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The Hazardous Waste Remedial Actions Program:
Integrating Waste Management

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by

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OVERVIEW

The Hazardous Waste Remedial Actions Program (HAZWRAP) was recently established by the Department of Energy's (DOE) Assistant Secretary for Defense Programs (ASDP). The goal of HAZWRAP is to serve as a focal point and integrate Defense Programs' (DP's) responses to the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA). This goal is to be achieved by providing DP-wide planning recommendations and technical support to the ASDP, and by working toward a uniform system for the management and technical conduct of hazardous waste remedial actions.

The major near-term objectives of HAZWRAP are to:

- o Provide technical support in the identification and correction of CERCLA- and RCRA-related deficiencies at DP field sites.
- o Plan and recommend alternatives for implementing a structured remedial action program to ensure that DP sites achieve compliance with applicable regulatory requirements of hazardous and mixed wastes while protecting public health and safety and the environment.
- o Conduct budgetary management and analysis, integrated scheduling and planning, and technology demonstration to support long-term cost-effective remedial action activities.
- o Provide an information system to facilitate DP-wide communication and dissemination of hazardous waste information and technology.
- o Coordinate activities with other DOE offices, such as the Office of the Assistant Secretary for Environment, Safety and Health, to ensure that DP's remedial actions conform to overall Departmental policy on environmental compliance and management.

PARTICIPATING ORGANIZATIONS

The functioning of HAZWRAP involves the participation of many organizations representing DOE's Headquarters, Operations Offices, and contractors. The organizational relationships are illustrated in Figs. 1 and 2.

DOE Headquarters: The Office of Defense Waste and Transportation Management (DWTM), under the ASDP, is responsible for defense waste management. The Hazardous Waste and Remedial Actions Division of DWTM directs the HAZWRAP. This Division provides broad program and policy guidance and establishes the program budget.

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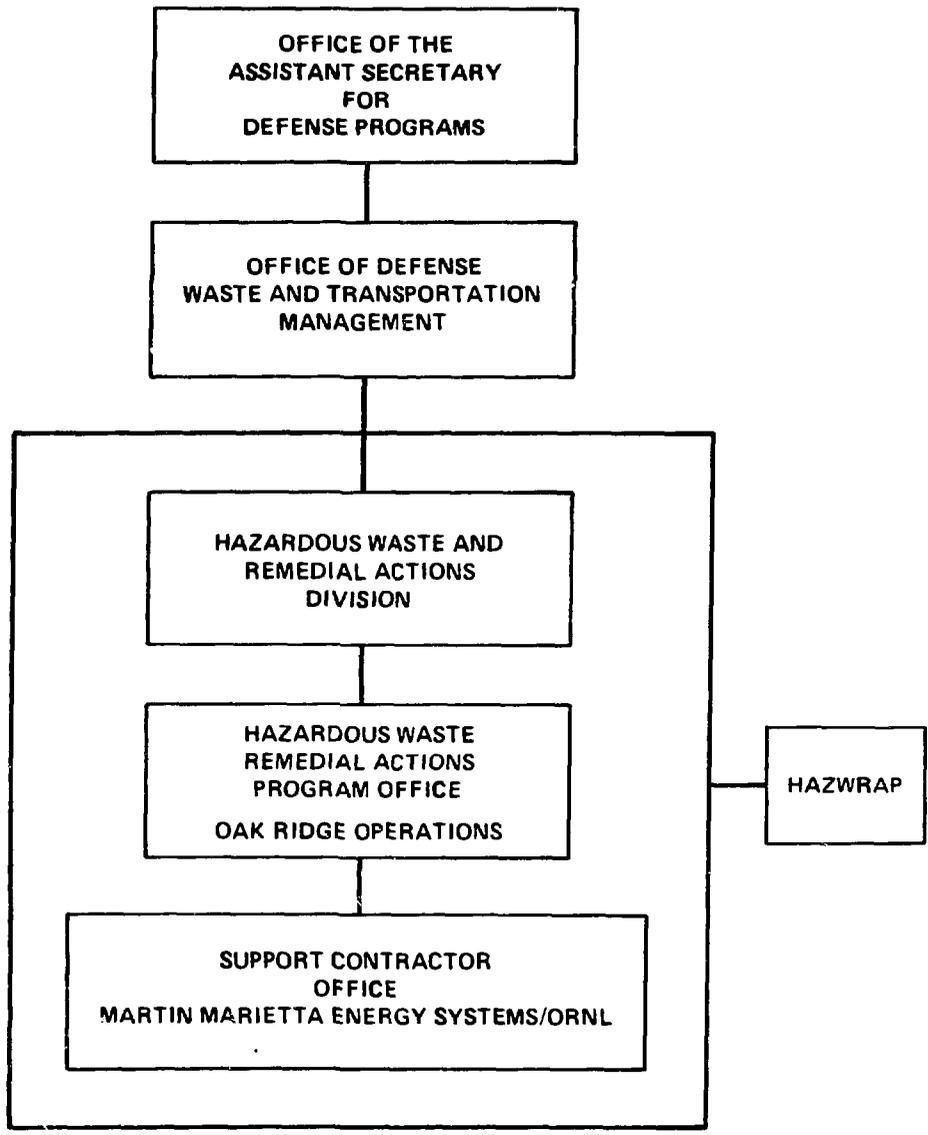


Figure 1. Organizational Relationships of HAZWRAP

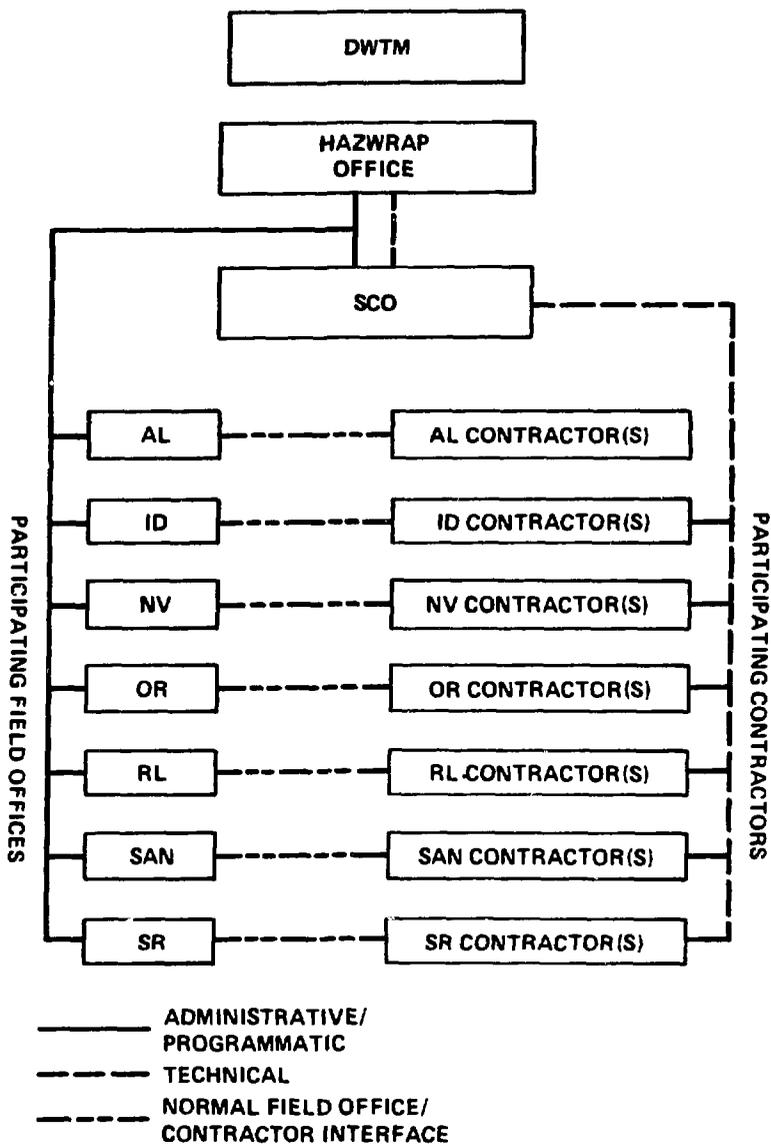


Figure 2. Interfaces Between HAZWRAP and the Field Offices

Hazardous Waste Remedial Actions Program Office: The DOE Oak Ridge Operations Office (ORO) has been delegated the responsibility of being Lead Field Office for HAZWRAP. ORO conducts and manages the Program in accordance with the policy and guidance provided by DWTM. With input from the other Operations Offices, ORO develops, recommends, and justifies the program and budget to achieve Program objectives, coordinating administrative and programmatic matters with the other field offices.

Participating Field Offices: Six of the remaining DOE Operations Offices (Albuquerque, Idaho, Nevada, Richland, San Francisco, and Savannah River) administer DP facilities. These Operations Offices oversee their respective contractors in their execution of tasks and projects. The participating field offices provide budget recommendations to ORO and its Support Contractor Office (SCO) in preparing integrated Program reports.

Support Contractor Office: Martin Marietta Energy Systems, Inc., is the lead contractor organization for HAZWRAP, reporting to ORO. The HAZWRAP SCO is housed at the Oak Ridge National Laboratory in Oak Ridge, Tennessee. The SCO provides technical support to the Program, in which capacity the SCO monitors programmatic activities and overall Program progress. The SCO is also responsible for preparing and maintaining the HAZWRAP Program Plan.

Participating Contractors: The DP site contractors are responsible to their respective Operations Offices for executing assigned tasks and projects and for interfacing with HAZWRAP in technical matters. The contractors implement the portions of the Program assigned to them and keep HAZWRAP advised of technical problems and proposed solutions.

PROGRAM ACTIVITIES

There are four Program components under HAZWRAP, each of which conducts major activities.

Remedial Action Project Review, Support, and Management. The initial activity in this component of HAZWRAP consisted of development of a decision model to rank proposed FY 1988 remedial action capital projects. This model uses a multivariable, linear, weighted scoring method to make value and benefit assessments of each proposed project. An extensive information-gathering and verification effort was required to develop the data necessary to implement this decision model. The setting of priorities is necessary because of a limited construction budget, and HAZWRAP's priority recommendations would represent an independent source of analysis for planning. This program component also provides technical support to the DP Program Offices and field organizations in identifying and correcting deficiencies in regulatory compliance.

In the future, the HAZWRAP could become more directly involved in the management of some hazardous waste remedial action projects, particularly CERCLA-related projects. If so, the HAZWRAP would fulfill such a role in a manner very similar to the approach currently taken by the Surplus Facilities Management Program (SFMP), which is responsible for the decontamination and decommissioning of surplus radioactively contaminated facilities. As is the practice in the SFMP, direct management would entail transfer of project accountability from an Operations Office to HAZWRAP. For this transfer to occur, the responsible field office would first have to identify the need for the project and submit a request for transfer to HAZWRAP. The request would have to be accompanied by documentation consisting of a report that identifies and describes the proposed remedial action. This report would be evaluated by the HAZWRAP Office, with technical assistance from the SCO, and the HAZWRAP Office's recommendations on acceptance of the project into the Program would be provided to DWTM.

Upon acceptance, DWTM would prepare for each project a memorandum of agreement that would identify funding responsibilities, schedules for implementing the agreement, and any administrative or contractual requirements. Accepted projects would then be incorporated into the HAZWRAP Program Plan. For projects assigned to HAZWRAP, funds would flow from

DWTM directly to the Operations Offices, which would handle contracting and supervision of all activities performed at project sites. The role of HAZWRAP would be primarily to evaluate projects for their acceptability as part of the Program, conduct project planning in cooperation with the Operations Offices and their contractors, and establish Program priorities for the expenditure of funds and actual performance of remedial actions.

Once a project became part of the Program, a detailed planning process would begin. This planning process would be conducted according to a standard procedure established by HAZWRAP and would be performed by the project site contractor, with the cooperation and approval of the contractor's Operations Office and HAZWRAP. The resulting project plan would include, among other items, a list of maintenance and monitoring procedures the contractor would perform while awaiting project initiation; a description of the waste treatment or disposal technology identified by the contractor as being appropriate for the necessary remedial action; an identification of any associated technical problems, uncertainties, research and development (R&D) requirements, or special facilities and equipment needed; and a cost estimate and schedule for the project. The final plan would then become the formal guidance for a particular HAZWRAP project.

Technology Adaptation. It is the intent of the HAZWRAP to assure that program participants are kept abreast of advancements in waste treatment and disposal technology, that duplication of R&D efforts is avoided, and that new or modified technology is shared among participants. The technology adaptation portion of the Program may involve improvement of the efficiency of technologies already in use, adaptation of technology from other sectors, or development of new technology where none currently exists. In the past, the HAZWRAP has supported numerous small technology adaptation projects at various DOE facilities. Currently, efforts are focused more strongly on identifying innovative technologies available from the private sector that can be demonstrated on the unique waste streams produced by the facilities in the DP system.

Information System. The Information System component provides (1) specialized data bases on hazardous and mixed waste technology, (2) data analysis, (3) document preparation and control services, and (4) a computerized electronic mail system linking the DOE organizations. The data bases serve as a major information repository on hazardous and mixed waste streams, technologies, site identification and assessment, DOE resources, private sector vending services for waste management, remedial action projects, and more. The paper by C. S. Fore in these proceedings will cover the Information System, known as the DOE Waste Information Network, in further detail.

Strategic Alternatives Study. Some RCRA- and CERCLA-related concerns are shared by multiple sites in the DP system and by other sites in the DOE system as a whole. Remedial actions for such shared concerns could therefore be effectively addressed on a regional, or even a national, planning basis. The final Program component is, therefore, a major study of waste management alternatives that attempts to deal with the DOE system by taking a "corporate" approach. The Strategic Alternatives Study, which is now ongoing at the Oak Ridge National Laboratory, will examine various strategic options on a local, regional, and national basis. It will evaluate the potential role of concepts such as waste minimization, system internalization, and centralized vs decentralized waste management, to establish a foundation for an integrated long-term strategy. A review of potential demonstration projects to support the strategic approach that DF ultimately selects will also be conducted in the future. Should a demonstration project be needed, the HAZWRAP will coordinate the development and communication of such needs to the ASDP.

SUMMARY

The Hazardous Waste Remedial Actions Program was established to integrate Defense Programs' activities in hazardous and mixed waste management. The Program currently provides centralized planning and technical support to the Office of the Assistant Secretary for Defense Programs. More direct project management responsibilities may be

assumed in the future. The Program, under the direction of the ASDP's Office of Defense Waste and Transportation Management, interacts with numerous organizational entities of the Department. The Oak Ridge Operations Office has been designated as the Lead Field Office. The Program's four current components cover remedial action project identification and prioritization; technology adaptation; an information system; and a strategy study for long-term, "corporate" project and facility planning.