security Division of DOE's San Francisco Operations Office indicated that the reconciliation would probably not be completed until the April to May 1991 time frame.

Secret Document Accountability Is Inadequate

Accountability over the large number of secret documents at the laboratory is inadequate. Control over secret documents is decentralized and diverse. As a result, practices vary, and laboratory management cannot readily ensure that secret information is being effectively managed or controlled on a laboratorywide basis. To address this problem, laboratory management is implementing a centralized computer data base. In addition, we identified a number of record-keeping weaknesses.

Control Is Decentralized and Diverse

DOE Order 5635.1A requires the maintenance of and accountability for classified documents at all times. At the laboratory, about 108 laboratory groups use a wide variety of accountability systems to manage the classified documents in their custody.⁵ More than half of the groups use

⁵The number of organizations managing and controlling secret classified documents varies over time. At the time of our audit, there were 108 such groups.

any 1 of 7 different computer systems to control about 98 percent of the laboratory's secret documents. The remaining groups use manual systems, generally index cards, to control the other 2 percent of the documents. By using multiple, diverse classified document control systems, laboratory management does not readily know—on a laboratorywide basis—how many documents, or what documents, it is responsible for protecting. And it cannot readily monitor the movement and destruction of secret documents. Consequently, management is limited in the degree of control it has over the accountability for these documents.

Laboratory management agrees that centralization is needed and is implementing a centralized computer data base. Full implementation of this data base is expected by the end of January 1991. Laboratory management told us, and DOE agrees, that if adequately designed and effectively implemented, this centralized system should greatly improve laboratory management's ability to effectively oversee and more readily identify document accountability problems.

Record-Keeping Weaknesses Identified

DOE Order 5635.1A also requires custodians of secret documents to keep accurate records showing the location and disposition of all accountable classified documents.⁶ Because of record-keeping weaknesses at the laboratory, this requirement is not being met.

We reviewed secret document accountability controls at 7 of the 108 document accountability groups to assess, in part, the accuracy of records. We identified a number of record-keeping problems, including incorrect entries into the records, secret documents that were not physically located where accountability systems specified they were, and misfiled classified document locator cards. The following examples are among the problems that we noted:

- A document custodian had incorrectly entered document control numbers into a computer accountability system. The custodian had entered extra characters, omitted characters, and entered incorrect characters in several cases. Because of these mistakes, the custodian could not match document numbers in the system with the numbers on the documents. An incorrect document number, when entered into the system, destroys the audit trail for the document's accountability and produces a future unaccounted-for document.

⁶Each document accountability group designates an individual to be responsible for the group's classified documents. Such an individual is commonly referred to as a "classified document custodian."

- Groups maintaining computer systems did not always have the most up-to-date location for a document. At one group, for example, a computer print-out contained detailed information consisting of the document holder, repository, and drawer in which the document was located. The custodian told us that any documents on the computer inventory print-out which were not in the repository would be listed on a separate reading file log. But we identified 115 documents that were neither in the designated repository drawer nor on the reading file log.
- The two manual systems included in our sample inventories also had record-keeping problems. Under a manual system, cards and receipts are the typical means of providing accountability. We found misfiled classified document locator (log) cards and instances where more than one document was listed on a card.

DOE Has Not Provided Adequate Oversight of the Laboratory's Secret Document Program

DOE oversight of the laboratory's secret document program, performed largely through program evaluations, is inadequate. Although DOE's San Francisco Operations Office conducts an annual evaluation of the laboratory's secret document program, none of these reviews have identified a problem with missing secret documents. Similarly, the evaluation conducted by DOE's Office of Security Evaluations in 1987 was limited in scope and did not identify a document accountability problem.

DOE Order 5635.1A requires an annual assessment of each facility's classified document control program to assess overall program adequacy. To make this assessment, the San Francisco Operations Office inventories a sample of classified documents from a selection of document accountability groups throughout the laboratory. These samples are used to determine, among other things, the accuracy of secret document inventory records and to assess whether the documents have been properly marked and handled. In May 1990, DOE selected about 1,200 secret documents from 52 of the 108 groups for review and evaluation. Its evaluation of these documents did not identify any missing documents. Yet, 1 month later, the laboratory reported the results of its 100-percent inventory, which identified over 12,000 missing secret documents.

The methodology used by DOE to conduct its sample was not statistically valid. Specifically, groups holding small numbers of secret documents were oversampled, while groups with large numbers of secret classified documents were undersampled. For example, the San Francisco Operations Office auditor selected and reviewed all of the documents from a group holding 10 documents but sampled only 30 documents from another group holding over 16,000 documents.

The sampling methodology used by the Operations Office biases the chances of selection toward the groups holding fewer documents. Yet, most of the missing documents identified during the recent 100-percent inventory were from the groups with the larger number of documents. By biasing the sample, the chances of identifying a document accountability problem are significantly reduced.

In addition to the evaluations conducted by the Operations Office, DOE's Office of Security Evaluations must assess the overall effectiveness of the laboratory's management of facility security functions. The functional areas it covers during any specific inspection, such as personnel security clearances, computer security, and classified document controls, are optional. In general, the functional areas selected for review have been those where problems have been identified in the past. The last time that classified document controls were included in an Office of Security Evaluation inspection of the laboratory was 1987, and before that, 1980. According to the Director of the Office of Security Evaluations, previous inspections had not identified classified document accountability as a problem and, therefore, they had not routinely included this area in the Office's evaluation of the laboratory's security functions.

The 1987 review of secret documents consisted of taking a 158-document sample from the inventory records of 6 of the document accountability groups and tracing the sample to the physical document to verify, among other things, the adequacy of the accountability records. Using this process, one document was found to be missing. While we do not know how many secret documents were actually missing at that time, the sample size and number of groups audited were not sufficient to allow the Office of Security Evaluations to reach any conclusions about the overall performance of the laboratory's secret document control program.

Furthermore, while statistically sampling secret documents can identify the extent of missing documents, it does not necessarily provide for the identification of internal control weaknesses which led to the loss of accountability over them. If DOE were to review the adequacy and implementation of the laboratory's secret document control policies and procedures, DOE would have a stronger basis for assessing whether the secret documents in the laboratory's custody are being adequately controlled. And, more importantly, DOE would be in a better position to identify potential problem areas. DOE could, for example, assess the adequacy of (1) the laboratory's classified document control training

program, (2) accountability records and the policies and procedures governing them, and (3) the methods used by the laboratory to conduct its inventories of secret documents. DOE could also evaluate the qualifications of the individuals responsible for keeping the secret document inventory records, and of those performing the physical inventories.

Secret Document Accountability Problems Are Not Unique to the Laboratory

Secret document accountability problems are not unique to the Lawrence Livermore National Laboratory. Both DOE's December 1990 "Report of the Secretary's Safeguards and Security Task Force" and DOE's "Federal Managers' Financial Integrity Act Report," also issued in December 1990, identified classified document control deficiencies.

Specifically, in April 1989, the Secretary of Energy directed a review of safeguards and security throughout the Department. A special task force subsequently conducted the review. The specific results of the review, provided to the Secretary on December 12, 1990, are currently classified as confidential and, therefore, cannot be discussed openly in this report. However, the task force did find that the overall status of control over and accountability for secret documents within DOE is unsatisfactory and that the 100-percent inventories being conducted complexwide indicate a substantial number of unaccounted-for or unrecconciled documents. The task force also reported that there is no standard automated document control system throughout the Department and that more standardization is needed to better ensure the proper control over and accountability for such documents. In addition, the task force recommended that DOE reassess its requirements and procedures for secret documents and modify them as appropriate to ensure that proper control and accountability exist.

Similarly, the Federal Managers' Financial Integrity Act Report, issued December 21, 1990, identified numerous safeguards and security deficiencies, including weaknesses in classified document controls. The Financial Integrity Act of 1982 requires executive agencies to evaluate and assess, among other things, whether internal management and administrative controls are in compliance with the standards prescribed by the Comptroller General. Although the report does not indicate what the exact classified document control weaknesses are, the Secretary of Energy acknowledged that improvements are needed in this area and that the safeguards and security task force recommendations will identify the corrective actions needed.

Conclusions

The laboratory's secret document control program is inadequate. A substantial number of secret documents are missing, and the accountability controls over them do not ensure that classified information is being adequately controlled. Although it is encouraging to see that laboratory management is developing and implementing a centralized computer data base for controlling secret documents, more can be done to improve the management of and control over such documents.

While the University of California is responsible for managing and controlling the secret documents at the laboratory, it is DOE's responsibility to ensure that the university does so. It is also DOE's responsibility to ensure that the laboratory's classified document control program is effective and that classified information is not lost or compromised. DOE has fallen short of meeting these responsibilities.

Despite numerous evaluations of the laboratory's secret document program by both DOE's San Francisco Operations Office and the Office of Security Evaluations, neither office has identified a major problem with missing secret documents. Had DOE's oversight of the laboratory's secret document program been adequate, the large number of documents now missing should have been identified and corrective action taken. Similarly, had DOE provided adequate oversight, the numerous record-keeping deficiencies that we identified during our review should also have been identified and corrective action taken.

Furthermore, although DOE and laboratory officials do not believe that the missing documents have been lost or stolen, an assessment of the potential for compromise to the national security has yet to be made. Therefore, there is no assurance that the national security has not been damaged. Because of the potentially serious consequences to the national security if critical secret documents have been disclosed to unauthorized sources, we believe that an assessment of the potential for compromise should be made immediately for the missing documents.

Recommendations

To improve oversight of the laboratory's secret document program, we recommend that the Secretary of Energy direct both the Director, Office of Security Evaluations, and the San Francisco Operations Office Manager to

- use sound statistical samples when assessing the adequacy of accountability over secret documents and

-
- expand their audit coverage to include an assessment of the adequacy of the laboratory's secret document control policies and procedures and how well they are being implemented.

In addition, because of the magnitude of the secret document control accountability problem at the laboratory, we recommend that the Secretary of Energy require the Director, Office of Security Evaluations, to include an assessment of the laboratory's secret document program in its security inspections at least until such time that DOE is assured that a sound secret document accountability system is in place.

We also recommend that the Secretary of Energy direct the San Francisco Operations Office Manager to ensure the immediate implementation of the requirements of 32 C.F.R. section 2001.47 for assessing the potential for compromise to the national security of the identified missing secret documents.

Furthermore, because the recent findings of both the safeguards and security task force and the Federal Managers' Financial Integrity Act Report indicate problems with classified document controls DOE-wide, we recommend that the Secretary implement the above recommendations at other DOE facilities and offices, as appropriate.

We performed our work at DOE headquarters, DOE's San Francisco Operations Office, and the Lawrence Livermore National Laboratory between March and November 1990. Our review included assessing the accuracy and location of secret documents, the procedures followed at seven laboratory organizations, laboratorywide inventory procedures, and DOE and laboratory oversight of the classified document system. (Additional information on our objectives, scope, and methodology is contained in appendix I.)

As agreed to with your office, we did not obtain official agency comments on a draft of this report. We did, however, discuss the facts with responsible DOE and laboratory officials and incorporated their suggestions where appropriate. In general, they agreed with the facts presented. As arranged with your office, we plan no further distribution of this report until 30 days after its issue date. At that time, we will send copies to the Secretary of Energy; the Director, Office of Management and Budget; and other interested parties. This work was performed under the direction of Victor S. Rezendes, Director, Energy

Issues (202) 275-1441. Major contributors to this report are listed in appendix II.

Sincerely yours,



J. Dexter Peach
Assistant Comptroller General

Objectives, Scope, and Methodology

In January 1990, the Chairman of the Subcommittee on Oversight and Investigations, House Committee on Energy and Commerce, asked us to determine the extent of missing documents and assess the adequacy of accountability controls over classified documents at the Lawrence Livermore National Laboratory. As subsequently agreed to with his office, we limited our audit coverage to the approximately 600,000 secret documents in the laboratory's custody. We also assessed the adequacy of DOE's oversight of the laboratory's classified document control program.

We performed our work from March 1990 to November 1990 at DOE headquarters, the DOE San Francisco Operations Office of Safeguards and Security located at the laboratory, and the Lawrence Livermore National Laboratory located in Livermore, California. This work was done in accordance with generally accepted government auditing standards.

To determine the extent of missing documents, we reviewed and discussed with laboratory officials the results of the laboratory's 100-percent inventory of classified documents as reported to DOE on June 28, 1990.

To determine the adequacy of accountability controls over secret documents at the laboratory, we reviewed, analyzed, and discussed with DOE and laboratory officials (1) the DOE orders for controlling classified documents and the current contract for managing and operating the laboratory and (2) written laboratory policies and procedures for implementing the DOE orders. We also visited seven document accountability groups, where we interviewed document custodians and audited repositories containing secret documents. The groups were judgmentally selected to represent a cross-section of all of the groups at the laboratory, on the basis of size (number of documents controlled), the type of accountability system used, and the number of missing or unreconcilable documents each group reported as a result of the 100-percent inventory. The purpose of these audits was to identify potential document accountability weaknesses, not to statistically identify or validate the number of missing documents. We sampled 100 percent of a repository's inventory if records indicated that it held less than approximately 100 documents. We sampled only 1 drawer of a repository if records indicated, and our observation confirmed, that the repository held considerably more than 100 documents. The groups visited controlled about 100,000 of the 600,000 accountable secret documents at the laboratory.

Appendix I
Objectives, Scope, and Methodology

To determine the extent of DOE oversight of the laboratory, we interviewed DOE San Francisco Operations Office personnel, reviewed recent DOE Office of Security Evaluation inspection reports, and reviewed San Francisco Operations Office annual security surveys. We also discussed the laboratory's internal audit program with officials from the laboratory's Security Awareness Group.

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