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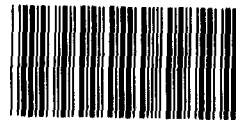
United States General Accounting Office

Report to the Chairman, Committee on
Governmental Affairs, U.S. Senate

July 1991

DEFENSE RESEARCH

Protecting Sensitive Data and Materials at 10 Chemical and Biological Laboratories



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General Accounting Office
Washington, D.C. 20548

National Security and
International Affairs Division

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July 8, 1991

The Honorable John Glenn
Chairman, Committee on
Governmental Affairs
United States Senate

Dear Mr. Chairman:

This report responds to your request that we examine security controls at government and contractor laboratories engaged in the chemical warfare and biological defense research program for the Department of Defense (DOD). In particular, you asked that we examine the adequacy of controls over foreign visitors, technical data, and sensitive chemical and biological materials at DOD and contractor laboratories, as well as the security over the shipment of these materials.

This report summarizes the results of our examination of five DOD and five contractor laboratories and discusses three areas of concern. Our work did not address broader security issues such as government-wide controls over technical data, informal communications among scientists, or U.S. scientists traveling overseas. Except as noted, our work also did not address control weaknesses that might have existed before 1989. As requested, we provided detailed briefings to your staff.

Results in Brief

At the time of our review, security controls at the 10 laboratories we examined and shipping procedures involving the laboratories were generally sufficient to protect sensitive special materials and technical data. However, we noted that some controls should be improved to minimize the chance of compromising sensitive data or materials at the laboratories. Specifically, we found the following:

- The Army's Medical Research and Development Command did not always comply with the DOD requirement that authorization requests for foreign representatives visiting Army facilities be submitted at least 30 days before the proposed visits. The 30-day requirement is based primarily on reciprocity with other countries and the need for coordination and preparation.
- The Chemical Personnel Reliability Program does not (1) check the credit records of individuals assigned to the program or (2) consolidate and report information to properly oversee the program—for example,

the number of individuals in the program, the number disqualified from the program, and the reasons they were disqualified.

- The Chemical Research, Development and Engineering Center has been responsible since 1982 for administering several special access programs—those that strictly control access because of the need for greater security—but did not establish a document accountability system until January 1989. In December 1989, we found that one of the Center's off-site contractors stored some classified material in a safe but did not control it through the document accountability system.

The results of our review are summarized below and discussed more fully in appendix I.

Background

DOD, with the Army as executive agent, administers the chemical warfare and biological defense research program. The chemical side of the program involves research in both offensive and defensive measures, whereas the biological side is restricted by the terms of the 1972 Biological and Toxic Weapons Convention to research on defensive measures.

Most of DOD's chemical and biological defense research is unclassified, and DOD encourages the exchange of scientific research information with other countries. Hundreds of foreign nationals annually visit DOD and contractor laboratories. An Army regulation contains policy and procedures for requesting and approving visits by foreign nationals and for the exchange of information.

Individuals assigned to positions involving access to, or responsibility for, the security of sensitive chemical materials used in military operations must be part of the Army's Chemical Personnel Reliability Program. Army regulations establish procedures for screening and evaluating candidates for the program and for periodically evaluating individuals already assigned.

Physical Controls and Procedures

Security controls and procedures at the 10 research laboratories were generally adequate to protect chemical and biological materials and sensitive information. Double fences, barbed wire, intrusion detection systems, and other physical deterrents protected the DOD buildings housing chemical laboratories. Hazardous materials in DOD and contractor biological laboratories were stored in locked containers in locked rooms, generally with only two individuals having keys or lock combinations. Log-

books showing quantities of materials received and used were maintained.

Shipments and transfers of chemical and biological materials were well documented. The Army's Technical Escort Unit ships chemical agents using military personnel trained to handle hazardous substances.

Advance Approval Requirements for Foreign Visitors

DOD requires that foreign nationals submit visit requests 30 days in advance of planned visits to allow enough time to determine whether approval for the visit should be given and whether the visit would be beneficial to the United States. The Army's Medical Research and Development Command at Fort Detrick, Maryland, did not always adhere to this requirement. In February 1987, the Command identified an increase in the number of unauthorized foreign visitors and a need to comply with Army regulations. In February 1989, the Command advised its offices that of a total of 384 documented foreign visitors, about 20 percent of the requests for visit approvals had been submitted late (giving the Command fewer than 30 days notice). In April 1990, following several unapproved visits, the Command again reminded its offices of the 30-day requirement.

Our review of the records of foreign visitors to the Command from January through June 1990 showed that some authorization requests still were not being submitted to Army headquarters 30 days before the proposed visits. Some visits were approved verbally, less than 30 days before the proposed visit dates, and did not comply with the required formal, written approval. Although Army regulations provide that late requests may be returned without action, we did not identify any requests that were rejected or returned for this reason. The Army is aware of this problem and is taking steps to correct it, such as reminding foreign embassy military attachés of the 30-day requirement.

Screening and Reporting in the Chemical Personnel Reliability Program

The Chemical Personnel Reliability Program has procedures for selecting, screening, and evaluating candidates for the program and for periodically evaluating individuals already in the program. However, the procedures do not include a credit check. Such a check is used in other personnel security investigations. It can identify financial problems or unexplained affluence.

Unlike the Nuclear Weapon Personnel Reliability Program, the chemical program does not require an annual consolidated status report that

shows the number of individuals in the program, the number disqualified from the program, and the reasons they were disqualified. This type of report can reveal trends and problems that require management attention and serve as evaluative input in assessing the effectiveness of the program.

Classified Document Accountability

The Chemical Research, Development and Engineering Center at Aberdeen Proving Ground, Maryland, did not establish a document accountability system until several years after receiving classified information for several of its special access programs. Two of its special access programs have been in existence since 1982 and 1985, but a document accountability system was not established until early 1989. At the time of our review, the system was in place and operating; however, we noted a problem at one of the Center's off-site contractors. At the time of our visit in December 1989, we found classified material stored in a safe that had not been properly marked or included as part of the accountability system. A Center official told us that the material would be marked and added to materials controlled through the contractor's accountability system.

Recommendations

To improve security and oversight of the Chemical Personnel Reliability Program, we recommend that the Secretary of the Army

- establish periodic credit checks for individuals assigned to the program and
- require an annual consolidated status report showing the number of individuals assigned, the number disqualified from the program, and the reasons for disqualification.

Agency Comments and Our Evaluation

DOD generally agreed with the findings and one of two recommendations in a draft of this report. DOD did not agree that the Secretary of the Army should require an annual consolidated status report on the Chemical Personnel Reliability Program. DOD stated that data on individuals in the program is included in the annual chemical surety status reports submitted by Army organizations. Although the data is included in these reports, it is not consolidated and therefore cannot be readily used. Also, the status reports are classified because of other data in them, which further restricts their already limited distribution.

DOD's comments and our evaluation are discussed in more detail in appendix I, and a complete copy of the comments is included as appendix V.

To respond to the request, we reviewed guidance and examined records at Army headquarters, four Army commands, five DOD laboratories, and five contractor laboratories. Our tests included personnel security records, classified documents, and documents supporting proposed foreign visitors to DOD and contractor research facilities. In making our selection of proposed visitors, we focused on potential problem areas, such as visitors from designated and sensitive countries and approval documentation that appeared to be incomplete or untimely. To assess the adequacy of controls over the handling and shipping of chemical and biological materials, we examined logs and related documentation, such as shipping notices and receipts, at the laboratories. Our objectives, scope, and methodology are further discussed in appendix II.

As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from its issue date. At that time, we will send copies to the Secretaries of Defense and the Army. Copies will also be made available to other interested parties on request.

Please contact me on (202) 275-8412 if you or your staff have any questions concerning the report. The major contributors to this report are listed in appendix VI.

Sincerely yours,



Donna Heivilin
Director, Logistics Issues

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Abbreviations

CPRP	Chemical Personnel Reliability Program
DOD	Department of Defense
GAO	General Accounting Office

Protecting Sensitive Information and Materials at Research Facilities

Advance Approval Requirements for Foreign Visitors

Both Department of Defense (DOD) and Army regulations require that a request for visit authorization for a foreign representative be submitted to Army headquarters for approval at least 30 days before a proposed visit to an Army organization, installation, or contractor facility under Army security cognizance. However, the Army Medical Research and Development Command at Fort Detrick, Maryland, did not always comply with this requirement.

Background

The 30-day requirement is based primarily on reciprocity with other countries and to allow enough time to determine whether approval for the visit should be given and whether the visit would be beneficial to the United States. Foreign nationals who want to visit Army installations must submit the request for approval through their embassy. A 1988 Army regulation prescribes policy and procedures for disclosing classified information and authorizing visits to Army installations.¹ In addition to other prescribed controls, the regulation states that a request for visit approval received by Army headquarters less than 30 days before a proposed visit may be returned without action.

Based on our discussions with Army officials and review of the regulation and request for visit approvals, the following is a brief description of headquarters involvement in the approval process. Headquarters personnel review the embassy request for visit approval and make a preliminary determination to approve or disapprove it. They then coordinate the request with the command in charge of the facility or site to be visited. The command and its facility review the request for personal knowledge of the proposed visitor, purpose of visit, benefits to U.S. research programs, and availability of Army personnel on the date of the visit. Their concurrence or nonconcurrence with the proposed visit is communicated to Army headquarters, which notifies the embassy. If the proposed visitor is from a designated or sensitive country, the request is coordinated with the Office of the Assistant Secretary of Defense (International Security Affairs), which interfaces with the Department of State.

The regulation's provisions cover all types of visits by foreign representatives, and these visits may be short-term or long-term. For example,

¹Army Regulation 380-10, "Disclosure of Information and Visits and Accreditation of Foreign Nationals" (July 29, 1988).

they range from a foreign dignitary's 7-hour visit to the Medical Command for a tour of facilities and briefings to a foreign scientist's 12-month assignment to a project at one of the biological laboratories.

The regulation does not require commands to periodically report on their foreign visitors. Consequently, the precise number of visitors for a given year was not available. However, a representative of the Medical Command at Fort Detrick told us that each year there are about 300 to 400 foreign visitors to the Command and its facilities. Over half of its facilities, such as the institutes for aeromedical research and environmental medicine, probably are not involved in research on biological warfare defensive measures.

We reviewed visit documentation supporting 122 proposed visitors to the Command during the period June 1988 through June 1990, including 68 whom we identified as being from designated countries and other sensitive countries that may possess a chemical offensive capability.² These 68 visitors represented about 75 percent of the 91 visitors whom we identified as being from those designated and sensitive countries. At the Chemical Research, Development and Engineering Center at Aberdeen Proving Ground, our review involved 54 proposed visitors, including 15 from designated and sensitive countries (see app. III).

Our tests showed that requests for visitors from designated countries were timely and well-documented. The commands had files which readily allowed monitoring visits, over a period of years, from specific designated countries or individuals from those countries. However, requests for visits from non-designated countries were not always timely or documented in writing.

While most foreign visits require Army headquarters' approval, the regulation provides that the Surgeon General may authorize certain types of visits, such as those involving attendance at an activity officially sponsored by another federal agency. Even so, the regulation prohibits such delegation of approval authority if the foreign representative is from one of the countries identified in the regulation.

²Designated countries are those whose policies are inimical to U.S. interests. These countries are identified in Army Regulation 380-10. Other federal agencies issue designated country listings applicable to their areas of responsibility. For example, the Department of Commerce's listing would apply to export controls.

Lack of Timely Approval

Information we obtained from the Medical Command shows that the lack of timely approval of proposed foreign visitors has been a problem for several years. In April 1990, Command offices were advised of several foreign nationals' visits that had been made without the required 30-day prior approvals, causing the Command headquarters to obtain emergency approvals. The headquarters reminded its offices of the 30-day requirement.

An information paper dated February 12, 1987, refers to a reported increase in the number of unauthorized foreign visitors and the need to comply with Army regulations. Another information paper prepared for distribution to Command offices in February 1989 stated that in 1988, "out of a total of 384 documented foreign national visits to the Command, approximately 20% were late submissions."

Our review of the records of foreign visitors to the Command from January through June 1990 substantiated concerns raised in the April 1990 communication to Command offices. The following two cases illustrate the problem:

- In a January 26, 1990, letter to the Medical Research Institute of Infectious Diseases, a foreign researcher stated his desire to visit the Institute on March 23 or 26, 1990. In a letter dated February 7, 1990, the Institute agreed to the visit and advised the researcher that Army headquarters required a minimum of 30 days to process and clear the request and that he should arrange the request through his embassy in Washington, D.C. The visit was made, but the headquarters office had no record of approval for the request. However, at Fort Detrick a notation on the Institute's request for visit authorization stated that it had been approved on March 2 by an official at the headquarters office. The Institute did not have correspondence from the researcher's embassy to show compliance with the Institute's February 7 instructions.
- A June 18, 1990, Institute memorandum to the Surgeon General's office identified six foreign representatives (all from the same country) who would be visiting the Institute on June 21, 1990, to participate in a conference sponsored by the Medical Research and Development Command. Another June 18 memorandum stated that the Surgeon General's office had verbally approved the visit.

The Army regulation allows its headquarters office to return without action any requests not received 30 days before a proposed visit. We did not identify any requests that had been returned, although we were told that some requests had been returned.

Army officials agreed that authorization requests for foreign visitors had not always been submitted to headquarters 30 days before the visits, but they believed that security had not been compromised and that compliance was improving. They also said that they were taking steps to ensure compliance, including reminding the embassies of the 30-day requirement. Periodic memorandums to foreign military attachés contained such reminders.

Agency Comments and Our Evaluation

DOD agreed that some requests for visit authorization were not submitted for approval as required, but DOD pointed out that some foreign visits between January and June 1990 to the Medical Research and Development Command did not require approval from Army headquarters because the Office of the Surgeon General had been delegated approval authority for certain types of visits. DOD also stated that the Army regulation covering foreign visits was being revised to reflect the delegated authority.

Although certain types of visits do not require approval from Army headquarters, the Command headquarters is supposed to be notified in advance of the visits. According to the Command's April 1990 memorandum, such notification was not made.

Screening and Reporting in the Chemical Personnel Reliability Program

Although the Chemical Personnel Reliability Program (CPRP) has procedures for screening and evaluating candidates for the program and for periodically evaluating individuals already assigned, the procedures do not include a credit check, and the CPRP does not issue an annual status report on individuals in the program. Credit checks can identify financial problems or unexplained affluence that could affect an individual's suitability for the program. Some CPRP requirements are similar to those of the Nuclear Weapon Personnel Reliability Program. However, unlike the nuclear program, the CPRP does not provide an annual consolidated status report that shows the total number of individuals in the program, the number of individuals disqualified from the program, and the reasons for disqualification.

Screening and Evaluation Procedures Do Not Include Credit Checks

The Army's chemical surety regulation establishes procedures for selecting, screening, and evaluating candidates for the CPRP and for continually evaluating individuals in the program.³ Evaluations are required at least once every 5 years for individuals assigned to the CPRP or upon reassignment within the program. The screening and evaluation process includes an interview with the individual, verification of a security clearance and personnel security investigation, a review of the individual's personnel and medical records, and a certification that the individual is suitable for a chemical surety duty position.

The screening and evaluation procedures do provide some assurance that only individuals who are emotionally stable, physically fit, loyal, and trustworthy will be assigned and retained in the chemical surety program. However, because many of the individuals in the program hold secret security clearances, the investigation preceding the granting of the clearance is only a National Agency Check, or a variation of this type of investigation,⁴ which does not include a credit check.

The CPRP screening and evaluation procedures do not call for credit checks of candidates or individuals already assigned to the program. Because of the potential for the unauthorized disclosure of chemical program information or the unauthorized transfer of chemicals themselves, credit checks could be useful in identifying financial difficulties, indifference to or disregard of financial obligations, or unexplained affluence that would warrant a more detailed investigation. The importance of obtaining financial information on individuals in sensitive positions has been identified in reports on espionage and DOD security policies and practices. The DOD Security Review Commission in its November 1985 report on DOD security policies and practices stated that "other indications of possible espionage activities ... include such things as unexplained affluence." The Senate Select Committee on Intelligence in its October 1986 report, Meeting the Espionage Challenge, stated that there is a need for more attention and better access to information on the

³Army Regulation 50-6, "Chemical Surety" (Nov. 12, 1986), describes chemical surety as controls, procedures, and actions that contribute to the safety, security, and reliability of chemical agents and their associated weapon systems throughout their life cycle without degrading operational performance.

⁴Examples of variations are the Entrance National Agency Check (for first-term military enlistees) and the National Agency Check plus written Inquiries. A National Agency Check may include a check of the name, fingerprint, and investigative files of the Federal Bureau of Investigation and a check of the investigative files of the Department of Defense, Office of Personnel Management, and other federal agencies to identify information of a security nature that indicates the need for an expanded investigation of the individual.

finances of persons with access to sensitive information because the most common motivation for espionage is financial gain.

The relevance of financial information on personnel in the CPRP is unknown. However, in another ongoing assignment involving DOD security clearances, a sample of 100 cases showed that 17 individuals had their access to classified information terminated primarily or in part because of financial problems.

Army officials told us that they did not believe that credit checks were needed because the officials had not seen any indication that financial problems were a factor in disqualifying candidates for or individuals already in the program.

Annual Status Reports Do Not Consolidate Data on Individuals

A December 1986 revision to the Army's chemical surety regulation modified the CPRP to more closely align it with the nuclear program. The CPRP is used to identify chemical surety duty positions and provides a means of managing persons assigned to them, including an assessment of the reliability and acceptability of those already assigned or being considered for assignment. The CPRP covers military and civilian personnel and contractor employees.

The nuclear program differs in that DOD components must submit an annual report that is the basis for a consolidated report submitted each year to the Deputy Under Secretary of Defense for Security Policy. The consolidated report shows the number of individuals in the program (military, federal civilian, and contractor) on December 31, the number of individuals disqualified from the program, and the reasons for disqualification.

The Army's chemical surety regulation does not require an annual consolidated status report for the CPRP, but it does require Army organizations with chemical surety material to submit annual surety status reports to the Commander of the Army Nuclear and Chemical Agency.⁵ The regulation prescribes the format and data to be reported. Examples of that data are types of surety material, storage areas, and protective measures. The prescribed report format also includes a section for organizations to report the number of personnel in the CPRP, the number and

⁵The following information and tables on the chemical surety regulation and CPRP were added as a result of DOD's comments on the draft report.

**Appendix I
Protecting Sensitive Information and
Materials at Research Facilities**

reasons for permanent disqualification from the CPRP, and other CPRP data.

Because of the sensitivity of some of the information in these chemical surety status reports, most of them are classified, which restricts their distribution and use. Reported data on the CPRP is unclassified, but it is not consolidated and provided to Army management and other DOD organizations.

We asked Army officials to provide us copies of the annual surety status reports for 1987 to 1989. The officials gave us the 11 reports submitted by individual units for 1989 and told us that similar reports for 1987 and 1988 were not available. On the basis of the reports furnished to us, we compiled statistics for 1989. Table I.1 shows the number of individuals in the CPRP. Table I.2 shows the number of individuals permanently disqualified from the program and the reasons for disqualification.

Table I.1: Individuals in the CPRP (as of December 31, 1989)

Type	Number
Military	306
Civil service	1,809
Contractor	555
Total	2,670

Table I.2: Individuals Disqualified From the CPRP (1989)

Reason for disqualification	Number
Physical or mental disability	20
Alcohol or drug abuse	16
Reliability	7
Poor attitude	6
Nonjudicial punishment	3
Criminal conduct	1
Reason not identified	3
Total	56

Army officials told us that they do not see a need for an annual status report similar to that used in the nuclear program because the chemical program is much smaller and the data could not be used to make comparisons and identify trends. They said that the size of the nuclear program, for example, enabled them to compare alcohol and drug abuse cases among the military services and, possibly, the effectiveness of each service's substance abuse program.

We believe that a report similar to that used in the nuclear program could be useful in evaluating the effectiveness of the program and in identifying trends and problems that require management attention.

Agency Comments and Our Evaluation

DOD agreed with our finding concerning credit checks. However, it said that the use of credit checks in DOD personnel security investigations for secret clearances had been delayed because of a lack of funding. DOD stated that the use of credit checks by the Office of Personnel Management in secret clearance investigations had to be requested and funded by DOD.

DOD's comments addressed the use of credit checks only during personnel security investigations for security clearances and indicated that cost is the major factor precluding their use. Our finding is directed to the screening and evaluation of candidates for the CPRP and subsequent reevaluation of individuals already in the CPRP, because many of the individuals nominated for the CPRP had secret clearances long before their nomination. Even if DOD is unable to implement its program for secret clearances because of funding constraints, CPRP managers could use the services of a private company to provide credit reports for a nominal cost (a small annual fee and an average cost of less than \$5 for each credit report).

DOD also agreed with our finding on the need for an annual status report on the CPRP. However, it said that such a report is already an integral part of the annual chemical surety status reports required by the Army's chemical surety regulation.

While the Army is receiving data on the CPRP from 11 reporting units, the data is not consolidated and furnished to Army management or other DOD organizations. Thus, we reaffirm our recommendation to provide a consolidated report.

Classified Document Accountability

The Chemical Research, Development and Engineering Center at Aberdeen Proving Ground, Maryland, did not establish a document accountability system when it first began receiving classified information for several of its special access programs. Two of its special access programs have been in existence since 1982 and 1985, but a document accountability system was not established until early 1989. At the time of our review, the system was in place and operating; however, we

found a problem at one of the Center's off-site contractors. Some classified material stored in a safe had not been properly marked or added to the accountability system for a special access program at the time of our visit in December 1989.

The chief of the Center's Technical Integration Division told us his group had assumed centralized responsibility for the special access programs when the group became operational in 1987. Before then, the programs were decentralized and the responsibility of other groups at the Center. He said that the programs had generated about 1,000 classified documents and that none had been reported missing, although some might not have been logged in. He also said that an accountability system had not been established earlier because of a lack of staff.

Document accountability systems are used to control and account for classified documents. When a classified document is created or received, a record is established showing the unique identifying number assigned to it, date of origin or receipt, creator, level of classification, and brief description of the document. The record may also indicate the name of the custodian and where the document is stored. If the document is transferred, downgraded, declassified, or destroyed, the accountability record is annotated to show the date and method of disposition. The accountability records are used to verify the existence of the documents.

We tested the Center's document accountability system for four of the programs and found that about 70 classified items had been accounted for and properly marked.

We visited one contractor facility to examine the document accountability system for two special access programs. In testing the system, we selected about 50 items in the document accountability logs and then verified that the items were in two safes. In checking one of the safes, we noticed material from a previous contract that was unmarked (that had no control numbers) and had not been recorded in the document accountability log. After the visit we discussed this matter with the chief of the Technical Integration Division, who told us the items would be added to the accountability system.

The contractor did not have access logs for the two safes before October 1989. Contractor officials told us that the company started keeping access logs after the Defense Investigative Service conducted a security inspection in October 1989. At the time of our visit, the logs

were properly maintained to show the names of individuals who opened the safes and the dates on which they were opened.

**Agency Comments and
Our Evaluation**

Although DOD agreed with our finding, it said that only top secret or sensitive compartmented information documents require formal accountability procedures.

DOD's statement refers only to DOD-wide minimum standards and not to the security requirements of specific programs that are included in security guides. The guides for the special access programs in question require formal accountability for top secret, secret, and confidential information. Furthermore, the programs contained top secret information that, by DOD's regulation, should have been under accountability even if there were no security guides.

Objectives, Scope, and Methodology

The Chairman of the Senate Committee on Governmental Affairs requested that we examine DOD's security controls at government and contractor laboratories engaged in chemical and biological defense research and, in particular, review the adequacy of controls over foreign visitors, technical data, and special materials at DOD and contractor laboratories. He also asked for information on the security over the shipment of sensitive materials.

To accomplish these objectives, we reviewed relevant laws and about 50 directives, regulations, instructions, and manuals; interviewed officials; and examined records at Army headquarters, Washington, D.C., and the following Army commands and laboratories:

- Army Personnel Command, Alexandria, Virginia;
- Army Materiel Command, Alexandria, Virginia;
- Medical Research and Development Command, Fort Detrick, Maryland;
- Medical Research Institute of Infectious Diseases (and laboratory), Fort Detrick, Maryland;
- Medical Research Institute of Chemical Defense (and laboratory), Aberdeen Proving Ground, Maryland;
- Chemical Research, Development and Engineering Center (and laboratory), Aberdeen Proving Ground, Maryland; and
- Test and Evaluation Command (and laboratory), Dugway Proving Ground, Utah.

We also visited the Department of State, Washington, D.C., and the following DOD and contractor laboratories:

- Uniformed Services University of Health Science, Bethesda, Maryland;
- Battelle Memorial Institute, Columbus, Ohio;
- Johns Hopkins University, Baltimore, Maryland;
- SRI International, Menlo Park, California;
- University of Maryland, Baltimore, Maryland; and
- University of Minnesota, Duluth, Minnesota.

The laboratories were judgmentally selected to include government and contractor laboratories conducting chemical and biological research involving classified and unclassified information. The Army installations were selected because they had primary roles in chemical and biological research. The contractor laboratories included facilities in the East, Midwest, and West; at large established institutions and a smaller 2-year medical school; involved in the shipment and receipt of biological and chemical materials; and with special access contracts. As part of the

selection process, we reviewed Army inspection reports on security and safety practices at the facilities. The Army had chemical and biological research and development contracts with about 100 universities, private companies, and other government agencies in 1989.

To assess the adequacy of personnel security controls, we reviewed the Army regulation and procedures governing the Chemical Personnel Reliability Program and Office of Personnel Management and DOD procedures for security clearance reinvestigations. We randomly selected about 90 individuals in the reliability program and compared their security records with the requirements of the program. We also randomly selected about 50 individuals in special access programs and compared their security records with personnel security reinvestigation requirements.

To assess whether classified information is adequately protected, we randomly selected about 120 special access program documents from the document accountability records at the Aberdeen Proving Ground and one contractor facility, verified the existence of the documents in the safes, and examined the documents for proper classification and protective markings. In some cases, we reviewed all applicable documents because of the small number involved. We also judgmentally selected a small number of documents in the safes to ascertain whether the items had been listed in the accountability records. To assess physical security and controls over technical data, we reviewed procedures and observed controls in place.

To assess the adequacy of security controls over foreign visitors to chemical and biological research laboratories, we reviewed DOD and Army policies and procedures and records maintained by Army headquarters, the commands, and the laboratories. We selected and reviewed the documentation supporting 176 proposed visits to DOD and contractor research facilities from June 1988 through June 1990 to ascertain compliance with the regulations. In making our selection, we focused on potential problem areas, such as visitors from designated and other sensitive countries and approval documentation in the central files that appeared to be incomplete or untimely. We also reviewed procedures for handling requests for technical data.

We assessed controls over the handling and shipping of chemical and biological materials by reviewing regulations, interviewing Army officials, visiting five DOD and five contractor laboratories, and examining logs and related documentation, such as shipping notices and receipts.

We identified materials used at each location and observed materials in place.

Limitations on the Scope of Our Work

Except as stated above, our work did not address issues beyond security controls at selected government and contractor laboratories engaged in the chemical warfare and biological defense research program for DOD. We did not address such issues as

- quality of research performed by the laboratories;
- processes used for quality control, such as peer review;
- government-wide controls over technical data;
- government-wide personnel security programs;
- controls over U.S. scientists traveling overseas;
- government-wide controls over foreign investments in U.S. contractors;
- reporting of informal contacts with foreign scientists; and
- computer security.

We have previously issued separate reports on some of the broader issues such as computer security and foreign investments that identified weaknesses in these areas.¹

We did not conduct an independent check of the backgrounds of visitors. However, we did verify that the requests for visit authorization for them were approved by the required approval authorities, such as the Army's Office of the Deputy Chief of Staff for Intelligence.

These limitations did not affect the conclusions stated in this report.

We examined vulnerability assessments for Aberdeen Proving Ground and Fort Detrick and discussed reported incidents with security officials. Because the information is classified, we did not include it in this report.

We conducted our review from January 1989 through April 1991 in accordance with generally accepted government auditing standards.

¹Computer Security: Governmentwide Planning Process Had Limited Impact (GAO/IMTEC-90-48, May 10, 1990) and Foreign Investment: Federal Data Collection on Foreign Investment in the United States (GAO/NSIAD-90-25BR, Oct. 3, 1989).

Foreign Visitor Documentation That GAO Reviewed (June 1988 Through June 1990)

Country	Number of visitors		Total
	Medical Command facilities	Chemical Center facilities	
Australia	1	0	1
Belgium	1	0	1
Canada	2	0	2
China (People's Republic of) ^a	8	2	10
Czechoslovakia ^a	2	0	2
Denmark	3	3	6
France	0	26	26
Federal Republic of Germany	2	2	4
India	1	1	2
Ireland	0	1	1
Israel	28	9	37
Italy	2	0	2
Korea (South)	10	0	10
Liberia	2	0	2
Nigeria	1	0	1
Norway	1	0	1
Peru	1	0	1
South Africa ^a	4	0	4
Sweden	3	3	6
Switzerland	2	0	2
Taiwan	3	3	6
Thailand	11	0	11
United Kingdom	33	4	37
Yugoslavia ^a	1	0	1
Total	122	54	176

Note: Documentation supporting an additional five proposed visitors from China, Union of Soviet Socialist Republics, and South Africa prior to June 1988 or after June 1990 was also reviewed by GAO.

^aDesignated country with policies inimical to U.S. interests, according to Army Regulation 380-10, effective August 29, 1988.

Designated Countries Identified in Army Regulation 380-10, Effective August 29, 1988

Country

Afghanistan
Albania
Angola
Bulgaria
Cambodia
China (People's Republic of)
Cuba
Czechoslovakia
Ethiopia
German Democratic Republic
Hungary
Iran
Iraq
Laos
Libyan Arab Republic
Mongolian People's Republic
Nicaragua
North Korea
Poland
Romania
South Africa
South Yemen
Syria
Union of Soviet Socialist Republics
Vietnam
Yugoslavia

Comments From the Department of Defense



POLICY

THE UNDER SECRETARY OF DEFENSE

WASHINGTON, D. C. 20301-2000

In reply refer to:
I-90/66406

10 JAN 1991

Mr. Frank C. Conahan
Assistant Comptroller General
National Security and International
Affairs Division
U.S. General Accounting Office
Washington, DC 20548

Dear Mr. Conahan:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report entitled--"CHEMICAL WARFARE: Protecting Sensitive Data and Materials at DoD Research Laboratories," dated December 6, 1990 (GAO Code 391625), OSD Case 8459. The DoD generally agrees with the report.

The Department is pleased that the report found security controls at DoD and contractor research laboratories adequate and sufficient and that improvements were found in the DoD classified document accountability program. Specific DoD responses to the findings and recommendations contained in the draft report are provided in the enclosure. The Department also requests that the use of the term "biological agents" in both the GAO draft report and its transmittal letter to the Chairman, U.S. Senate Committee on Governmental Affairs, be replaced with the term "biological materials," as the U.S. no longer maintains biological agents.

The Department recognizes that the protection of sensitive data and materials concerning chemical warfare programs requires constant vigilance and attention to prevent the possibility of potential compromise or loss and will continue to do so to the extent possible. The Department appreciates the opportunity to comment on the GAO draft report.

Sincerely,


Craig Alderman, Jr.
Deputy (Security Policy)

Enclosure

GAO DRAFT REPORT - DATED DECEMBER 6, 1990
(GAO CODE 391625) OSD CASE 8459

"CHEMICAL WARFARE: PROTECTING SENSITIVE DATA AND MATERIALS
AT DOD RESEARCH LABORATORIES"

DEPARTMENT OF DEFENSE COMMENTS

* * * * *

FINDINGS

FINDING A: Controls and Procedures for Protecting Data At DoD Research Laboratories. The GAO reported that the Army is the executive agent for administering the chemical warfare and biological defense research program. The GAO explained that Army regulations contain policy and procedures for requesting and approving visits to DoD and contractor laboratories by foreign nationals and for the exchange of information. The GAO reported that individuals assigned to positions involving access to, or responsibility for the security of sensitive chemical materials used in military operations must be part of the Army Chemical Personnel Reliability Program.

The GAO found that controls and procedures used at research laboratories included various physical deterrents to protect the buildings housing the laboratories. The GAO also found that hazardous materials were stored in locked containers in locked rooms and logbooks showing quantities of materials received were well documented and military personnel were trained to handle hazardous substances. Overall, the GAO concluded that the security controls and procedures at DoD and contractor research laboratories were generally adequate to protect chemical and biological materials and sensitive information. (pp. 2-3/GAO Draft Report)

DOD RESPONSE: Concur.

FINDING B: Foreign Visitors Often Do Not Comply With Advance Notice Requirements. The GAO reported that, both DoD and Army regulations require a request for visit authorization for a foreign representative to be submitted to Army headquarters for approval at least 30 days before a proposed visit to an Army organization, installation, or contractor facility under Army cognizance. The GAO found, however, that noncompliance with these regulations at the U.S. Army Medical Research and Development Command at Fort Detrick, Maryland, has been a continuing problem.

Enclosure

The GAO explained that information obtained from the Medical Command shows that the lack of timely notification of proposed foreign visitors has been a problem for several years. According to GAO, as recently as April 1990, Command offices were advised of several foreign nationals' visits to activities under the jurisdiction of the Surgeon General that had been made without the required 30 day prior approvals. As a result, the GAO pointed out that the Command headquarters obtained emergency approvals, and then reminded offices of the 30 day requirement.

The GAO reported that an information paper, dated February 12, 1987, refers to a reported increase in the number of unauthorized foreign visitors and the need to comply with Army regulations. The GAO added that another information paper, prepared for distribution to Command offices in February 1989, stated that in 1988, out of a total of 384 documented foreign national visits to the Command, approximately 20 percent were late submissions. The GAO found that a review of the records, from January 1990 through June 1990, substantiated concerns raised in the April 1990 communication to the Command offices.

The GAO reported that, although Army regulation allows its headquarters office to return, without action, any requests not received 30 days before a proposed visit, it (the GAO) did not identify any requests that had been returned. The GAO noted, however, that Army officials said that some requests had been returned.

According to the GAO, Army officials agreed that authorization requests for foreign visitors had not always been submitted to headquarters 30 days before the visits, but believed that security had not been compromised, and that compliance was improving. According to the GAO, the Army officials also stated that they were doing everything possible to comply, including reminding the embassies. The GAO added that periodic memorandums to foreign military attaches contained such reminders. (pp. 3-4, pp. 8-10/GAO Draft Report)

DOD RESPONSE: Concur. The DoD would like to point out, however, that some foreign visits to the Army Medical Research and Development Command, between January and June 1990, were not required to be submitted to Headquarters, Department of the Army, thirty (30) days prior to the date of the visit. Headquarters, Department of the Army had delegated approval authority to the Office of the Surgeon General for foreign national visits to its activities under the following conditions:

- a. visits are not sponsored by a foreign embassy;
- b. visits are unclassified;

- c. Headquarters, Department of the Army, is informed of the visit; and
- d. net benefit to the Army exists.

The delegated authority does not apply to visits by foreign nationals of proscribed countries, for example, communist nations, etc.

Visits accepted on short notice (less than 30 days) were those initiated by Army officials and for which net benefits to the Army were accrued. In addition, short notice visits initiated by foreign embassies were also favorably considered when strong justification warranted.

Army Regulation 380-10, "Disclosure of Information and Visits and Accreditation of Foreign Nationals," is being revised to reflect the delegated authority granted to the Office of the Surgeon General.

FINDING C: The Chemical Personnel Reliability Program Does Not Include A Credit Check. The GAO reported that, although the Chemical Personnel Reliability Program has procedures for screening and evaluating candidates for the program and for periodically evaluating individuals already assigned, the procedures do not include a credit check. According to the GAO, credit checks can identify financial problems or unexplained affluence that could affect the suitability of an individual for the program.

The GAO found that screening and evaluation procedures provide some assurance that only individuals who are emotionally stable, physically fit, loyal, and trustworthy will be assigned and retained in the Chemical Surety Program. The GAO cautioned, however, that because many of the individuals in the program hold secret security clearances, the investigation preceding the granting of the clearance is only a national agency check, or a variation of this type of investigation, which does not include a credit check.

The GAO reported that the Chemical Personnel Reliability Program screening and evaluation procedures do not call for credit checks of candidates or individuals already assigned to the program. The GAO explained that, because of the potential for unauthorized disclosure of chemical program information or the unauthorized transfer of chemicals themselves, credit checks could be useful in identifying financial difficulties, or unexplained affluence that would warrant a more detailed investigation.

The GAO found that more than half of the 59 individuals found to be unqualified for the program in 1988 and 1989 were military personnel who had been granted secret clearances on the basis of an Entrance National Agency Check that did not include a credit check. According to the GAO, of the 44 individuals in the program who were subsequently disqualified from the program, 14 had personnel security investigations that were over 5 years old at the time of disqualification, and another 4 had investigations that were over 10 years old.

The GAO explained that the relevance of financial information on personnel in the Program is unknown. The GAO pointed out, however, that in another on-going assignment involving DoD security clearances, for about 10 percent of the 51 individuals whose security clearances had been suspended, financial problems were the reason or part of the reason for the suspension. The GAO noted, however, that financial problems were not cited as a reason for disqualification in any of the 59 cases in the Chemical Personnel Reliability Program. The GAO noted Army officials do not believe that credit checks were needed, because the officials had not seen any indication that financial problems were a factor in disqualifying candidates for or individuals already in the program. (pp. 4-5, pp.10-12/GAO Draft Report)

DOD RESPONSE: Concur. Individuals requiring access to Secret or Confidential classified information are subjected to a National Agency Check or a variation of that type of investigation (first-term military enlistees receive an Entrance National Agency Check and, for civilian employees, a National Agency Check plus Written Inquiries, conducted by the Office of Personnel Management). Components of each investigation are similar and none include a credit check; however, the Office of Personnel Management will conduct a credit check if it is requested and funded by the requester.

A January 1987, revision to DoD 5200.2-R, "DoD Personnel Security Program," added another type of investigation, the DoD National Agency Check plus Written Inquiries, which consists of a national agency check, credit check, and written inquiries to all places of employment of six months or more within the period of investigation. However, implementation of the expanded investigation by the Components has been delayed, due to lack of funding for the Defense Investigative Service, the agency responsible for conducting the investigations.

Since 1987, the Defense Personnel Security Research and Education Center and the Defense Management Data Center have been evaluating the implementation of a fully automated credit check system. The research has involved:

- a) developing a scoring system that distinguishes between

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those with no derogatory credit items and those with increasing amounts of negative credit information; b) exploring the potential for utilizing other data bases (Treasury Enforcement Communications System and Title 31); c) selecting a credit vendor who can provide a more comprehensive credit report at a significantly lower cost; and d) developing a credit report that is easier to read. When the analysis of the automated credit check system is completed, it may become a standard part of the investigative scope for secret clearances as early as FY 1992.

In addition, an element common to all subjects of DoD investigations is that both a local records check and a check of the Defense Central Index of Investigations records must be conducted. The local records check is a review of local personnel, post military police, medical records, and other security records, as appropriate. The Defense Clearance and Investigations Index is an index of personal names and impersonal titles that appear as subjects of incidents in investigative documents held by criminal, counterintelligence, fraud, and personnel security investigative activities of the Defense Investigative Service, the Defense Criminal Investigative Service, and the National Security Agency. Taken together, those checks should be expected to reflect information concerning an individual's financial status during the clearance adjudication process.

FINDING D: The Chemical Personnel Reliability Program Does Not Issue Annual Status Reports. The GAO reported that a December 1986, Army revision to the chemical surety regulation modified the Chemical Personnel Reliability Program to more closely align it with the nuclear program. The GAO added that the program is used to identify chemical surety duty positions and provides a means of managing persons assigned to them, including an assessment of the reliability and acceptability of those already assigned or being considered for assignment. The GAO explained that the Chemical Personnel Reliability Program covers military and civilian personnel and contractor employees.

The GAO observed that the nuclear program differs in that DoD Components must submit an annual report showing the number of individuals in the program (military, civilian, and contractor) on December 31, the number of individuals disqualified from the program, and the reasons for disqualification. According to the GAO, the six basic categories identified on the standard reporting form as reasons for disqualification are alcohol abuse, drug abuse, negligence or delinquency in performance, military or civilian convictions or a pattern of contemptuous attitude

toward law or authority, physical or mental incompetency, and poor attitude or lack of motivation.

The GAO reported the Army chemical surety regulation does not require an annual status report for the Chemical Personnel Reliability Program. According to the GAO, if such a report were required, the necessary data probably would be compiled from the Army Form 3180, "Personnel Screening and Evaluation Record." The GAO explained the form contains a record of the screening of personnel and medical records and the personnel and medical officers' determinations that the individual is or is not qualified for assignment to the Chemical Personnel Reliability Program. The GAO also explained that the form contains a certification that the individual has been briefed about chemical duty responsibilities. The GAO added that another section of the form is used to record disqualifications from the program and the reasons.

The GAO reported that, at the Army Personnel Command, it requested copies of the forms that contained disqualification determinations made in 1988 and 1989. The GAO found that, on the basis of the forms furnished, 15 candidates for the Chemical Personnel Reliability Program had been determined to be unqualified and 44 individuals already in the program were disqualified during the two-year period.

The GAO observed that Army officials do not see a need for an annual report similar to that used in the nuclear program, because the chemical program is much smaller and the data could not be used to make comparisons and identify trends. According to the GAO, Army officials stated that the size of the nuclear program, for example, enabled them to compare alcohol and drug abuse cases among the military services and, possibly, the effectiveness of the program and in identifying trends and problems that require management attention. (pp. 6-7, p. 10, pp. 13-15/GAO Draft Report)

DOD RESPONSE: Partially concur. The DoD agrees that there is a need for an annual status report concerning the Chemical Personnel Reliability Program. However, the finding in the GAO draft report is technically inaccurate, since such status reporting is, in fact, already an integral part of the annual chemical Surety Status Report required by paragraph 1-4, Army Regulation 50-6, "Chemical Surety," dated November 1986.

FINDING E: Improvements Made In The Document Accountability System. The GAO reported the Chemical Research, Development, and Engineering Center did not establish a document accountability system when it first received classified information for several of its special access

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programs. According to the GAO, two of the Center's special access programs have been in existence since 1982 and 1986, but a document accountability system was not established until early 1989. The GAO pointed out that, at the time of its review, the system was in place and operating properly, with one exception. The GAO found that one of the Center's off-site contractors had a document accountability system for two special access contracts, but some classified material stored in a safe had not been properly marked or added to the accountability system, as of December 1989.

The GAO explained that document accountability systems are used to control and account for classified documents. The GAO further explained that, when a classified document is created or received, a record is established showing the unique identifying number assigned to it, date of origin or receipt, creator, level of classification, and brief description of the document. The GAO added that the record may also indicate the name of the custodian where the document is stored. According to the GAO, if the document is transferred, downgraded, declassified, or destroyed, the accountability record is annotated to show the date and method of disposition. The GAO explained the accountability records are used to verify the existence of the documents. (p. 2, p. 5, pp 15-17/GAO Draft Report)

DOD RESPONSE: Concur. It should be noted, however, that only Top Secret or Sensitive Compartmented Information documents require formal accountability procedures.

* * * * *

RECOMMENDATIONS

RECOMMENDATION 1: The GAO recommended that the Secretary of the Army establish periodic credit checks for individuals assigned to the Chemical Personnel Reliability Program. (p. 5/GAO Draft Report)

DOD RESPONSE: Partially concur. Beginning in FY 1989, the DoD initiated the Secret Periodic Reinvestigation Program for all persons whose National Agency Check/Entrance National Agency Check was more than 10 years old. The scope of that periodic investigation consists of a National Agency Check and a credit check; however, funding constraints and investigative requirements of higher level clearances preclude reducing the duration of these periodic reviews for holders of secret clearances based upon a National Agency Check investigation.

In addition, a key element in the Chemical Personnel Reliability Program is the continuing evaluation process, which requires all personnel to report to the certifying

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official (commander, senior civil service supervisor, or contractor officer's representative, as appropriate) any change in attitude, behavior, or medical conditions that may affect an individual's judgment or reliability. Based upon this day-to-day continual observation process, financial problems should be reported to the certifying official for appropriate action.

Until such time as additional funds are made available, or a direct relationship between an individual's financial problems and subsequent disqualification from the Chemical Personnel Reliability Program can be made, this recommendation cannot be fully implemented.

RECOMMENDATION 2: The GAO recommended that the Secretary of the Army require an annual status report from the Chemical Personnel Reliability Program showing the number of individuals assigned, the number disqualified from the program, and the reasons for disqualification. (p. 5/GAO Draft Report)

DOD RESPONSE: Partially concur. The requirement for annual Chemical Personnel Reliability Program status reporting already exists within the context of the annual Chemical Surety Report which is reviewed by Army headquarters (see the DoD response to Finding D.) Since the information recommended by GAO is already contained in the Annual Surety Report, it is the DoD position that it does not need to be reported separately from other chemical surety data.

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