



UNITED STATES GENERAL ACCOUNTING OFFICE  
WASHINGTON, D.C. 20548

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NATIONAL SECURITY AND  
INTERNATIONAL AFFAIRS DIVISION



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FEBRUARY 29, 1984

The Honorable Vic Fazio  
House of Representatives

Dear Mr. Fazio:

Subject: Status of the Department of Defense's  
Installation Restoration Program at  
Mather Air Force Base and Sacramento  
Army Depot (GAO/NSIAD-84-56)

In response to your request of November 17, 1983, we have made a limited review of the status of the Department of Defense's (DOD's) Installation Restoration Program (IRP) at Mather Air Force Base (AFB) and Sacramento Army Depot, both in the Sacramento area of California. A detailed evaluation of IRP will be included in our overall DOD-wide review.

In summary, the IRP work at Mather AFB began in January 1982 with a records search to identify hazardous waste disposal sites. In June 1982 a report was issued which identified 20 disposal sites as having a potential for contaminant migration. Additional work to determine the types and quantities of contaminants began in September 1982 and is ongoing.

IRP work at the Sacramento Army Depot identified hazardous waste disposal sites in a December 1979 report. The Army concluded its IRP work at the depot in November 1981 and issued a report addressing the potential for environmental pollution on this installation. However, because state and local environmental regulatory agencies raised questions about the report, the Army has resumed some additional IRP work.

BACKGROUND

IRP is a DOD program, started in 1975 by the Army, to (1) identify and evaluate suspected problems associated with past hazardous waste disposal sites at military bases and (2) control the migration of hazardous environmental contamination from these sites. The program is divided into four phases. Phase I, a records search, identifies and ranks past hazardous waste disposal sites that might pose a threat to public health or the environment. Phase II, a confirmation study, determines the types and quantities of contaminants contained in the sites.

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Phase III develops a technical base upon which to prepare a comprehensive contaminant control plan for problems requiring remedial action. Phase IV is the operations phase, which includes the design, construction, and operation of pollution abatement facilities and the completion of remedial actions.

#### OBJECTIVES, SCOPE, AND METHODOLOGY

Our objective was to determine the status of the IRP at Mather AFB and Sacramento Army Depot. We met with installation officials and made a limited review of files to determine the status of IRP work to date. We obtained copies of the various IRP reports. However, we did not evaluate the adequacy of the IRP work done at each installation because we plan to do this during our overall review of the DOD-wide IRP. Therefore, we did not obtain agencies' comments on the information contained in this interim report.

#### MATHER AIR FORCE BASE

Mather AFB is located approximately 12 miles east of Sacramento, California. Major industrial operations that generate hazardous chemical and other wastes have been ongoing at the base since 1941. These industrial operations have generated varying quantities of waste oils, solvents, and cleaners. Prior to 1974, these hazardous wastes were frequently dumped in base disposal sites.

Phase I of the base's IRP began in January 1982 and a report, issued in June 1982, identified the following major concerns.

- Water quality analyses showed low levels of trichloroethylene<sup>1</sup> in base wells and private wells west of the base.
- Twenty sites on base were identified as having a potential for contaminant migration, three of these were considered as having high potential.
- Two off-base industrial areas (Aerojet-General and McDonnell Douglas) may be partly responsible for the trichloroethylene in the groundwater beneath the base.

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<sup>1</sup>Trichloroethylene, a common solvent used in degreasing operations, is one of a number of hazardous waste materials that have been generated on base.

The phase I report was provided to the Central Valley Regional Water Quality Control Board and the State Department of Health Services.

Phase II was performed in two parts. The first part began in September 1982 when a contract was awarded to

- determine the approach to be utilized in assessing the disposal sites identified in phase I,
- define a work plan to implement this approach, and
- estimate the associated cost.

A final report on the first part was issued in January 1983. The second part of phase II began when a contract was awarded in September 1983 to conduct actual sampling and analysis to verify the presence and, if possible, the extent of movement of contamination. An estimated completion date has not been established for this work.

Prior to implementing the second part of phase II, Mather officials asked the Central Valley Regional Water Quality Control Board and the State Department of Health Services to review and comment on the proposed work plan. These regulatory officials have reviewed the plan and discussions with Mather officials have continued through January 1984 on various aspects of the testing methodology to be used.

#### SACRAMENTO ARMY DEPOT

Sacramento Army Depot is located within the corporate limits of the City of Sacramento, California. Phase I of the depot's IRP was conducted during 1979 and a report was issued in December 1979. The report identified activities which could have generated the contamination. Suspected problem areas included operations that (1) released cyanide solutions from metal plating operations into a leach field, (2) treated sanitary and industrial wastes in four oxidation lagoons, (3) destroyed refuse, oil, grease, radium paint, and plating waste in two burn pits, (4) burned batteries in an abandoned well, and (5) may have buried radioactive radar parts and radium-containing components. Contamination was also anticipated in several areas where oil and waste spills had been reported.

Phase II of the IRP at the depot began in September 1980 and ended in November 1981 when a report was issued. The objective of this work was to determine whether toxic and hazardous waste contamination was migrating, or had the potential for migrating, beyond the boundaries of the depot in amounts which presented potential environmental hazards. On the basis of the phase II

work, the Army decided that no further IRP phases at the depot were warranted.

The phase II report was given to the Central Valley Regional Water Quality Control Board in January 1982 and a meeting was held between Army officials and the Board in February 1982. At this meeting, the Board raised some questions regarding the phase II report contents and the methodology used. The Army responded to the Board's concerns in July 1982. The Board followed up on the Army's response in a November 1982 letter stating that while the July response addressed some of the Board's concerns, there were still several disposal sites, which were discussed at the February 1982 meeting, in need of investigation by sampling and resampling. In December 1982, the Army wrote to the Board and requested more specifics on what the Board required.

On September 30, 1983, representatives of the Army, the Board, and the California Department of Health Services met to discuss the concerns of Board and Health Services officials with regard to the open questions of pollutant investigation at the depot. In an October 6, 1983, letter, the Board asked the Army to submit the parameters, locations, and sampling and analytical techniques which would be included in a planned sampling program so that the Board could comment before monitoring was done. Also, it provided procedures to be employed by the Army to sample groundwater in the monitoring wells.

Although basically satisfied with its phase II study, the Army

- had arranged in late November 1983 to perform additional independent groundwater sampling and analysis study at the depot,
- will utilize the services of an independent civilian consultant to assess the results and methodology of the reports and to determine the validity of the Board's concerns, and
- will continue to determine the extent of the soil's contamination at the depot with the view of either removing or mitigating the contamination.

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We trust that this information will be satisfactory to your needs. As indicated previously, we will provide you a copy of the final report that results from our overall review of DOD's Installation Restoration Program.

Sincerely yours,

A handwritten signature in black ink, reading "Frank C. Conahan". The signature is written in a cursive style with a large, prominent "F" and "C".

Frank C. Conahan  
Director