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Title/Subtitle (Testimony Titles Are Bracketed) — **Hazardous Waste: Status of Private Party Efforts To Clean Up Hazardous Waste Sites.** RCED-86-65FS; B-221269. December 27, 1985. Released January 28, 1986. 2 pp. plus 2 appendices (7 pp.). *Fact Sheet* to Rep. James J. Florio, Chairman, House Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-86-123, May 6, 1986, Accession Number 130081.

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Type of Document — *Fact Sheet*

Addressee — Rep. James J. Florio, Chairman, House Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee

Author — Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division

GAO Issue Area — **Issue Area:** Environment: Assessing EPA's Cleanup of the Worst Abandoned Hazardous Waste Sites (6803).

GAO Contact — **Contact:** Resources, Community, and Economic Development Division.

Budget Function (Code Numbers in Parentheses) — **Budget Function:** Natural Resources and Environment: Pollution Control and Abatement (304.0).

Agency/Organization Concerned — **Organization Concerned:** Environmental Protection Agency.

Congressional Relevance — **Congressional Relevance:** *House* Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; *Rep.* James J. Florio.

Legislative Authority — **Authority:** Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

Abstract — **Abstract:** In response to a congressional request, GAO reviewed the Environmental Protection Agency's (EPA) compliance monitoring of responsible party settlements for cleanup at priority hazardous waste sites and prepared a fact sheet summarizing its findings.

Findings/Conclusions — Findings/Conclusions: EPA has the authority to compel parties responsible for hazardous site conditions to either perform cleanups themselves or reimburse the government for cleaning up the site. GAO: (1) obtained information on the number, type, and status of responsible party cleanup activities at sites which were designated as the nation's worst; (2) obtained from EPA the estimated value of settlements reached and the estimated amount spent at those sites; and (3) verified . . . .

125931

Return of Spent Nuclear Fuel From Foreign Research Reactors to the United States. RCED-85-47; B-217124. December 13, 1984. 9 pp. plus 2 enclosures (3 pp.). *Report* to Rep. Richard L. Ottinger, Chairman, House Committee on Energy and Commerce: Energy Conservation and Power Subcommittee; by Ralph V. Carlone, (for J. Dexter Peach, Director), Resources, Community, and Economic Development Division.

Issue Area: Energy: Other Issue Area Work (6491); Transportation: DOT Effectiveness in Managing Its Safety Enforcement Program (6601).

Contact: Resources, Community, and Economic Development Division.

Budget Function: National Defense: Atomic Energy Defense Activities (053.0).

Organization Concerned: Department of Energy; Nuclear Regulatory Commission; Department of Transportation; International Atomic Energy Agency; Department of Energy: Savannah Nuclear Power Station; Department of Energy: Idaho National Engineering Laboratory.

Congressional Relevance: *House* Committee on Energy and Commerce: Energy Conservation and Power Subcommittee; *Rep.* Richard L. Ottinger.

Abstract: Pursuant to a congressional request, GAO reviewed the reprocessing of spent nuclear fuel returned to the United States from foreign countries, focusing on: (1) the amount of spent fuel that has been and is projected to be received from foreign countries; (2) who has title to and responsibility for such fuel while it is in transit; (3) the agencies responsible for protecting the public from hazards related to the transportation and reprocessing of such fuel; (4) federal and local planning for accidents involving the transportation of spent fuel; and (5) the final disposition of reprocessed fuel.

Findings/Conclusions: GAO found that: (1) through December 1983, about 1,500 kilograms of spent fuel had been returned to the United States for reprocessing; (2) the size and number of future shipments is dependent on the availability of commercial fuel reprocessing in foreign countries; (3) all of the spent fuel received in the United States is reprocessed at one of two plants operated by the Department of Energy (DOE); (4) foreign countries retain title to spent fuel until it is delivered to the DOE plants; and (5) depending on the circumstances surrounding an accident involving spent fuel, liability would rest with either the owner of the fuel, the owner's agent, or the contract carrier shipping the fuel. GAO also found that: (1) the Nuclear Regulatory Commission and the Department of Transportation (DOT) are responsible for promulgating regulations for the safe transportation of spent fuel; (2) shipments originating in foreign countries must also conform to guidelines issued by the International Atomic Energy Agency; (3) inspections of spent fuel shipments are performed by DOT and DOE; (4) only one of the states contacted by GAO conducts inspections of spent fuel shipments; and (5) most of the states reviewed and both reprocessing plants had emergency response teams and plans for dealing with radiological accidents. In addition, GAO found that the uranium extracted from spent fuel is used to irradiate materials used in the production of plutonium and other radioactive metals.

125996

Department of Energy's Initial Efforts To Implement the Nuclear Waste Policy Act of 1982. RCED-85-27; B-202377. January 10, 1985. 66 pp. plus 9 appendices (19 pp.). *Report* to Congress; by Charles A. Bowsher, Comptroller General. Refer to Testimony, March 5, 1985, Accession Number 126343; Testimony, March 21, 1985, Accession Number 126494; Testimony, November 6, 1985, Accession Number 128370; RCED-86-42, October 31, 1985, Accession Number 128514; RCED-86-154FS, April 30, 1986, Accession Number 129833; RCED-87-48FS, November 5, 1986, Accession Number 131594; and RCED-86-86, January 31, 1986, Accession Number 129261.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404); Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).

Organization Concerned: Department of Energy; Department of Energy: Office of Civilian Radioactive Waste Management.

Congressional Relevance: *House* Committee on Appropriations: Energy and Water Development Subcommittee; *House* Committee on Interior and Insular Affairs; *House* Committee on Energy and Commerce; *Senate* Committee on Appropriations: Energy and Water Development Subcommittee; *Senate* Committee on Energy and Natural Resources; Congress.

Authority: Nuclear Waste Policy Act of 1982 (42 U.S.C. 10101). West Valley Demonstration Project Act (42 U.S.C. 2021a). 10 C.F.R. 960. 48 Fed. Reg. 5458. 48 Fed. Reg. 16590.

Abstract: GAO reviewed the Department of Energy's (DOE) efforts to implement the Nuclear Waste Policy Act in the areas of: (1) identifying waste disposal sites; (2) financing the waste disposal program through user fees; and (3) establishing an organization to carry out the program.

Findings/Conclusions: GAO found that DOE met its statutory milestones for notifying the affected states that it identified repository locations for further evaluation. In addition, it completed the final rulemaking action to incorporate siting guidelines into the Code of Federal Regulations. However, DOE does not expect to meet the statutory deadline dates for key decisions in the siting of the first repository because of complexities encountered in preparing required environmental evaluations and testing delays. DOE estimates that the total program costs over the next 50 years will be more than $20 billion; however, DOE plans for users of the sites to pay the costs. DOE established payment procedures for collecting ongoing and one-time fees from the users of the repositories, and had entered into 70 user contracts by June 1983. Ongoing user fees are expected to be the major long-term source of program revenue. However, DOE has not yet established fees for the reprocessed high-level wastes produced by defense programs and a demonstration program maintained by New York. GAO found that DOE may be able to accelerate millions of dollars in payments from anticipated users of its waste disposal services by accelerating payment periods and raising interest rates. Finally, GAO found that DOE activated the headquarters office for the program, but the new office lacked direct authority to control the field staffs executing the program.

Recommendation To Agencies: The Secretary of Energy, in exercising his discretionary authority as custodian of the Nuclear Waste Fund, should fully evaluate ways to more promptly collect fees from all generators and owners of highly radioactive materials in the United States. This evaluation should, at a minimum, consider the possible ways to more promptly collect fees discussed in this report. The Secretary of Energy should decide what is an appropriate fee to charge the federal government and New York for the disposal of high-level wastes.

126028

The Environmental Protection Agency Should Better Manage Its Use of Contractors. RCED-85-12; B-217137. January 4, 1985.

Released January 22, 1985. 44 pp. plus 1 appendix (8 pp.). *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by Charles A. Bowsher, Comptroller General. Refer to RCED-87-68FS, January 12, 1987, Accession Number 132154; and RCED-88-182, July 29, 1988, Accession Number 136756.

Issue Area: Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Senate* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *Senate* Committee on Environment and Public Works; *Rep.* John D. Dingell.

Authority: Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Toxic Substances Control Act. Small Business Act. OMB Circular A-76. OMB Circular A-120.

Abstract: Pursuant to a congressional request, GAO discussed the Environmental Protection Agency's (EPA) use of contractors to support its programs.

Findings/Conclusions: GAO found that EPA has not: (1) monitored contractor activities to ensure that performance remains cost-effective; or (2) performed reviews to ensure that contractor employees are not establishing policy or performing other types of work traditionally reserved for federal employees. About 88 percent of EPA contracts are cost-reimbursable, which provides EPA maximum flexibility in accomplishing program objectives, but offers limited incentive for the contractor to control costs. GAO believes that EPA is missing opportunities to control costs through the increased use of fixed-price contracts. GAO also noted that EPA, contrary to its regulations, has directed contractors to perform work outside of the scope of their contracts and to award sole-source subcontracts to firms selected by EPA.

Recommendation To Agencies: The Administrator, EPA, should, to increase the agency's efficiency in using contractors and federal employees to comply with Office of Management and Budget (OMB) Circular A-76, establish procedures for monitoring contracts for cost-effectiveness. If contracts are determined not to be cost-effective, EPA should follow OMB Circular A-76 guidelines and look for more efficient contracting opportunities and/or prepare a cost analysis to determine if it would be more appropriate to do the work in-house with government employees. The Administrator, EPA, should take the necessary actions to increase the priority given to procurement operations. Among other things, this would include issuing directives which reinforce: (1) EPA and federal procurement regulations which require adequate procurement planning; (2) the need and rationale for soliciting competition and using opportunities for fixed-price contracts wherever possible; (3) the inappropriateness of directing contractors to perform work outside of their contracts' scope of work; and (4) the need to immediately stop any further directed sole-source subcontracts. The Administrator, EPA, should, to improve controls over the agency's contract management, require the Procurement and Contract Management Division to carry out its contract management responsibilities by having the contract officers become more involved with monitoring work assignments, as required by EPA and federal regulations. The Administrator should require contract officers not to approve individual work assignments unless the assignments are accompanied by: (1) a detailed statement of work showing specifics to be included in the final work product; and (2) a detailed cost estimate. If necessary, a compliance program should be established to ensure that contract officers meet this requirement. If resources are not available to carry out these responsibilities, the Administrator should determine the additional staff needs and provide this information to the appropriate congressional committees for their consideration.

126199

Status of the Department of Energy's Implementation of the Nuclear Waste Policy Act of 1982 as of December 31, 1984. RCED-85-65; B-202377. January 31, 1985. 35 pp. plus 2 appendices (4 pp.). *Report* to Sen. James A. McClure, Chairman, Senate Committee on Energy and Natural Resources; Sen. J. Bennett Johnston, Ranking Minority Member, Senate Committee on Energy and Natural Resources; by Ralph V. Carlone, (for J. Dexter Peach, Director), Resources, Community, and Economic Development Division. Refer to Testimony, March 5, 1985, Accession Number 126343; Testimony, March 21, 1985, Accession Number 126494; Testimony, November 6, 1985, Accession Number 128370; RCED-86-42, October 31, 1985, Accession Number 128514; RCED-86-154FS, April 4, 1986, Accession Number 129833; RCED-87-48FS, November 5, 1986, Accession Number 131594; and RCED-86-86, January 31, 1986, Accession Number 129261.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).

Organization Concerned: Department of Energy.

Congressional Relevance: *Senate* Committee on Energy and Natural Resources; *Sen.* J. Bennett Johnston; *Sen.* James A. McClure.

Authority: Nuclear Waste Policy Act of 1982 (P.L. 97-425).

Abstract: In response to a congressional request, GAO reported on the Department of Energy's (DOE) implementation of the Nuclear Waste Policy Act for the quarter ending December 31, 1984. The report discussed DOE progress in meeting legislative deadlines, the status of the Nuclear Waste Fund, program management, information system development, and federal relations with the states and tribes.

Findings/Conclusions: GAO found that delays have occurred in meeting key requirements of the act. DOE issued its final guidelines for choosing disposal repository sites 17 months after the deadline. Furthermore, environmental assessments of the sites and the mission plan have yet to be completed. However, during the quarter, DOE reviewed a draft report of recommendations for alternative management approaches, reviewed comments on a report dealing with high-level defense wastes, issued a document on transportation options, received comments on a document for selecting a site for the second repository, and worked on a proposal for a monitored retrievable storage system. During the quarter: (1) four lawsuits

were filed questioning the site selection process; (2) DOE continued to improve its financial reporting system; (3) DOE made efforts to improve communication with affected states and Indian tribes; and (4) about $90.4 million was paid into the Nuclear Waste Fund from user fees, but no one-time user fees were paid. DOE spent $46.1 million for various program activities during the quarter. About 70 percent of these costs were for repository development activities, and most Nuclear Waste Fund obligations were made to contractors. As of December 31, 1984, DOE had unpaid obligations of about $213.4 million and a cash balance of about $242.8 million. In addition, it owed the Treasury about $258.4 million plus interest for the appropriations it received.

126211

Clearer EPA Superfund Program Policies Should Improve Cleanup Efforts. RCED-85-54; B-217374. February 6, 1985.

Released February 13, 1985. 17 pp. *Report* to Rep. James J. Florio, Chairman, House Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; by Charles A. Bowsher, Comptroller General. Refer to RCED-86-204, August 15, 1986, Accession Number 131178.

Issue Area: Environment: Assessing EPA's Initial Efforts To Address Problems Posed by Past Hazardous Waste Disposal Practices (6801).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *House* Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; *Senate* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *Senate* Committee on Environment and Public Works; *Rep.* James J. Florio.

Authority: Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Water Pollution Control Act. Executive Order 12316.

Abstract: In response to a congressional request, GAO examined the types of removal actions taken by the Environmental Protection Agency (EPA) at hazardous waste sites under its Superfund program and whether existing legislation allows for more comprehensive cleanup of contamination by the removal program.

Findings/Conclusions: GAO found that, from December 1980 to February 1984, EPA finished immediate removal actions at 165 hazardous waste sites, spending an average of about $302,000 per action. GAO found that the types and extent of immediate removal actions taken varied in terms of cost, the kind of response required, and the degree of contribution to long-term site cleanup. Actions ranged from complete removal of hazardous substances from sites not on the priority list to containing or stabilizing the hazards at priority sites for future remedial action. Generally, subsurface contamination problems are addressed under the remedial program because their solution requires extensive study; however, surface hazards are often amenable to complete cleanup. Current EPA policy on immediate removals at priority sites has often led to the containment or stabilization of surface waste problems, such as leaking containers. Since this is not a final solution, there are persistent threats to the public and the environment and increased overall cleanup costs. EPA has chosen to limit the scope of its removal actions in order to ensure that funds will be available for the most pressing hazardous waste problems posed at priority sites. However, recognizing the limits of this policy, EPA has proposed changes to provide more complete cleanup of hazardous wastes from priority sites.

Recommendation To Agencies: The Administrator, EPA, should include in the revisions to the national contingency plan a requirement that removal actions eliminate surface hazardous substances to the extent possible to reduce recurring threats, avoid repeated actions, minimize Superfund expenditures, and contribute to the permanent remedy of national priority list hazardous waste sites.

126226

Vehicle Emissions Inspection and Maintenance Program Is Behind Schedule. RCED-85-22; B-216009. January 16, 1985.

Released February 15, 1985. 43 pp. plus 4 appendices (11 pp.). *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by Charles A. Bowsher, Comptroller General. Refer to RCED-86-129BR, May 2, 1986, Accession Number 130424; and RCED-88-40, January 26, 1988, Accession Number 134947.

Issue Area: Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Rep.* John D. Dingell.

Authority: Clean Air Act. Clean Air Act Amendments of 1970 (P.L. 91-604; 84 Stat. 1676). Clean Air Act Amendments of 1977 (P.L. 95-95; 91 Stat. 685). H.R. 5252 (97th Cong.).

Abstract: Pursuant to a congressional request, GAO discussed the Environmental Protection Agency's (EPA) implementation of vehicle inspection and maintenance (I/M) programs to ensure attainment of the national ambient air quality standards by 1987.

Findings/Conclusions: GAO found that the implementation of I/M programs continues to run behind the EPA schedule largely because states have strongly opposed the programs and because EPA, desiring to work with the states, has given states more time to submit approvable programs. Further, many programs that have been implemented have experienced operational problems in the areas of quality control or enforcement. The scheduled program audits, if conducted, could help identify the overall operational problems and develop a strategy for dealing with them. However, EPA has not budgeted adequate resources to complete the scheduled audits of the remaining programs. GAO believes that these audits must be completed according to schedule to meet the 1987 deadline.

Recommendation To Agencies: The Administrator, EPA, should reassess the priority given to completing scheduled audits of state I/M programs. The audits should be completed by the close of fiscal year 1986 so that states can benefit from any EPA recommendations before the 1987 deadline. If EPA is unable to complete the audits on schedule, it should immediately inform Congress of the delay, the reasons, and suggested solutions.

126343

[Department of Energy Implementation of the Nuclear Waste Policy Act of 1982]. March 5, 1985. 11 pp. plus 1 attachment (1 p.). *Testimony* before the House Committee on Interior and Insular Affairs: Energy and the Environment Subcommittee; by F. Kevin Boland, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-85-27, January 10, 1985, Accession Number 125996; RCED-85-65, January 31, 1985, Accession Number 126199.

Contact: Resources, Community, and Economic Development Division.
Organization Concerned: Department of Energy; Department of Energy: Office of Civilian Radioactive Waste Management.
Congressional Relevance: *House* Committee on Interior and Insular Affairs: Energy and the Environment Subcommittee.
Authority: Nuclear Waste Policy Act of 1982.
Abstract: GAO discussed its recently issued reports on Department of Energy (DOE) efforts to implement the Nuclear Waste Policy Act. In those reports, GAO noted that DOE has made significant progress toward implementing major legislative requirements. However, although DOE is required to make a formal recommendation as to the proposed site for the first nuclear waste repository by January 1, 1985, it does not expect to do so until at least mid-1985. In addition, legal challenges could further affect progress in siting the first waste repository. GAO found that the contracts which DOE has entered into with nuclear utilities represent a major step toward placing the financial responsibility for the program on the generators or owners of radioactive materials and ensuring revenues for the program. However, GAO found that the ongoing fees will have to be increased and collection procedures should be evaluated. GAO believes that DOE should consider: (1) accelerating the payments of utilities generating nuclear electricity; (2) raising the interest rates charged commercial owners to commercial interest rates; (3) seeking appropriations for the defense high-level waste it owns; (4) and seeking accelerated payment of funds held by New York for the care of waste which it maintains. Further, GAO found that DOE has not established a headquarters office to direct the overall program, but managers control field staff who execute the program through contractors. GAO found that, under this decentralized approach, DOE will need to develop strong management controls over repository planning and execution.

126382

[Reports on Superfund Reauthorization Issues]. March 7, 1985. 7 pp. *Testimony* before the House Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; by Milton J. Socolar, Special Assistant to the Comptroller General, Office of the Comptroller General.

Contact: Office of the Comptroller General.
Organization Concerned: Environmental Protection Agency.
Congressional Relevance: *House* Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee. .
Authority: Resource Conservation and Recovery Act of 1976. Clean Air Act. Clean Water Act of 1977. Safe Drinking Water Act. Comprehensive Environmental Response, Compensation, and Liability Act of 1980.
Abstract: GAO discussed the Superfund program and the extent of the hazardous waste problem, the status of cleanup efforts, and the projected cost of cleaning up hazardous waste sites. The Environmental Protection Agency (EPA) estimated that the number of sites listed for priority cleanup would be about 1,500 to 2,500 over the next few years and that the estimated cost would range from $7.6 billion to $22.7 billion. Other cost estimates based on past levels of operations show the number of priority sites could grow to 4,170 with costs of $6.3 billion to $39.1 billion, and additional costs of $7.6 billion for states and $26.1 billion for responsible parties. The Resource Conservation and Recovery Act requires that each state compile an inventory of its hazardous waste sites and that EPA compile inventories for those states that do not; however, both efforts have been limited. EPA estimated that the Superfund cleanup program has only cleaned up 10 sites because the program activities have concentrated on the inspection, performance, and design of cleanup actions. EPA has recognized the program's inefficiencies and has made changes to clarify and streamline them. Superfund legislation provides funding and authority for site cleanup but does not provide standards for determining the degree of cleanup required, which has a direct bearing on cost and actions which protect public health and the environment. Superfund has set no national standards, and EPA has concentrated only on emergency cleanups, leaving most of the site responsibilities to the states. As a result, EPA does not monitor cleanup actions, and the public may not be receiving uniform protection from the dangers posed by the sites. Therefore, if there is to be proper management of hazardous waste sites on a national basis, uniform criteria should be established to govern cleanup decisions at both the federal and state levels.

126471

Taxing Hazardous Waste: Economics, Design, and Implementation. 1985. 4 pp. by Linda M. Fletcher, Evaluator, Resources, Community, and Economic Development Division. In The GAO Review, Vol. 20, Issue 1, Winter 1985, pp. 12-15.

Contact: Resources, Community, and Economic Development Division.
Organization Concerned: Environmental Protection Agency; Internal Revenue Service.
Authority: Comprehensive Environmental Response, Compensation, and Liability Act of 1980.
Abstract: This article describes the financial management of the Superfund program to clean up hazardous waste sites. The taxing authority of the fund will end on September 30, 1985, and Congress is considering reauthorization of the program and is discussing the implementation of a waste-end tax to create an economic incentive to reduce the amount of waste generated, encourage environmentally desirable disposal methods, and raise needed program revenue. However, if not carefully designed and implemented, such a program might provide an incentive for using undesirable waste management practices. In addition, implementing the tax will rely largely on the design of the rate structure and will be the responsibility of the Environmental Protection Agency and the Internal Revenue Service.

126489

School District Officials Face Problems in Dealing With Asbestos in Their Schools. RCED-85-91; B-206367. March 19, 1985. 64 pp. *Report* to Rep. Edward P. Boland, Chairman, House Committee on Appropriations: HUD-Independent Agencies Subcommittee; by J. Dexter Peach, Director, Resources,

Community, and Economic Development Division.

Issue Area: Environment: Other Issue Area Work (6891).
Contact: Resources, Community, and Economic Development Division.
Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).
Organization Concerned: Environmental Protection Agency.
Congressional Relevance: *House* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *Rep.* Edward P. Boland.
Authority: Toxic Substances Control Act. Clean Air Act. Asbestos School Hazard Abatement Act of 1984 (P.L. 98-377).
Abstract: Pursuant to a congressional request, GAO provided information on how public school districts are handling problems associated with asbestos in their school buildings, focusing on the Environmental Protection Agency's (EPA) and states' efforts to assist school districts in asbestos abatement. Findings/Conclusions: GAO found that: (1) EPA operates technical assistance programs that provide school districts with guidance, information, and training on asbestos problems; (2) efforts to abate asbestos exposure on the national level are hampered by widely varying state requirements and assistance programs; (3) generally, school districts are responsible for making and implementing asbestos-related decisions; and (4) most of the school districts it visited based abatement actions on the findings of consultants. In addition, GAO found that: (1) over 50 percent of the schools in school districts that it visited had asbestos present prior to abatement actions; (2) asbestos has been found in many different types of areas within school buildings, but is most commonly present in insulation; (3) removal is the most frequently chosen asbestos abatement action; and (4) most removal funds are spent for consultants and contractors. GAO stated that many state and local officials suggested: (1) more federal technical assistance; (2) stronger state requirements for asbestos abatement; (3) state contractor certification programs; (4) the establishment of a definitive exposure standard for asbestos; and (5) increased federal funding for asbestos removal.

126494

[Department of Energy Implementation of the Nuclear Waste Policy Act of 1982]. March 21, 1985. 11 pp. plus 1 attachment (1 p.). *Testimony* before the House Committee on Energy and Commerce: Energy Conservation and Power Subcommittee; by F. Kevin Boland, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-85-27, January 10, 1985, Accession Number 125996; RCED-85-42, October 19, 1984, Accession Number 125544; and RCED-85-65, January 31, 1985, Accession Number 126199.

Contact: Resources, Community, and Economic Development Division.
Organization Concerned: Department of Energy; Department of Energy: Office of Civilian Radioactive Waste Management.
Congressional Relevance: *House* Committee on Energy and Commerce: Energy Conservation and Power Subcommittee; *Senate* Committee on Energy and Natural Resources.
Authority: Nuclear Waste Policy Act of 1982.
Abstract: GAO discussed the Department of Energy's (DOE) efforts to implement the Nuclear Waste Policy Act of 1982. Overall, DOE has made significant progress toward implementing major legislative requirements. However, it faces a difficult challenge in meeting repository siting deadlines mandated by the act, ensuring adequate financing for the high cost of the program, and enhancing management controls over repository planning and execution. DOE has taken several important steps toward finding a suitable location for the nation's first high-level waste repository. Each of the nine candidate sites selected by DOE is undergoing public review and comment, and DOE expects to make a final recommendation to the President in summer 1985. Organizationally, DOE has put into place a headquarters office to direct the overall program; however, its managers do not have the authority to directly control the field staff who execute the program through multiple contractors. The field staff are overseen by DOE field offices, and the DOE Office of Civilian Radioactive Waste Management will need to pay particularly close attention to developing strong management controls over repository planning and execution. In the program financing area, DOE should fully evaluate ways to more promptly collect fees from all anticipated users of its repository services, and it should also evaluate ways to more promptly collect fees from all generators and owners of highly readioactive materials and establish fees for the disposal of high-level wastes.

126524

[GAO Superfund Work]. March 26, 1985. 8 pp. *Testimony* before the House Committee on Public Works and Transportation: Water Resources Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division.

Contact: Resources, Community, and Economic Development Division.
Organization Concerned: Environmental Protection Agency; Department of Health and Human Services.
Congressional Relevance: *House* Committee on Public Works and Transportation: Water Resources Subcommittee.
Authority: Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Resource Conservation and Recovery Act of 1976.
Abstract: GAO discussed its work in the area of hazardous waste disposal and issues to be considered during congressional debates on the reauthorization of the Superfund program. The testimony focused on the extent of the hazardous waste problem, the status of cleanup efforts, and the projected cost of cleaning up the nation's most hazardous waste sites. GAO found that the Environmental Protection Agency (EPA) has not yet identified all potential hazardous waste sites, and the Department of Health and Human Services (HHS) has not completed health risk evaluations. HHS has eight health studies and six laboratory projects underway and six other health studies are in the planning stages. EPA has cleaned up 10 of the worst sites and has conducted 430 removal actions, concentrating its cleanup efforts on the worst sites and leaving the cleanup of most sites to the states. While EPA estimates that cleaning up the anticipated priority sites will cost the federal government from $8 billion to $23 billion, GAO has estimated that the cleanup costs could range from $6 billion to $39 billion. Related state and responsible party cleanup and maintenance costs could amount to an additional $34 billion. Both EPA and state efforts have been limited in identifying new sites, relying primarily on local governments and the public to discover them. GAO has found an absence of legislative standards on the amount of cleanup required and a disagreement among experts as to how much site cleanup is appropriate. In considering reauthorization, Congress could make no change in the basic

structure of the legislation, or it could change the structure of the Superfund program to emphasize permanent, long-term remedies, and give EPA responsibility for setting national standards for dealing with hazardous waste sites.

126572

[GAO's Review of the Department of Transportation's Pipeline Safety Program]. March 28, 1985. 18 pp. plus 1 appendix (1 p.). *Testimony* before the Senate Committee on Commerce, Science and Transportation: Surface Transportation Subcommittee; by Ralph V. Carlone, (for J. Dexter Peach, Director), Resources, Community, and Economic Development Division. Refer to RCED-84-102, July 10, 1984, Accession Number 124689.

Contact: Resources, Community, and Economic Development Division.
Organization Concerned: Department of Transportation: Research and Special Programs Administration: Materials Transportation Bureau.
Congressional Relevance: *Senate* Committee on Commerce, Science and Transportation: Surface Transportation Subcommittee.
Authority: Natural Gas Pipeline Safety Act of 1968. Hazardous Liquid Pipeline Safety Act of 1979. 10 C.F.R. 170. 18 C.F.R. 36. OMB Circular A-50. Mississippi Power and Light Co. v. Nuclear Regulatory Commission, 444 U.S. 1102 (1980). 31 U.S.C. 9701.
Abstract: GA discussed its report on the federal role in regulating and enforcing pipeline safety. In addition, GAO provided its views on the feasibility of the Department of Transportation's (DOT) implementation of user fees for inspecting interstate pipeline companies. GAO found that DOT has not provided adequate inspection coverage of the interstate and intrastate pipeline operators for which it has responsibility, and its inspection coverage may be reduced further. Some states have been acting as agents of the federal government on a voluntary basis and have indicated that they do not plan to assume responsibility for the intrastate gas pipelines for which DOT is now responsible or the intrastate hazardous liquids pipelines in their states when federal safety standards are amended to cover these pipelines. Some states also indicated that they are thinking of discontinuing all or a portion of their existing inspection activities. DOT is responsible for ensuring that participating state agencies are adequately enforcing federal safety standards. However, since state participation is voluntary, DOT does not have effective means for requiring states to correct program deficiencies or assume responsibility for additional intrastate pipeline systems. GAO recommended that DOT propose alternatives for meeting federal program responsibilities with inspection resources and improve its inspection activities and its evaluations of the states' pipeline safety programs. DOT is taking action on these recommendations. GAO also analyzed the feasibility of establishing user fees for interstate pipeline companies to finance the interstate pipeline safety inspection program. On the basis of its analysis, GAO believes that the imposition of user fees would be legal and feasible. In addition, financing inspection costs through fees to pipeline companies and their customers would be more equitable than financing such costs with taxes on the general public. Finally, economic analysis showed that the impact of user fees on pipeline operators and their customers would be extremely small.

126612

Cleaning Up Hazardous Wastes: An Overview of Superfund Reauthorization Issues. RCED-85-69; B-215824. March 29, 1985. 55 pp. plus 4 appendices (23 pp.). *Report* to Congress; by Charles A. Bowsher, Comptroller General. Refer to RCED-86-123, May 6, 1986, Accession Number 130081; RCED-88-2, October 16, 1987, Accession Number 134208; RCED-87-128, July 17, 1987, Accession Number 133701; and RCED-88-48, December 9, 1987, Accession Number 134827.

Issue Area: Environment: Assessing EPA's Initial Efforts To Address Problems Posed by Past Hazardous Waste Disposal Practices (6801).
Contact: Resources, Community, and Economic Development Division.
Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).
Organization Concerned: Environmental Protection Agency.
Congressional Relevance: *House* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *House* Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Senate* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *Senate* Committee on Environment and Public Works; Congress.
Authority: Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Water Pollution Control Act. Resource Conservation and Recovery Act of 1976. Clean Air Act. Clean Water Act of 1977. Safe Drinking Water Act.
Abstract: GAO reported on Superfund issues, including the Comprehensive Environmental Response, Compensation, and Liability Act.
Findings/Conclusions: GAO found that the cost and scope of the hazardous waste problem, the degree of health risks involved, and the cost of correcting these problems are unknown. Under the act, the Environmental Protection Agency (EPA) has no mandate to set nationwide cleanup standards or oversee state-conducted cleanups. The absence of standards complicates an already lengthy, complex process for cleaning up hazardous waste sites. EPA estimated that federal cleanup costs for priority sites, in 1983 dollars, could range from $7.6 billion to $22.7 billion and that cleanups could take until fiscal year 1999. As a result of the lack of national standards and compliance enforcement, EPA expects to clean up relatively few of the nation's uncontrolled hazardous waste sites. Further, although individual states are assisting in cleanup efforts, the situation is not resulting in uniform protection from the dangers posed by hazardous waste sites. GAO concluded that the resolution of this issue may require Congress to weigh competing priorities and determine the extent to which it believes an expanded federal role at non-National Priorities List (NPL) sites is necessary.
Recommendation To Congress: Congress should consider the merits of changing the act's structure. This change would emphasize permanent, long-term remedies and entail: (1) assigning EPA a role in ensuring that a minimum level of protection from all sites is provided, including setting national standards as discussed in this report; and (2) allowing possible delegation of some authority to the states under EPA oversight. Congress should also require EPA to monitor state cleanup performance and report on the extent and adequacy of state actions. This would provide a data base on which to evaluate the need for a greater federal role at non-NPL sites.

126618

Illegal Disposal of Hazardous Waste: Difficult To Detect or Deter.

RCED-85-2; B-217451. February 22, 1985.

Released April 5, 1985. 54 pp. plus 4 appendices (11 pp.). *Report* to Rep. James L. Oberstar, Chairman, House Committee on Public Works and Transportation: Investigations and Oversight Subcommittee; by Charles A. Bowsher, Comptroller General. Refer to RCED-86-63, February 10, 1986, Accession Number 129286.

Issue Area: Environment: Assessing EPA's Efforts To Protect Public Health and the Environment by Controlling Hazardous Waste From Generation To Disposal (6802).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency; Department of Transportation; California; Illinois; Massachusetts; New Jersey; Federal Highway Administration: Bureau of Motor Carrier Safety.

Congressional Relevance: *House* Committee on Public Works and Transportation: Investigations and Oversight Subcommittee; *Rep.* James L. Oberstar.

Authority: Resource Conservation and Recovery Act of 1976 (42 U.S.C. 6901). Solid and Hazardous Waste Amendments of 1984. Hazardous Materials Transportation Act. Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601). H.R. 5002 (98th Cong.). S. 2741 (98th Cong.).

Abstract: Pursuant to a congressional request, GAO studied issues related to illegal hazardous waste disposal to determine whether: (1) information regarding illegal disposal is available; (2) the Environmental Protection Agency (EPA) and states can identify hazardous waste generators and the types and quantities of waste that they produce; (3) the hazardous waste transportation manifest system effectively detects illegal waste disposal; (4) inspections of waste generators and transporters effectively detect illegal disposal; (5) enforcement actions are taken against hazardous waste disposal violators; and (6) other methods not covered in federal regulations could detect illegal disposals. Findings/Conclusions: GAO found that EPA and state officials agree that illegal hazardous waste disposals are a problem, but do not know the extent or cost of such disposals. EPA and the states cannot ensure compliance with federal and state waste disposal regulations because they do not have complete data on the identities of waste generators and the types and quantities of waste produced. While EPA and the states believe that they have identified most large generators of hazardous waste, they are concerned about the identification of the larger number of generators of small quantities of waste, which EPA will be required to regulate by March 1986. GAO also found that the manifest system, which requires waste generators and transporters to document each shipment of hazardous waste from origin to disposal, may deter illegal disposals, but does not detect such disposals and cannot detect instances where forgery has occurred. Routine federal and state inspections of waste generators and transporters have not detected illegal disposals because they are primarily intended to ensure compliance with procedural requirements and are not primarily targeted at illegal waste disposers. In addition, GAO found that, in the 28 illegal disposal cases prosecuted in the states studied, convicted violators received fines ranging from $250 to $100,000 and prison sentences ranging from 20 days to 7 years. GAO also identified several alternative methods of detecting illegal disposals, but could not determine whether the alternatives would be cost-effective because the extent of illegal disposal is unknown.

126764

Efforts To Clean Up DOD-Owned Inactive Hazardous Waste Disposal Sites. NSIAD-85-41; B-215366. April 12, 1985.

Released April 23, 1985. 27 pp. plus 9 appendices (21 pp.). *Report* to Rep. James J. Florio, Chairman, House Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; Rep. Vic Fazio, Chairman, House Committee on Appropriations: Appropriations Subcommittee; by Charles A. Bowsher, Comptroller General. Refer to RCED-87-153, July 27, 1987, Accession Number 133794; and NSIAD-86-28BR, December 17, 1985, Accession Number 128931.

Issue Area: Environment (6800); Air Force (5400).

Contact: National Security and International Affairs Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0); National Defense: Department of Defense - Military (Except Procurement and Contracting) (051.0).

Organization Concerned: Department of Defense; Department of the Air Force; Department of the Navy; Department of the Army; Environmental Protection Agency.

Congressional Relevance: *House* Committee on Appropriations: Defense Subcommittee; *House* Committee on Armed Services; *House* Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; *House* Committee on Appropriations; *Senate* Committee on Appropriations: Defense Subcommittee; *Senate* Committee on Armed Services; *Rep.* James J. Florio; *Rep.* Vic Fazio.

Authority: Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et seq.).

Abstract: In response to a congressional request, GAO evaluated the status of the Department of Defense's (DOD) Installation Restoration Program (IRP), which is a program to comply with the Comprehensive Environmental Response, Compensation, and Liability Act's requirements for cleanup of DOD hazardous waste sites.

Findings/Conclusions: DOD has identified 473 military bases that require assessments to identify potentially hazardous waste sites, 204 bases where confirmation is needed that contaminants are affecting the environment; and 72 bases where corrective action is needed. Through fiscal year 1983, IRP expenditures were about $202 million. DOD has estimated that total program costs will be between $5 and $10 billion. However, the estimate is tentative because the number of sites and scope of the required cleanup effort is not yet known. Many states have begun to set informal, nonregulatory standards for hazardous pollutants in ground water and, while DOD guidance does not address the extent to which bases are required to meet the states' informal regulatory standards, DOD bases are attempting to comply with these informal standards. The lack of formal federal and state groundwater standards for allowable contaminants and the variance of the currently used informal standards from state to state has increased the need for close coordination of IRP activities with regulatory agencies; however, the level of coordination prescribed is not sufficient to prevent coordination problems or to facilitate efficient implementation of IRP. GAO found that: (1) six bases could have minimized problems with earlier regulatory agency involvement; and (2) three bases had been helped by regulatory involvement to develop IRP plans. The services have used contracts to accomplish IRP

studies, and GAO found that the Air Force has encountered problems with contract administration and monitoring.

Recommendation To Agencies: The Secretary of Defense should revise the IRP policy on coordination with regulatory agencies. The revised policy should provide for increased and earlier involvement of EPA and state regulatory agencies in all IRP phases and should be uniform for all services.

126813

[EPA's Disposal of Superfund Wastes]. April 29, 1985. 8 pp. *Testimony* before the House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division.

Contact: Resources, Community, and Economic Development Division.

Organization Concerned: Environmental Protection Agency; Chemical Waste Management, Inc.; Greenstreet Farms, Inc.

Congressional Relevance: *House* Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee.

Authority: Resource Conservation and Recovery Act of 1976. Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

Abstract: In response to a congressional request, GAO discussed on the extent to which: (1) hazardous wastes removed from Superfund sites are being sent to commercial hazardous waste landfills which are not in compliance with applicable regulations; and (2) Environmental Protection Agency (EPA) policies and other guidance prohibit sending Superfund wastes to landfills that do not comply with applicable requirements. GAO found that over half of the 28 commercial hazardous waste landfills operating as of November 1984 and receiving Superfund wastes had significant violations of EPA regulations. Five landfills were leaking contaminants into the ground water. In addition, GAO found that EPA staff did not determine the compliance status of two landfills which had significant violations. This was contrary to EPA policy; however, current EPA policy provides only general direction and leaves implementation decisions to regional offices. In 1984, Congress enacted legislation which requires that: (1) landfill owners or operators certify compliance with ground water and financial requirements; and (2) landfills not certified as in compliance by November 1985 are to be closed. EPA has proposed new policy concerning the disposal of Superfund wastes to ensure that the program meets these legislative requirements.

126837

EPA's Inventory of Potential Hazardous Waste Sites Is Incomplete. RCED-85-75; B-216455. March 26, 1985.

Released May 3, 1985. 32 pp. *Report* to Rep. James J. Florio, Chairman, House Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; by Charles A. Bowsher, Comptroller General. Refer to RCED-86-63, February 10, 1986, Accession Number 129286; RCED-86-123, May 6, 1986, Accession Number 130081; and RCED-88-44, December 17, 1987, Accession Number 134840.

Issue Area: Environment: Assessing EPA's Initial Efforts To Address Problems Posed by Past Hazardous Waste Disposal Practices (6801).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency; California; Connecticut; Florida; Louisiana; Maryland; New York; Texas.

Congressional Relevance: *House* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *House* Committee on Energy and Commerce; *Senate* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *Senate* Committee on Environment and Public Works; *Rep.* James J. Florio.

Authority: Resource Conservation and Recovery Act of 1976. Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Department of Housing and Urban Development--Independent Agencies Appropriation Act, 1983 (P.L. 97-272). Water Pollution Control Act. Water Pollution Control Act Amendments of 1972 (Federal) (P.L. 92-500). P.L. 98-616. H. Rept. 97-891. H. Rept. 98-198.

Abstract: Pursuant to a congressional request, GAO evaluated the effectiveness of Environmental Protection Agency (EPA) and state programs in determining the extent of hazardous waste cleanup problems. EPA and the states are required by the Comprehensive Environmental Response, Compensation, and Liability Act and the Resource Conservation and Recovery Act to complete a nationwide inventory of hazardous disposal sites. In addition, EPA is authorized to evaluate and clean up such sites. GAO focused on: (1) site discovery activities carried out by EPA and the states; (2) whether states are informing EPA of sites they discover; and (3) how federal and state site evaluation and cleanup roles are defined.

Findings/Conclusions: The nationwide EPA inventory is used as a basis for identifying National Priorities List sites, for which EPA intends to fund or enforce cleanup actions on a priority basis. GAO found that: (1) a complete inventory of hazardous sites does not exist; (2) EPA believes that aggressive state and federal discovery programs could result in the production of a complete inventory; (3) EPA has concentrated its resources on evaluating and cleaning up known hazardous sites instead of searching for new sites; (4) while EPA has broad authority to clean up hazardous sites, resource constraints have forced it to limit action to those sites included on the list; (5) while EPA believes that many more potentially hazardous sites remain to be discovered, it will require targeted and systematic programs to identify them; (6) the character and focus of the EPA program are expanding to include types of sites that were not targeted under previous discovery programs; and (7) some states have not conducted systematic site discovery programs, but most have discovered sites through citizen complaints or through inspections of active hazardous waste handlers. In addition, GAO also found that, while states are required by law to inform EPA of sites they discover, some states are not reporting sites because: (1) they believe that the EPA cleanup process is too slow; (2) they can force responsible parties to clean up sites; or (3) the threat of reporting sites to EPA can be used as a bargaining tool with responsible parties.

Recommendation To Agencies: The Administrator, EPA, should develop a plan laying out: (1) what specific steps EPA intends to take to complete a comprehensive hazardous waste site inventory envisioned by section 3012 of the Resource Conservation and Recovery Act; (2) what priorities and resources EPA plans to devote to this effort; (3) what the states' role should be; and (4) how long it will take to accomplish. The Administrator, EPA, should encourage the states to report the existence of hazardous sites by stressing the

importance and need for EPA evaluation of the sites and EPA emergency or other response where necessary. The Administrator, EPA, should emphasize to the EPA regions the need to incorporate into the EPA inventory sites that are reported by the states.

126861

EPA's Delegation of Responsibilities To Prevent Significant Deterioration of Air Quality: How Is It Working? RCED-85-73; B-217786. April 4, 1985.

Released May 7, 1985. 35 pp. plus 1 appendix (2 pp.). *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by Charles A. Bowsher, Comptroller General.

Issue Area: Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *House* Committee on Energy and Commerce; *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Senate* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *Senate* Committee on Environment and Public Works; *Rep.* John D. Dingell.

Authority: Clean Air Act. Clean Air Act Amendments of 1977. 40 C.F.R. 51. 40 C.F.R. 52. Uniform Procedures Act (New York).

Abstract: In response to a congressional request, GAO described Environmental Protection Agency (EPA) efforts in six states to delegate the operational responsibilities of the Prevention of Significant Deterioration Program (PSD) established by the Clean Air Act to state agencies.

Findings/Conclusions: GAO found that the EPA review process before delegation provided EPA adequate information to make its delegation decisions. Further, GAO found no significant differences in levels of effort between EPA and the states in carrying out their PSD activities. GAO found that state agencies had placed about the same or more emphasis on preconstruction review processing steps than had the EPA regions. In addition, two states took significantly less time than EPA to complete their preconstruction reviews and issue their PSD permits. GAO found that the state agencies' efforts to maintain emissions inventories varied by state, from no formalized inventory in two states to detailed computerized inventories of major and minor pollution sources in three states. In addition, GAO found that the frequency of state inspections varied considerably from the EPA annual inspection criterion. EPA performs two types of annual audits that encompass all aspects of delegated air pollution control programs, including PSD. Further, EPA periodically reviews a sample of the states' PSD application and permit files and inspects some of the operating PSD sources to measure each state agency's performance. GAO found that those mechanisms afford EPA ample opportunity to monitor the state agencies after PSD delegation. However, two of the three EPA regions GAO reviewed had not updated their Compliance Data System, which was designed to assist them in their oversight activities. As a result, the status of air pollution control activities in those regions was not current.

Recommendation To Agencies: Because of the differences in priority given the Compliance Data System by EPA Regions II, IV, and VIII, the Administrator of EPA should reevaluate the importance of the system as an oversight tool for all air pollution control programs and, if warranted, give the Compliance Data System the priority needed to keep the information current and uniform in all EPA regions.

126896

Federal and State Methanol Fuel Projects, Coordination, and State Tax Incentives. RCED-85-97; B-217943. May 3, 1985.

Released May 10, 1985. 4 pp. plus 6 appendices (90 pp.). *Report* to Rep. Philip R. Sharp, Chairman, House Committee on Energy and Commerce: Fossil and Synthetic Fuels Subcommittee; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to RCED-86-136FS, April 4, 1986, Accession Number 129616; and RCED-87-10BR, October 17, 1986, Accession Number 131615.

Issue Area: Energy: Assessing Whether the DOE R&D Program Will Result in Developing Needed Alternative Energy Technologies To Meet Future Energy Demand (6410).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Supply (271.0).

Organization Concerned: Department of Energy; Environmental Protection Agency; Department of Transportation.

Congressional Relevance: *House* Committee on Energy and Commerce: Fossil and Synthetic Fuels Subcommittee; *Rep.* Philip R. Sharp.

Abstract: Pursuant to a congressional request, GAO examined the potential use of methanol as an alternative fuel for motor vehicles.

Findings/Conclusions: GAO found that methanol has attracted interest as an alternative fuel because it is a relatively clean-burning, high-octane fossil fuel. Research is now underway in several areas, including more efficient production from new and existing sources, and necessary vehicle modifications to produce acceptable and economic performance. GAO identified 10 federal agencies and 7 states that have projects for methanol research, development, or regulation. Four states currently offer tax incentives from state fuel excise taxes to encourage the use of methanol fuel. GAO also identified coordination methods used among the federal agencies, states, and government contractors involved in methanol fuel development and provided examples of the type and extent of research activities.

126921

Status of the Department of Energy's Implementation of the Nuclear Waste Policy Act of 1982 as of March 31, 1985. RCED-85-116; B-202377. April 30, 1985. 31 pp. *Report* to Sen. James A. McClure, Chairman, Senate Committee on Energy and Natural Resources; Sen. J. Bennett Johnston, Ranking Minority Member, Senate Committee on Energy and Natural Resources; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to Testimony, November 6, 1985, Accession Number 128370; RCED-86-42, October 31, 1985, Accession Number 128514; RCED-86-154FS, April 30, 1986, Accession Number 129833; RCED-87-48FS, November 5, 1986, Accession Number 131594; and RCED-86-86, January 31, 1986, Accession Number 129261.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).

Organization Concerned: Department of Energy: Office of Civilian Radioactive Waste Management.

Congressional Relevance: *Senate* Committee on Energy and Natural Resources; *Sen.* J. Bennett Johnston; *Sen.* James A. McClure.

Authority: Nuclear Waste Policy Act of 1982 (P.L. 97-425). Price-Anderson Act (Atomic Energy Damages).

Abstract: Pursuant to a congressional request, GAO issued its quarterly report on the status of the Nuclear Waste Fund and the Department of Energy's (DOE) implementation of the Nuclear Waste Policy Act of 1982. The act required DOE to develop and construct permanent repositories to dispose of nuclear waste and established the Office of Civilian Radioactive Waste Management (OCRWM) within DOE to administer the waste disposal program. Findings/Conclusions: GAO found that: (1) DOE has not completed a mission plan for the waste disposal program, as required by the act; (2) while DOE has issued siting guidelines for the repositories, it has not completed required environmental assessments of the proposed sites; (3) DOE issued draft environmental assessments for proposed sites in Nevada, Texas, and Washington; and (4) as of March 1985, four lawsuits were pending in connection with OCRWM repository siting activities, but two cases may be consolidated and another may be dismissed. GAO also found that OCRWM made little progress during the quarter on: (1) an accountant's review of OCRWM financial statements; (2) a new program management system manual; or (3) the implementation of a new automated information system. In addition, GAO found that: (1) about $85 million was paid into the Fund during the quarter; (2) OCRWM expects that between $770 million and $1.3 billion in one-time fees will be paid into the Fund by the end of June 1985; (3) DOE began to invest excess nuclear waste funds during the quarter and earned about $145,000 in investment income; (4) OCRWM incurred about $74 million in program costs during the quarter, mostly for repository development activities; (5) as of the end of March 1985, OCRWM had unpaid obligations totalling about $204 million and a cash balance of about $260 million; and (6) OCRWM will repay the Treasury $258.4 million plus interest for appropriations it received when the act became law.

126922

Status of EPA's Remedial Cleanup Efforts RCED-85-86; B-216455. March 20, 1985.

Released April 29, 1985. 10 pp. plus 1 enclosure (2 pp.). *Report* to Rep. James J. Florio, Chairman, House Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; by Ralph V. Carlone, (for J. Dexter Peach, Director), Resources, Community, and Economic Development Division.

Issue Area: Environment: Assessing EPA's Initial Efforts To Address Problems Posed by Past Hazardous Waste Disposal Practices (6801).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; *Rep.* James J. Florio.

Authority: Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Clean Water Act of 1977.

Abstract: In response to a congressional request, GAO reported on the Environmental Protection Agency's (EPA) progress in cleaning up the nation's worst hazardous waste sites during the first 4 years of the Superfund Program. The report focused on: (1) the extent to which EPA believes that the worst sites have been cleaned up under its remedial program; and (2) the status and funding of ongoing remedial actions. Findings/Conclusions: GAO found that, as of December 31, 1984, EPA considered cleanup actions completed at 10 priority sites. These actions ranged from removing some or all of the wastes to containing wastes on-site. Of the 10 sites, 2 were cleaned up under the remedial program, 5 were cleaned up by the removal program, 2 were cleaned up by private parties, and 1 was cleaned up using Clean Water Act funds prior to the passage of the Comprehensive Environmental Response, Compensation, and Liability Act. GAO found that: 38 percent of the priority sites had no cleanup action underway or planned; 44 percent of the sites were in the investigation or study phase; and 19 percent had cleanup action approved or underway. EPA considered cleanup action complete at the remaining four priority sites. In a detailed review of 58 sites approved for cleanup, GAO found that most of the sites involved planned actions which would only partially or temporarily resolve the problems. Additional cleanup activity was anticipated at these sites primarily because of the difficulties of decontaminating groundwater. EPA reported that Superfund obligations totalled about $353 million for remedial activities for the priority sites through December 31, 1984, and expenditures were about $106 million. The money for remedial action is fully obligated at the beginning of each project and is expended in increments as each step is completed.

126948

Relocation of the EPA Regional Office From Kansas City, Missouri, to Kansas City, Kansas. GGD-85-56; B-218635.2. May 16, 1985. 9 pp. plus 3 appendices (25 pp.). *Report* to Sen. Robert J. Dole; Sen. Nancy L. Kassebaum; by William J. Anderson, Director, General Government Division.

Issue Area: Civil Procurement and Property Management: Changes Needed To Improve the Operation and Maintenance of GSA-Controlled Office Space (4901).

Contact: General Government Division.

Budget Function: General Government: Other General Government (806.0).

Organization Concerned: General Services Administration; Environmental Protection Agency.

Congressional Relevance: *Rep.* Alan Wheat; *Rep.* Larry Winn, Jr.; *Sen.* John C. Danforth; *Sen.* Thomas F. Eagleton; *Sen.* Nancy L. Kassebaum; *Sen.* Robert J. Dole.

Abstract: Pursuant to a congressional request, GAO reviewed the General Services Administration's (GSA) relocation of the Environmental Protection Agency (EPA) Regional Office from leased space in Kansas City, Missouri to leased space in Kansas City, Kansas, and the fire safety and lease status of the Eleven Oak building that EPA occupied in Missouri. Findings/Conclusions: GAO found that the original lease covering EPA occupancy in the Eleven Oak building did not require an automatic sprinkler system. Subsequent to reinstatement of its fire safety standards, GSA renewed the lease with a 1-year deferment of sprinkler installation requirement and a 5-year renewal option. However, EPA indicated that renewal was undesirable for security, safety, and administrative reasons, and it requested relocation. GAO found that GSA acted reasonably and properly in selecting the lowest offer

which was less costly than remaining at the Missouri location and installing an automatic sprinkler system in that building at government expense. However, GAO believes that EPA did not follow regulations for making its total space needs known prior to the lease award because GSA would have restarted the acquisition process.

126984

Relocation of the EPA Regional Office From Kansas City, Missouri, to Kansas City, Kansas. GGD-85-55; B-218635. May 16, 1985. 9 pp. plus 3 appendices (25 pp.). *Report* to Sen. Thomas F. Eagleton; Sen. John C. Danforth; Rep. Alan Wheat; by William J. Anderson, Director, General Government Division.

Issue Area: Civil Procurement and Property Management: Changes Needed To Improve the Operation and Maintenance of GSA-Controlled Office Space (4901).

Contact: General Government Division.

Budget Function: General Government: Other General Government (806.0).

Organization Concerned: Environmental Protection Agency; General Services Administration.

Congressional Relevance: *Rep.* Alan Wheat; *Sen.* John C. Danforth; *Sen.* Thomas F. Eagleton.

Abstract: Pursuant to a congressional request, GAO reviewed the General Services Administration's (GSA) relocation of the Environmental Protection Agency (EPA) Regional Office from leased space in Kansas City, Missouri, to leased spaces in Kansas City, Kansas, and the influence that fire safety requirements had on the decision to relocate.

Findings/Conclusions: Although the Eleven Oak building lease included a 5-year renewal option at a low rate, EPA indicated renewal was undesirable for security, safety, and administrative reasons. An economic analysis indicated that relocating the EPA office would increase the government's space costs but failed to take into account the cost of a sprinkler system that would be needed to comply with fire safety requirements if the lease for existing space in the Eleven Oak Building were renewed. GAO noted that: (1) the Regional Administrator knew approximately 1 month before the lease award that the amount of space would be inadequate but did not inform GSA that additional space was needed until after the lease award; and (2) GSA renewed the lease and initiated a 1-year deferment of the requirement for sprinklers to allow itself time to obtain suitable space to relocate the agencies involved. GAO found that: (1) GSA acted reasonably and properly in selecting the lowest offer; (2) EPA did not properly follow established regulations when it withheld the regional office's need for more space; and (3) not providing the additional space requirements restricted GSA ability to obtain competition for the additional space.

127238

Probabilistic Risk Assessment: An Emerging Aid to Nuclear Power Plant Safety Regulation. RCED-85-11; B-211642. June 19, 1985. 79 pp. plus 4 appendices (12 pp.). *Report* to Rep. Edward J. Markey, Chairman, House Committee on Energy and Commerce: Energy Conservation and Power Subcommittee; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to RCED-83-158, May 24, 1983, Accession Number 121471; RCED-86-193BR, July 16, 1986, Accession Number 130447; and RCED-87-124, June 2, 1987, Accession Number 133093.

Issue Area: Energy: Extent to Which Federal Regulatory Processes Improved To Ensure Public Health and Safety Since the Three Mile Island Accident (6401).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Supply (271.0).

Organization Concerned: Nuclear Regulatory Commission.

Congressional Relevance: *House* Committee on Energy and Commerce: Energy Conservation and Power Subcommittee; *Rep.* Richard L. Ottinger; *Rep.* Edward J. Markey.

Authority: Environmental Policy Act of 1969 (National).

Abstract: In response to a congressional request, GAO reported on: (1) the state of the art of the Nuclear Regulatory Commission's (NRC) probabilistic risk assessment (PRA); (2) whether the NRC use of PRA appears reasonable considering its staff's experience and training; and (3) whether PRA adequately considers the potential problems and disadvantages of the analysis method.

Findings/Conclusions: GAO has found that many improvements have been made in PRA methodology since it was first used in 1975; however, uncertainties remain because PRA identifies and assigns probabilities to nuclear accident events that rarely occur. The uncertainties also reflect the incomplete knowledge about plant systems, human behavior, accident processes, the off-site consequences of accidents, and how external events can cause accidents. Therefore, due to insufficient and unreliable data, analysts may make poor assumptions, and computer models may not be realistic. In 1983, NRC began a 3-year research program to reduce some of these uncertainties and to develop a computer model, collect experimental and actuarial data, improve its models, improve its understanding of accident processes, and develop models and data on external events. NRC uses PRA to analyze: (1) nuclear power plants and plant systems; (2) related regulations and safety issues; and (3) the estimated costs and benefits of alternative regulatory actions. Although the use of PRA is costly and time-consuming, increased staff and contractor training and experience have made its use timely and reasonable. However, NRC should not use the numerical risk estimates as the sole or primary basis for regulatory decisions and should use PRA to supplement its more traditional analytical and engineering methods.

127314

Land Use Bibliography. RCED-85-119. May 1985. 105 pp. *Report* by Charles A. Bowsher, Comptroller General.

Issue Area: Natural Resources Management (6900); Environment (6800); Energy (6400); Food and Agriculture (6500).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment (300.0); Energy (270.0); Agriculture (350.0).

Organization Concerned: Department of the Interior.

Abstract: This bibliography includes information on GAO documents directly related to land use planning, management, and control released between January and December 1984.

127409

Greater Use of Value Engineering Has the Potential To Save Millions on Wastewater Treatment Projects. RCED-85-85; B-218936. July 16, 1985. 35 pp. plus 4 appendices (22 pp.). *Report* to Congress; by Charles A. Bowsher, Comptroller General.

Issue Area: Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Budget; . *House* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *House* Committee on Public Works and Transportation; *Senate* Committee on Budget; *Senate* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *Senate* Committee on Environment and Public Works; Congress.

Authority: Water Pollution Control Act (33 U.S.C. 1251 et seq.). Water Pollution Control Act Amendments of 1956 (P.L. 84-660). Water Pollution Control Act Amendments of 1972 (Federal). Municipal Wastewater Treatment Construction Grant Amendments of 1981. Clean Water Act of 1977.

Abstract: GAO reported on whether value engineering (VE) could be used to achieve cost reductions for wastewater treatment plants funded by the Environmental Protection Agency (EPA) by extending VE to: (1) design plans of projects costing from $1 million to $10 million; and (2) construction through the use of construction incentive clauses. VE is a method of analyzing a product or service so that its function can be performed at the lowest possible cost without sacrificing overall quality.

Findings/Conclusions: GAO found that: (1) EPA requires VE design reviews only for projects costing more than $10 million and does not require VE during project construction; (2) increased use of VE on wastewater projects could save EPA from $25 million to $57 million annually; (3) EPA and other agencies have achieved cost savings by using VE on smaller projects, including wastewater projects, during both design and construction; and (4) an EPA staff study recommended VE design reviews for all projects costing more than $1 million. GAO also found that: (1) out of 2,750 EPA-funded projects costing less than $10 million under construction during 1983, state officials reported that only 7 had been value engineered; (2) few grantees are likely to use VE voluntarily because project cost savings are passed back to the states and project study costs are paid by grantees; and (3) many state officials are opposed to the use of construction incentive clauses because of concern that such clauses might increase administrative work, reduce project reliability, and fail to generate enough savings to justify the effort.

Recommendation To Congress: Congress should revise the Federal Water Pollution Control Act to require VE review on designs of wastewater treatment projects costing more than $1 million.

Recommendation To Agencies: The Administrator, EPA, should revise regulations to require VE review on designs of construction grant projects costing more than $1 million. The Administrator, EPA, should revise regulations to make VE design study costs for projects costing from $1 million to $10 million eligible expenses of the construction grant. The Administrator, EPA, should test the value of using construction incentive clauses by: (1) requiring their use for a period of time in EPA-funded wastewater treatment construction project contracts; (2) evaluating the results achieved; and (3) assessing whether such a technique is effective on a permanent basis in controlling costs. The Administrator, EPA, should promote the benefits of identifying cost-saving measures through the use of construction incentive clauses among applicable EPA, state, and grantee staff and contractors during the test period. If the results are positive, the Administrator, EPA, should require construction incentive clauses on a permanent basis.

127420

The Nuclear Regulatory Commission Should Report on Progress in Implementing Lessons Learned From the Three Mile Island Accident . RCED-85-72; B-213365. July 19, 1985. 36 pp. plus 9 appendices (56 pp.). *Report* to Congress; by Charles A. Bowsher, Comptroller General. Refer to EMD-80-76, May 27, 1980, Accession Number 112919; RCED-84-149, September 19, 1984, Accession Number 125195; EMD-80-118, September 11, 1980, Accession Number 113307; EMD-81-76, June 24, 1981, Accession Number 115873; and EMD-80-109, September 9, 1980, Accession Number 113337.

Issue Area: Energy: Extent to Which Federal Regulatory Processes Improved To Ensure Public Health and Safety Since the Three Mile Island Accident (6401).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Supply (271.0).

Organization Concerned: Nuclear Regulatory Commission.

Congressional Relevance: *House* Committee on Appropriations: Energy and Water Development Subcommittee; *House* Committee on Energy and Commerce: Energy Conservation and Power Subcommittee; *House* Committee on Interior and Insular Affairs: Energy and the Environment Subcommittee; *Senate* Committee on Appropriations: Energy and Water Development Subcommittee; *Senate* Committee on Environment and Public Works: Nuclear Regulation Subcommittee; Congress.

Authority: Environmental Policy Act of 1969 (National). Department of Energy, National Security, and Military Applications of Nuclear Energy Authorization Act, 1984. Price-Anderson Act (Atomic Energy Damages). Legislative Reorganization Act of 1970. P.L. 97-415. Reorg. Plan No. 1 of 1980. H. Rept. 96-1093.

Abstract: GAO reviewed the Nuclear Regulatory Commission's (NRC) implementation of the Three Mile Island Action Plan to improve the operation and regulation of commercial nuclear facilities and the progress made by utility companies that operate nuclear power plants.

Findings/Conclusions: GAO found that: (1) most of the work on the Action Plan has been completed; (2) NRC assigned a higher priority to items considered to have the greatest potential for improving safety in the shortest time and at the lowest cost; and (3) utilities have completed 84 percent of the Action Plan tasks at the 51 plants where information was obtained. GAO noted that: (1) NRC does not plan to complete 20 of the 31 tasks because it considers the tasks to be low in priority; and (2) NRC merged the incomplete Action Plan tasks with generic issues into one management system, which replaced the Action Plan as a current statement of the actions necessary to improve nuclear power plant operations and regulation. GAO also found that: (1) the consolidation of all safety issues was reasonable because it allowed NRC to focus its work on the issues most important to safety regardless of how the issues were identified; (2) NRC has moved away from tracking the Action Plan; and (3) NRC should publicly report on the accomplishments of the plan and show how incomplete tasks will be pursued and reported on under the new management system.

Recommendation To Agencies: To inform Congress on utilities' and NRC progress in implementing the Three Mile Island Action Plan, the Chairman, NRC, should

report to Congress a one-time, item-by-item accounting of the 176 items listed in the Action Plan.

127447

National Toxicology Program: Efforts To Improve Oversight of Contractors Testing Chemicals. HRD-85-66; B-211085. June 28, 1985.

Released July 23, 1985. 32 pp. plus 2 appendices (2 pp.). *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by Richard L. Fogel, Director, Human Resources Division.

Issue Area: Health Delivery and Quality of Care: Other Issue Area Work (5291).

Contact: Human Resources Division.

Budget Function: Health: Health Research (552.0).

Organization Concerned: National Institutes of Health: National Institute of Environmental Health Sciences.

Congressional Relevance: *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Rep.* John D. Dingell.

Abstract: Pursuant to a congressional request, GAO reviewed the National Toxicology Program (NTP) to: (1) assess the adequacy of oversight of NTP contract research activities; and (2) respond to concerns raised by a former NTP contractor. Under NTP, the National Institute of Environmental Health Sciences awards contracts for scientific testing to determine the toxicity or carcinogenic potential of various chemicals.

Findings/Conclusions: GAO found that NTP has improved contract management activities by: (1) assuming oversight responsibilities that were formerly contracted out; (2) relocating and consolidating NTP personnel in one location; (3) beginning the development of a project management handbook; (4) implementing an automated data management system; and (5) contracting for reviews of pathology test results. GAO also found that: (1) NTP is monitoring contracts by conducting annual program reviews and site visits; (2) contractors are generally responsive to NTP quality concerns; (3) NTP is taking action to disqualify five laboratories because of concern over contract performance; and (4) 2 of the 30 live animal tests it reviewed had been compromised. In addition, GAO found that: (1) NTP did not act prejudicially against the former contractor, but terminated that contract and five others for poor performance; (2) the contract was terminated because of concerns over overall test quality and the contractor's failure to adhere to good laboratory standards; (3) NTP did not assign terminated pathology work to the quality assurance contractor that recommended contract termination; and (4) NTP is taking actions to prevent quality assurance contractors from also doing pathology support work.

127562

Observations on Navy Nuclear Weapon Safeguards and Nuclear Weapon Accident Emergency Planning. NSIAD-85-123; B-216376. July 29, 1985.

Released August 2, 1985. 7 pp. plus 3 appendices (20 pp.). *Report* to Rep. Ted S. Weiss; by Frank C. Conahan, Director, National Security and International Affairs Division. Refer to NSIAD-87-15, February 10, 1987, Accession Number 132187.

Issue Area: Navy: Other Issue Area Work (5691).

Contact: National Security and International Affairs Division.

Budget Function: National Defense: Atomic Energy Defense Activities (053.0).

Organization Concerned: Department of the Navy.

Congressional Relevance: *Rep.* Ted S. Weiss.

Abstract: Pursuant to a congressional request, GAO reviewed the Navy's plans to use Staten Island, New York as the home port for a surface action group, which would be capable of handling nuclear-armed cruise missiles.

Findings/Conclusions: GAO found that the Navy: (1) estimated that it would cost $291 million to acquire and construct a home port site on Staten Island; (2) worked with local officials to initiate emergency preparedness plans for the site, but the plans are being developed and cannot yet be evaluated; and (3) filed both classified and unclassified environmental impact statements pertaining to its actions associated with site development. In addition, GAO found that: (1) the Tomahawk cruise missile system that could be handled by the group is one of the safest weapon systems available; (2) if the Navy implements certain safety features and procedural safeguards of the system, the risk of an accident will be reduced to a minimum; and (3) while the Navy has reported three nuclear weapon accidents in the 30 years it has handled nuclear weapons, none of the accidents resulted in damage to a weapon, the release of radioactive material, or danger to civilian populations or property. GAO also found that: (1) in the event of a nuclear weapons accident, the Navy's objective is to render the weapons safe from detonation, recover all classified materials, and assist in restoring the affected area to normal use; (2) the Navy shares accident responsibilities with other federal, state, and local agencies; and (3) national joint nuclear weapons accident response exercises were conducted on three occasions and were generally perceived to be beneficial.

127583

Hazardous Waste Management at Tinker Air Force Base--Problems Noted, Improvements Needed. NSIAD-85-91; B-218940. July 19, 1985.

Released August 2, 1985. 5 pp. plus 4 appendices (24 pp.). *Report* to Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by Frank C. Conahan, Director, National Security and International Affairs Division. Refer to RCED-86-50, December 26, 1985, Accession Number 128951; NSIAD-88-4, October 29, 1987, Accession Number 134530; and NSIAD-87-164BR, July 10, 1987, Accession Number 133461.

Issue Area: Environment (6800); Air Force (5400).

Contact: National Security and International Affairs Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0); National Defense: Department of Defense - Military (Except Procurement and Contracting) (051.0).

Organization Concerned: Department of Defense; Department of the Air Force: Tinker AFB, OK; Defense Logistics Agency: Defense Property Disposal Service.

Congressional Relevance: *House* Committee on Appropriations: Defense Subcommittee; *House* Committee on Armed Services; *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *Senate* Committee on Appropriations: Defense Subcommittee; *Senate* Committee on Armed Services; *Rep.* Michael L. Synar.

Authority: Resource Conservation and Recovery Act of 1976. Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

Abstract: Pursuant to a congressional request, GAO reviewed hazardous waste management practices at Tinker Air Force Base (AFB), Oklahoma.

Findings/Conclusions: GAO found that: (1) the base has been selling, transferring, or disposing of hazardous wastes rather than recycling them, as required by Department of Defense (DOD) waste management policies; (2) an industrial waste treatment plant at the base was not being used to full capacity; (3) rather than repairing a damaged portion of the treatment plant that could handle certain chemicals, the base is having the Defense Property Disposal Service dispose of them; (4) poor management of the plant has led to equipment problems, supply shortages, inadequate written policies, and improper collection, storage, and analysis of waste samples; (5) the base is not in compliance with regulations implementing the Resource Conservation and Recovery Act; (6) inadequate environmental monitoring on the base has caused the contamination of all of the major streams that flow across the base; and (7) the base has had problems with overcharges on hazardous waste disposal contracts.

Recommendation To Agencies: The Secretary of Defense should direct the Secretary of the Air Force to procure all of the equipment necessary to recycle and reuse hazardous waste and identify other recycling opportunities to reduce hazardous waste generation at Tinker AFB. The Secretary of Defense should direct the Secretary of the Air Force to change operational procedures at Tinker AFB to better segregate hazardous wastes to facilitate recycling or reuse. The Secretary of Defense should direct the Secretary of the Air Force to make better use of the industrial waste treatment plant at Tinker AFB to reduce the quantities of hazardous waste requiring disposal off base. The Secretary of Defense should direct the Secretary of the Air Force to exercise greater caution in the selection of disposal sites at Tinker AFB to reduce potential DOD liability for environmental damage caused by their operations. The Secretary of Defense should direct the Secretary of the Air Force to improve monitoring of the manifest system at Tinker AFB to ensure that hazardous waste is properly accounted for and disposed of. The Secretary of Defense should direct the Secretary of the Air Force to improve monitoring of the disposal activities of hazardous waste disposal contractors at Tinker AFB.

127746

Status of the Department of Energy's Implementation of the Nuclear Waste Policy Act of 1982 as of June 30, 1985. RCED-85-156; B-202377. July 31, 1985. 29 pp. plus 6 appendices (9 pp.). *Report* to Sen. James A. McClure, Chairman, Senate Committee on Energy and Natural Resources; Sen. J. Bennett Johnston, Ranking Minority Member, Senate Committee on Energy and Natural Resources; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to RCED-86-42, October 31, 1985, Accession Number 128514; RCED-86-154FS, April 30, 1986, Accession Number 129833; RCED-87-48FS, November 5, 1986, Accession Number 131594; and RCED-86-86, January 31, 1986, Accession Number 129261.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).

Organization Concerned: Department of Energy: Office of Civilian Radioactive Waste Management.

Congressional Relevance: *Senate* Committee on Energy and Natural Resources; *Sen.* J. Bennett Johnston; *Sen.* James A. McClure.

Authority: Nuclear Waste Policy Act of 1982 (P.L. 97-425).

Abstract: Pursuant to a congressional request, GAO reported on the Department of Energy's (DOE) implementation of the Nuclear Waste Policy Act during the quarter ended June 30, 1985. The act established the Office of Civilian Radioactive Waste Management within DOE and required DOE to take certain actions pertaining to the management and disposal of radioactive waste.

Findings/Conclusions: GAO found that, while DOE has made progress toward meeting the act's requirements, it is failing to meet deadlines the act established. During the quarter: (1) DOE identified three potential sites for the packaging and temporary storage of nuclear waste; (2) the President decided to dispose of defense and commercial waste in the same permanent repositories; (3) DOE continued to assess candidate sites for the first permanent repository; (4) DOE finalized its overall strategy and completed several program documents; (5) seven additional lawsuits were filed, all requesting review of DOE repository siting guidelines; (6) DOE initiated programs to improve communications with affected states and organizations, including Indian tribes; and (7) an independent audit firm commissioned by DOE made recommendations to improve DOE accounting procedures, but found that DOE was complying with applicable laws and regulations. In addition, GAO found that the Nuclear Waste Fund balance was about $1.7 billion at the end of the quarter, of which DOE had invested about $1.4 billion to use for future program activities.

127769

Surface Coal Mining Operations in Two Oklahoma Counties Raise Questions About Prime Farmland Reclamation and Bond Adequacy. RCED-85-147; B-219275. August 8, 1985.

Released August 13, 1985. 15 pp. plus 6 appendices (8 pp.). *Report* to Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to RCED-86-221, September 22, 1986, Accession Number 131387; and Testimony, June 26, 1986, Accession Number 130212.

Issue Area: Natural Resources Management: Adequacy of States' Surface Mining Inspection and Enforcement and Office of Surface Mining Monitoring of States' Use of Mine Reclamation Funds (6902); Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Conservation and Land Management (302.0).

Organization Concerned: Department of the Interior: Office of Surface Mining Reclamation and Enforcement; Oklahoma: Department of Mines.

Congressional Relevance: *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *Rep.* Michael L. Synar.

Authority: Surface Mining Control and Reclamation Act of 1977 (P.L. 95-87). Mining Lands Reclamation Act (Oklahoma).

Abstract: Pursuant to a congressional request, GAO reviewed: (1) the bonding system for reclamation of strip-mined land in Oklahoma and in other selected states; (2) the issuance of permits by states to operators who have violated the strip mine law; (3) whether mined

farmland was being reclaimed to its original status; and (4) whether the amount of performance bonds is sufficient to cover reclamation costs should the operator fail to reclaim the land.

Findings/Conclusions: 1AO found that: (1) the land comprising 54 of the 58 mine permits contained some prime soil, but none of this land was permitted as prime farmland because, on the basis of landowner statements, farming had not occurred for 5 of the 10 preceding years after the passage of the Surface Mining Control and Reclamation Act of 1977 (SMCRA); (2) out of the 58 mine permits issued, 3 cropping history records showed that the land had been cropped in 5 of the 10 preceding years and was, therefore, prime farmland; and (3) state officials did not attempt to verify local cropping history records because it was too time consuming. GAO also found that: (1) 19 abandoned sites had been involved in bond forfeiture proceedings since the enactment of SMCRA; however, no reclamation occurred on 12 of the 19 abandoned sites; (2) the Oklahoma Department of Mines (ODOM) increased bond amounts on newly issued permits and on some older permitted areas in order to prevent future reclamation problems; and (3) the ODOM policy of not approving bond releases in order to ensure future bond adequacy delayed bond releases and created financial hardships for mine operators.

127916

EPA-Approved Revisions to State Implementation Plans Allowing Increased Sulfur Dioxide Emissions Were Legal. RCED-85-129; B-217221. August 16, 1985.

Released September 20, 1985. 22 pp. *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to RCED-85-13, December 11, 1984, Accession Number 125835; RCED-86-94, April 22, 1986, Accession Number 130222; and RCED-88-32, December 7, 1987, Accession Number 134872.

Issue Area: Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Rep.* John D. Dingell.

Authority: Clean Air Act. Clean Air Act Amendments of 1977.

Abstract: In response to a congressional request, GAO reviewed: (1) the Environmental Protection Agency's (EPA) approval of state actions to allow increased levels of sulfur dioxide emissions; (2) the impact of such revisions on future economic growth; and (3) the legal basis for these increases.

Findings/Conclusions: GAO found that, from 1981 to 1983, EPA approved 114 revisions to state implementation plans involving sulfur dioxide, 58 of which permitted increased emissions. These revisions allowed a net increase of 1.5 million tons of sulfur dioxide emissions during that period. The GAO review of 18 state plan revisions showed that increased sulfur dioxide emissions could reduce the recreational value of land and waterways, increase building maintenance costs, and increase health care expenses. After a state's adoption and submission to EPA of a state plan revision, EPA approval is mandatory and the revision must meet Clean Air Act criteria. However, states are allowed to attach conditions to their state plan revisions. GAO found that: (1) for the 18 state plan revisions it reviewed, EPA and the states followed the act's key requirements; (2) EPA could improve the techniques it uses in making approval decisions; (3) mathematical models are needed that can better project the interstate impacts of sulfur dioxide emissions and the impact of those emissions on certain types of terrain; and (4) some states calculated compliance with the emission standards by a method that was not approved by EPA. EPA, however, has ongoing research to find methods of correcting these problems.

128021

The Nuclear Waste Policy Act: 1984 Implementation Status, Progress, and Problems. RCED-85-100; B-202377. September 30, 1985. 108 pp. plus 5 appendices (16 pp.). *Report* to Congress; by Charles A. Bowsher, Comptroller General. Refer to Testimony, November 6, 1985, Accession Number 128370; RCED-86-42, October 31, 1985, Accession Number 128514; RCED-86-154FS, April 30, 1986, Accession Number 129833; RCED-87-48FS, November 5, 1986, Accession Number 131594; RCED-87-121, August 31, 1987, Accession Number 133814; RCED-86-86, January 31, 1986, Accession Number 129261; RCED-87-17, April 15, 1987, Accession Number 132701; RCED-87-95FS, February 19, 1987, Accession Number 132206; RCED-87-14, February 9, 1987, Accession Number 132140; and T-RCED-88-55, July 26, 1988, Accession Number 136406.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).

Organization Concerned: Department of Energy: Office of Civilian Radioactive Waste Management; Department of Energy.

Congressional Relevance: *House* Committee on Appropriations: Energy and Water Development Subcommittee; *House* Committee on Energy and Commerce; *House* Committee on Interior and Insular Affairs; *Senate* Committee on Appropriations: Energy and Water Development Subcommittee; *Senate* Committee on Environment and Public Works; *Senate* Committee on Energy and Natural Resources; Congress.

Authority: Nuclear Waste Policy Act of 1982 (P.L. 97-425; 42 U.S.C. 10101). Price-Anderson Act (Atomic Energy Damages) (42 U.S.C. 2210(e)). Environmental Policy Act of 1969 (National). Atomic Energy Act of 1954. Federal Managers' Financial Integrity Act of 1982 (P.L. 97-258). 10 C.F.R. 60. DOE Order 2250.1A.

Abstract: Pursuant to the requirements of the Nuclear Waste Policy Act of 1982, GAO reviewed the Department of Energy's (DOE) progress in implementing the act, focusing on: (1) the DOE approach to selecting a waste disposal site; (2) DOE negotiations with states and Indian tribes for consultation and cooperation agreements; and (3) DOE planning for monitored retrievable spent fuel storage (MRS).

Findings/Conclusions: GAO found that, while DOE achieved several important program objectives in 1984, such as its issuance of final repository siting guidelines and its initiation of spent fuel demonstration projects, it delayed many actions required by the act because of unrealistic scheduling and inadequate contingency planning. Specifically, GAO found that: (1) delays in the issuance of final siting guidelines occurred because DOE was overly optimistic in its planning; (2) while DOE believes that

the act requires that it find only one suitable repository site after final testing, a number of states and other groups have questioned the DOE interpretation and claim that three sites must be found suitable, from which one is to be recommended for a repository; and (3) the DOE approach may jeopardize the program's success because, if backup sites are not available, a successful legal challenge to a site recommendation could cause a major setback to the program. GAO also found that: (1) DOE has negotiated with only one state and an Indian tribe for consultation and cooperation agreements; (2) other states and tribes are waiting for further DOE siting decisions before entering negotiations; and (3) one issue that could affect acceptance of such agreements is the $500-million-per-accident liability limit imposed by law for the nuclear waste activities of DOE and its contractors. In addition, GAO found that it will be difficult for DOE to develop both MRS facilities and repositories in a timely manner because the two parts of the program compete for limited staff and financial resources.

Recommendation To Congress: If Congress decides greater conservatism in siting the first repository is needed to provide backup sites, several available options include: (1) confirming the need for alternative sites, but approving DOE testing plans; (2) requiring additional testing prior to the DOE recommendation of three sites for characterization; (3) directing DOE to characterize more than three sites; or (4) directing DOE to modify its site characterization approach by first testing and then characterizing more than three sites. If the Price-Anderson Act is extended, Congress should increase the act's limits on liability and indemnification for nuclear incidents involving high-level radioactive waste activities.

Recommendation To Agencies: To keep Congress currently and fully informed of DOE progress in implementing the nuclear waste management program, the Secretary of Energy should: (1) submit to Congress written reports, similar to those required of other federal agencies under section 114(e)(2) of the Nuclear Waste Policy Act, giving a separate and full accounting of the reasons for and implications of each actual and expected delay in meeting program deadlines; and (2) address any changes to the program's overall policies or strategies, which may deviate from the mission plan, in each annual report of the Office of Civilian Radioactive Waste Management (OCRWM). To reduce the risks to the waste management program of delays if a selected site cannot be successfully characterized, the Secretary of Energy should prepare contingency plans identifying which site or sites would be considered as backup sites to the three recommended for testing and how, and under what circumstances, that site or sites would be tested. To assist Congress in its deliberations on whether to authorize construction of MRS facilities, the Secretary of Energy should explain to Congress, in the January 1986 MRS proposal, how DOE will ensure that an MRS project would operate within OCRWM so as not to impede progress of the repository program.

128069

Assessment of EPA's Hazardous Waste Enforcement Strategy. RCED-85-166; B-219950. September 5, 1985.

Released October 7, 1985. 19 pp. plus 1 appendix (3 pp.). *Report* to Sen. Edwin (Jake) Garn, Chairman, Senate Committee on Appropriations: HUD-Independent Agencies Subcommittee; Sen. Patrick J. Leahy, Ranking Minority Member, Senate Committee on Appropriations: HUD-Independent Agencies Subcommittee; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to RCED-86-63, February 10, 1986, Accession Number 129286; and RCED-88-101, August 16, 1988, Accession Number 136581.

Issue Area: Environment: Assessing EPA's Initial Efforts To Address Problems Posed by Past Hazardous Waste Disposal Practices (6801).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *Senate* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *Sen.* Patrick J. Leahy; *Sen.* Edwin (Jake) Garn.

Authority: Resource Conservation and Recovery Act of 1976.

Abstract: Pursuant to a congressional request, GAO reviewed and summarized the information obtained through the Environmental Protection Agency's (EPA) Resource Conservation and Recovery Act (RCRA) Compliance, Monitoring, and Enforcement Strategy. Congress provided EPA with funds to develop a compliance monitoring and enforcement policy, and a schedule to ensure 90-percent compliance with these requirements because of its concerns about the low level of compliance with groundwater monitoring standards.

Findings/Conclusions: Under RCRA, EPA has promulgated design and operations requirements for approximately 5,000 treatment, storage, and disposal facilities and, along with authorized states, is responsible for ensuring compliance with the requirements. GAO found that: (1) EPA is working on a technical enforcement guidance document to improve the clarity and enforceability of groundwater monitoring requirements; (2) the EPA enforcement strategy lays out a detailed framework for inspections, follow-up intervals, and enforcement; (3) EPA requested a budget increase for its RCRA enforcement program which GAO was unable to determine was necessary, because of the lack of EPA analysis showing what resources were required; (4) the strategy did not identify the training or skills mix needed to meet the 90-percent compliance goal and there was evidence of training shortages in the groundwater monitoring area; (5) EPA does not track progress toward meeting the 90-percent compliance goal; and (6) while EPA strategy recognizes the importance of federal/state relations, it had not communicated the compliance goal to the states. GAO developed a report format to assess the status of and progress in achieving the 90-percent compliance goal that included: (1) the requirements to be tracked; (2) the number of facilities subject to each requirement; (3) the number of facilities in compliance at the end of the selected reporting period; and (4) the percentage of facilities in compliance.

128088

Status of EPA's Efforts To Regulate Chemical Substances as Hazardous Air Pollutants Under the Clean Air Act. RCED-85-168; B-220242. September 30, 1985.

Released October 8, 1985. 3 pp. plus 3 enclosures (10 pp.). *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division.

Issue Area: Environment: Adequacy of Federal and State Efforts To Regulate Toxic Air Pollutants (6805).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Rep.* John D. Dingell.

Authority: Clean Air Act Amendments of 1970.

Abstract: GAO reported on the status of EPA efforts to fulfill a commitment to make a decision regarding the need for regulation of 20 to 25 chemical substances as hazardous air pollutants.

Findings/Conclusions: GAO noted that EPA now issues notices of intent to list or regulate specific chemicals where regulation seems warranted. Since these notices are not legally binding regulatory decisions, they do not require EPA to propose emission standards within 180 days, as is required when formal listing decisions are announced. In order to meet the Clean Air Act's requirements, EPA will publish legally binding regulatory decisions when it believes it is within 180 days of publishing proposed emission standards. EPA plans to: (1) publish either notices of intent or final decisions concerning the regulation of 23 chemicals by the end of 1985; (2) publish notices within the next 3 months regarding its regulatory intentions concerning seven additional substances; and (3) streamline the regulatory decisionmaking process by submitting to the Science Advisory Board health assessment documents for only those substances it would probably regulate. Based on discussions with EPA officials and members of the Board and a review of the Clean Air Act, as well as the Board's enabling legislation, GAO found that the EPA decision to be more selective in its submissions to the Board was consistent with the legislation.

128298

Information on the Forest Service's Efforts to Control the Spread of the Western Spruce Budworm in the Carson National Forest . RCED-86-8; B-220729. October 30, 1985.

Released November 4, 1985. 5 pp. *Report* to Sen. Pete V. Domenici; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division.

Issue Area: Food and Agriculture: Improving the Efficiency, Economy, and Cost-Effectiveness of Management of U.S. Forests (6512).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Conservation and Land Management (302.0).

Organization Concerned: Forest Service.

Congressional Relevance: *Sen.* Pete V. Domenici.

Abstract: Pursuant to a congressional request, GAO provided information on the Forest Service's efforts to prevent and suppress the spread of the western spruce budworm in the Red River Canyon area of the Carson National Forest. GAO also studied how the public influenced the Forest Service's decision to initiate a budworm suppression program in the area.

Findings/Conclusions: The western spruce budworm is a common pest to conifer and spruce trees; the Carson National Forest has experienced a number of major budworm infestations since 1922 and, by 1984, budworm outbreaks had defoliated about 67 percent of the mixed conifer and spruce trees in the Forest. GAO found that the Forest Service uses chemical and biological pesticides to control budworms; however, in 1984, the Forest Service agreed to a legal settlement that restricted its use of aerially-applied pesticides in the Forest. GAO also found that, under the current suppression program, the Forest Service: (1) injected a number of trees with a chemical pesticide; (2) sprayed a number of trees with a biological pesticide; (3) aerially sprayed the biological pesticide over about 25,880 acres of federal, state, and private land; and (4) plans to make aerial applications of the biological pesticide in 1986 and 1988 and, if necessary, in 1987 and 1989. The Forest Service initiated the program to maintain tourism, recreational opportunities, and the natural state of wilderness areas. In addition, GAO found that the Forest Service's decision was influenced by: (1) state concerns that recreational values in the area would degrade, causing a detrimental effect on state and local tax revenues; (2) congressional concerns that it undertake a suppression program; (3) local legislation that encouraged a suppression program; and (4) local concerns over tourism income for small businesses, the scenic quality of the area, and depressed property values.

128341

A Bibliography of Documents Issued by the GAO on Matters Related to: Environmental Protection. RCED-85-154. August 1985. 144 pp. *Report* by J. Dexter Peach, Director, Resources, Community, and Economic Development Division.

Issue Area: Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Abstract: This bibliography includes information on documents directly or indirectly related to environmental protection that have been released by GAO between January 1981 and December 1984. The documents included are representative of the broad interrelationship which exists between the environmental area and other areas of interest addressed by GAO such as health, energy, transportation, agriculture, and natural resources.

128370

[Progress and Problems in Implementing the Nuclear Waste Policy Act of 1982]. November 6, 1985. 12 pp. plus 1 attachment (2 pp.). *Testimony* before the House Committee on Science and Technology: Energy Research and Production Subcommittee; by Keith O. Fultz, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-85-27, January 10, 1985, Accession Number 125996; RCED-85-100, September 30, 1985, Accession Number 128021; RCED-85-42, October 19, 1984, Accession Number 125544; RCED-85-65, January 31, 1985, Accession Number 126199; and RCED-85-116, April 30, 1985, Accession Number 126921.

Contact: Resources, Community, and Economic Development Division.

Organization Concerned: Department of Energy; Confederated Tribes of the Umatilla Indian Reservation; Washington.

Congressional Relevance: *House* Committee on Science and Technology: Energy Research and Production Subcommittee; *Senate* Committee on Energy and Natural Resources.

Authority: Nuclear Waste Policy Act of 1982. Price-Anderson Act (Atomic Energy Damages).

Abstract: Pursuant to a congressional request, GAO testified on the progress of the Department of Energy's (DOE) nuclear waste program and its problems in implementing the Nuclear Waste Policy Act. DOE has made progress in some areas such as the issuance of final repository siting guidelines and

completion of a program planning document; however, it has had difficulty meeting many of the established schedules. Its plans for construction of a monitored retrievable storage facility could hinder the repository program because both programs will be competing for limited staff and financial resources. In addition, DOE has not been able to conclude cooperative agreements because of state and tribal concerns about nuclear waste accident liability. Although DOE made numerous changes to the final plan to accommodate concerns raised, there were also areas where it disagreed with specific comments received from reviewers and made no modifications to the plan. DOE decided that its monitored retrievable storage facilities should receive the spent fuel, and consolidate and package it to enhance safe, timely, and reliable operation of the system. However, these revisions of the storage facility's role may present problems in: (1) increased costs and risks for transportation; (2) storage of defense and civilian nuclear wastes; and (3) construction of the facility by diverting financial and technical resources. GAO believes that: (1) a more conservative approach to the preparation of the draft environmental assessments might have eliminated some difficulties experienced in interpreting the guidelines; (2) repeatedly missed target dates for finalization of documents, such as environmental assessments, weakened the program's credibility; (3) DOE should promptly notify Congress of deviations in its program schedules in order for Congress to effectively conduct oversight activities; and (4) DOE should resolve liability issues before states finalize the cooperative agreements.

128383

Biotechnology: The U.S. Department of Agriculture's Biotechnology Research Efforts. RCED-86-39BR; B-220899. October 25, 1985. 3 pp. plus 11 appendices (74 pp.). *Briefing Report* to Rep. Don Fuqua, Chairman, House Committee on Science and Technology; by Brian P. Crowley, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-86-59, March 25, 1986, Accession Number 129699; Testimony, May 8, 1986, Accession Number 129809; RCED-86-187, August 8, 1986, Accession Number 130990; Testimony, December 4, 1985, Accession Number 128550; and RCED-88-64BR, December 14, 1987, Accession Number 134828.

Issue Area: Food and Agriculture: Effectiveness of U.S. Food/Agriculture Products in Satisfying Safety, Quality, and Dietary Needs (6508); Environment: Evaluation of the Federal Pesticide Regulatory Process' Capability To Protect Public Health and the Environment From Unreasonable Risks (6806); Science and Technology Policy and Programs: Other Issue Area Work (9391).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Agriculture: Agricultural Research and Services (352.0).

Organization Concerned: Department of Agriculture: Agricultural Research Service; Department of Agriculture: Cooperative State Research Service; Department of Agriculture: Science and Education Administration: Office of Grants and Program Systems.

Congressional Relevance: *House* Committee on Science and Technology; *Rep.* Don Fuqua.

Abstract: In response to a congressional request, GAO reported on the extent of the Department of Agriculture's (USDA) biotechnology research efforts at USDA research facilities and facilities which it funds at state agriculture experiment stations and universities.

Findings/Conclusions: GAO found that USDA is partially or wholly funding 778 biotechnology research projects at a cost of $40.5 million. State agricultural experiment stations and veterinary colleges reported that: (1) they conducted 495 USDA-funded projects during fiscal year (FY) 1984; (2) they used a variety of biotechnology techniques in the research; (3) recombinant DNA was used in 54 percent of the projects; (4) 18 percent of the projects were expected to involve the deliberate release of genetically engineered organisms into the environment; and (5) scientists anticipated no problems from the planned releases or expected that any problems arising from the experiments would be controllable. The Agricultural Research Service (ARS) reported that it was conducting 183 biotechnology research projects with an estimated FY 1985 cost of $26.4 million; however, it did not identify the biotechnology research techniques used or specify which projects were expected to result in the deliberate release of genetically engineered organisms into the environment. The Office of Grants and Program Systems reported that it funded 145 biotechnology research projects at a cost of $4.8 million in FY 1984. GAO found that: (1) 45 of these projects duplicated state agricultural experiment station and ARS projects; (2) recombinant DNA was the prevalent technique used; and (3) 4 of the projects are expected to involve a deliberate release of genetically engineered organisms into the environment.

128483

EPA's Sanctions Policy Is Not Consistent With the Clean Air Act. RCED-85-121; B-208593. September 30, 1985.

Released November 22, 1985. 26 pp. plus 3 appendices (11 pp.). *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by Milton J. Socolar (for Charles A. Bowsher, Comptroller General). Refer to RCED-86-6, December 18, 1985, Accession Number 129022; T-RCED-87-8, April 27, 1987, Accession Number 134600; RCED-88-46BR, January 29, 1988, Accession Number 135086; and RCED-88-40, January 26, 1988, Accession Number 134947.

Issue Area: Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Rep.* John D. Dingell.

Authority: Clean Air Act. Clean Air Act Amendments of 1970 (P.L. 91-604). Clean Air Act Amendments of 1977 (P.L. 95-95). Department of Housing and Urban Development--Independent Agencies Appropriation Act, 1984. Executive Order 12291.

Abstract: Pursuant to a congressional request, GAO reviewed: (1) the legality and appropriateness of the sanctions policy adopted by the Environmental Protection Agency (EPA) for communities that fail to meet air quality standards imposed by the Clean Air Act; and (2) the effects of a long-standing construction ban in communities that failed to meet air quality standards before the deadline the act imposed.

Findings/Conclusions: EPA has the authority under the act to impose sanctions against communities that fail to meet the act's requirements, including: (1) banning construction or modification of factories or other facilities that would be major pollution sources; and (2) reducing EPA or federal highway grants for activities that might

contribute to increased pollution. GAO found that: (1) for states and communities that missed a December 1982 deadline, EPA decided to call for revised air quality implementation plans and set new deadlines; (2) subsequently, Congress prohibited EPA from imposing sanctions in states that had submitted implementation plans, whether or not the plans would result in air quality improvements; and (3) EPA has not changed its sanction policy, which could be a violation of the act because it does not impose automatic sanctions on communities that fail to meet the act's requirements. In addition, GAO found that construction bans that were imposed on communities that failed to meet 1978 and 1979 implementation deadlines have had little effect because: (1) the sluggishness of the economy during the period in question caused a decline in planned construction; (2) EPA originally designed the ban so that it would have limited applications; (3) some companies were able to design and construct facilities that emitted pollutants at acceptable rates; and (4) a large percentage of air pollution comes from sources other than factories and buildings.

Recommendation To Agencies: The Administrator, EPA, should either: (1) develop and implement a policy to provide sanctions for areas not attaining air quality standards by the deadlines specified in the Clean Air Act; or (2) seek relief through proposed legislation from the applicable Clean Air Act provisions, which GAO believes require the imposition of such sanctions.

128484

Air Pollution: Environmental Protection Agency's Inspections of Stationary Sources. RCED-86-1BR; B-220319. October 24, 1985.

Released November 25, 1985. 6 pp. plus 2 appendices (45 pp.). *Briefing Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division.

Issue Area: Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency; PEI Associates, Inc.

Congressional Relevance: *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Rep.* John D. Dingell.

Authority: Clean Air Act.

Abstract: Pursuant to a congressional request, GAO reviewed the Environmental Protection Agency's (EPA) inspection program for stationary air pollution sources, focusing on: (1) whether EPA was conducting inspections as required; and (2) whether the EPA inspections provide adequate assurance that the requirements of the Clean Air Act are being met. As part of its review, GAO contracted for a study of inspection adequacy with a firm that helped EPA develop its inspection guidelines.

Findings/Conclusions: GAO found that: (1) EPA guidelines for inspection frequency call for differing inspection intervals based on the type of pollutant emitted by each site; (2) EPA inspection guidelines define a minimally acceptable inspection as a visible emissions check combined with a review of site records and observations of site operating equipment; and (3) while the private study indicated that numerous additional violations might be detected if inspections included detailed engineering analyses, EPA does not believe that such analyses are necessary to determine compliance. GAO also found that EPA regional offices: (1) are responsible for inspecting sites which state or local agencies agree to inspect but do not; (2) did not inspect 82 percent of the sites which state and local agencies failed to inspect; and (3) failed to inspect 55 percent of the other sites for which they were responsible during the time period studied. In addition, GAO found that: (1) most of the regional offices cited inadequate staff resources as a reason for their failure to conduct required inspections; and (2) EPA is evaluating a system to prioritize the frequency and depth of inspections for sources with a high potential for noncompliance.

128514

Nuclear Waste: Quarterly Report on DOE's Nuclear Waste Program as of September 30, 1985. RCED-86-42; B-202377. October 30, 1985. 41 pp. plus 7 appendices (9 pp.). *Report* to Sen. James A. McClure, Chairman, Senate Committee on Energy and Natural Resources; Sen. J. Bennett Johnston, Ranking Minority Member, Senate Committee on Energy and Natural Resources; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to RCED-85-27, January 10, 1985, Accession Number 125996; RCED-85-100, September 30, 1985, Accession Number 128021; RCED-85-156, July 31, 1985, Accession Number 127746; RCED-85-65, January 31, 1985, Accession Number 126199; RCED-85-42, October 19, 1984, Accession Number 125544; RCED-85-116, April 30, 1985, Accession Number 126921; RCED-86-154FS, April 30, 1986, Accession Number 129833; RCED-87-48FS, November 5, 1986, Accession Number 131594; and RCED-86-86, January 31, 1986, Accession Number 129261.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).

Organization Concerned: Department of Energy: Office of Civilian Radioactive Waste Management.

Congressional Relevance: *Senate* Committee on Energy and Natural Resources; *Sen.* J. Bennett Johnston; *Sen.* James A. McClure.

Authority: Nuclear Waste Policy Act of 1982 (P.L. 97-425). 40 C.F.R. 191.

Abstract: Pursuant to a congressional request, GAO reported on: (1) the status of the Department of Energy's (DOE) implementation of the Nuclear Waste Policy Act of 1982; (2) its progress in meeting legislated deadlines; (3) the status of the Nuclear Waste Fund; and (4) management initiatives and federal relations with states and Indian tribes.

Findings/Conclusions: The act: (1) established a program to develop and construct nuclear waste repositories for nuclear waste disposal; (2) requires consideration of the need for a federal waste facility to package, store, and monitor the waste until disposal; and (3) requires document preparation to aid in designing and selecting sites and cooperating with affected states and Indian tribes in implementing the program. GAO found that DOE has made progress in meeting the act's requirements, but continues to lag behind the legislative timetable. Although the act required that the environmental assessments be issued by January 1, 1985, DOE continued to receive comments on the assessments and did not expect to complete them until late 1985. DOE has issued its final regional characterization reports for the

second repository program and its overall mission plan for the waste program. DOE also began internal negotiations to determine the fees to be paid to the Nuclear Waste Fund for the disposal of high-level defense wastes. A new lawsuit was filed during the quarter in which Tennessee contended that DOE violated the act when it conducted a study of the suitability of three Tennessee locations for a monitored retrievable storage facility without any state involvement. DOE is working to resolve inconsistencies in data on the verification of one-time fees for reactors and facilities. Although negotiations have begun with the Indian tribes for formal consultation and cooperation agreements, state and tribal leaders indicated that their confidence in DOE implementation of the program remained low.

128544

Radiation Accident: Incident at Clear Air Force Station, Alaska. NSIAD-86-9; B-217674. November 7, 1985. 42 pp. plus 4 appendices (27 pp.). *Report* to Rep. Don Young; by Frank C. Conahan, Director, National Security and International Affairs Division.

Issue Area: Air Force: Other Issue Area Work (5491); Research, Development, Acquisition, and Procurement: Ensuring Effective and Efficient Spending of Public Funds Through DOD Contracting Policies, Procedures, and Practices (5704); Health Delivery and Quality of Care: Other Issue Area Work (5291); Employment and Education: Other Issue Area Work (5391).

Contact: National Security and International Affairs Division.

Budget Function: National Defense: Department of Defense - Procurement and Contracts (051.2); Health: Consumer and Occupational Health and Safety (554.0); Education, Training, Employment, and Social Services: Other Labor Services (505.0).

Organization Concerned: Department of the Air Force: Clear AFS, AK; FELEC Services, Inc.; Department of the Air Force.

Congressional Relevance: *House* Committee on Appropriations: Defense Subcommittee; *House* Committee on Armed Services; *Senate* Committee on Appropriations: Defense Subcommittee; *Senate* Committee on Armed Services; *Rep.* Don Young.

Authority: Employees' Compensation Act (Injuries) (5 U.S.C. 8101 et seq.). Tort Claims Act (28 U.S.C. 2671 et seq.). Workmen's Compensation Act (Alaska). Alaska Stat. (sc23.30 (1984).

Abstract: Pursuant to a congressional request, GAO investigated the conduct of the Air Force and its contractor in responding to the 1983 radiation accident at Clear Air Station, Alaska, to determine whether: (1) the contractor fulfilled all the required services in compliance with the terms of the contract; (2) Air Force actions in administering the contract were beyond reproach; and (3) affected employees have been afforded the best available medical evaluation, treatment, and follow-up they are entitled to under law.

Findings/Conclusions: GAO noted that, according to Air Force and contractor investigation reports, the accident occurred because of the inadvertent actions of a contractor technician. Upon investigation, GAO found that: (1) the technician's action resulted in the workers' exposure to radiation because the equipment was not laid out and operated as required by the contract; (2) contractor noncompliance with contract specifications and problems in contract management practices allowed the accident to go undetected for 8 minutes; (3) there was some delay in providing medical services to the victims immediately following the accident; and (4) the contractor reduced staffing in key control rooms below the minimum manning requirement. GAO also found that: (1) maintenance technicians on duty were not fully qualified to perform in their assigned positions; (2) the quality assurance evaluators (QAE) monitoring the contract were neither technically trained in radar operation nor had prior experience in procurement procedures or contract administration; and (3) although there was some delay in providing medical evaluations to the victims in the 24 hours following the accident, the victims have received extensive medical evaluations since the accident.

Recommendation To Agencies: The Secretary of the Air Force should direct the Commander of the Space Command to conform the safety system interlocks to specifications and follow all technical order procedures for entering and exiting the radome. The Secretary of the Air Force should direct the Commander of the Space Command to change the waveguide layout, wiring, and automatic switching functions to properly align prime transmitters with corresponding radars. The Secretary of the Air Force should direct the Commander of the Space Command to require the contractor to comply with minimum manning requirements in monitoring and control rooms, in accordance with the statement of work. The Secretary of the Air Force should direct the Commander of the Space Command to review the contractor's technician assignment practices to ensure that technicians are fully trained and qualified in the monitoring and control rooms they are assigned to. The Secretary of the Air Force should direct the Commander of the Space Command to ensure that only trained QAE, fully qualified in evaluating contractor compliance with technical specifications, are assigned, especially in highly technical areas such as the operation and maintenance of communication and electronic equipment. The Secretary of the Air Force should conduct a survey of technical order compliance and safety procedures at other radar installations to determine if similar problems may exist. If noncompliance with technical orders or other problems are identified, corrective actions should be taken.

128548

Operation Crossroads: Personnel Radiation Exposure Estimates Should Be Improved. RCED-86-15; B-219252. November 8, 1985. Released December 4, 1985. 55 pp. plus 4 appendices (53 pp.). *Report* to Sen. Alan Cranston, Ranking Minority Member, Senate Committee on Veterans' Affairs; by Charles A. Bowsher, Comptroller General. Refer to Testimony, December 11, 1985, Accession Number 128596; NSIAD-87-15, February 10, 1987, Accession Number 132187; and RCED-87-134, September 29, 1987, Accession Number 134247.

Issue Area: Energy: Other Issue Area Work (6491).

Contact: Resources, Community, and Economic Development Division.

Budget Function: National Defense: Defense-Related Activities (054.0); Veterans Benefits and Services: Other Veterans Benefits and Services (705.0).

Organization Concerned: Defense Nuclear Agency; Department of Defense; Veterans Administration.

Congressional Relevance: *House* Committee on Appropriations: Defense Subcommittee; *House* Committee on Armed Services; *Senate* Committee on Appropriations: Defense Subcommittee; *Senate* Committee on Armed Services; *Senate* Committee on Veterans' Affairs; *Sen.* Alan Cranston.

Authority: Veterans' Dioxin and Radiation Exposure Compensation Standards Act (P.L. 98-542).

Abstract: In response to a congressional request, GAO reviewed certain issues concerning radiation safety activities

during the 1946 Operation Crossroads nuclear test to answer questions raised by private citizens about the accuracy of the Defense Nuclear Agency's (DNA) radiation exposure estimates, which are used by the Veterans Administration (VA) in adjudicating former participants' radiation-related disability claims. These issues concerned the: (1) reliability of the radiation dose film badges used; (2) adequacy of the personnel decontamination procedures; (3) appropriateness of the military response to recommendations made by the radiological safety office regarding safety issues; and (4) accuracy of DNA reconstruction efforts.
Findings/Conclusions: The DNA report on Operation Crossroads concluded that personnel had not been overexposed to radiation, based on data recorded on film badges worn by about 6,300 of the 42,000 participants and reconstructed external and internal radiation dose estimates for the participants. GAO found that the exposure estimates for each of the four radiation types may need adjustment because: (1) the film badges were not reliable for measuring both external gamma and beta radiation, as intended, and were not worn by all Crossroads participants; (2) personnel decontamination procedures did not provide adequate protection for Crossroads personnel throughout the operation; and (3) the DNA dose reconstruction analysis for alpha and beta radiation did not properly estimate the possible personnel exposure from inhalation, ingestion, or open wounds.
Recommendation To Agencies: The Secretary of Defense should direct DNA to adjust, where feasible, the Crossroads participants' exposure estimates by assigning, given the limited sensitivity range of the Crossroads film, some external gamma radiation dose to each film badge that was reported to have read zero, and developing an error range for each Crossroads film badge reading that recognizes film and film processing inaccuracies. The Secretary of Defense should direct DNA to adjust, where feasible, the Crossroads participants' exposure estimates by estimating the extent to which personnel received additional radiation exposure from a lack or violation of comprehensive decontamination procedures. The Secretary of Defense should direct DNA to adjust, where feasible, the Crossroads participants' exposure estimates by reevaluating and disclosing the possible errors or uncertainties associated with its analysis of internal radiation exposure by inhalation. The Secretary of Defense should direct DNA to adjust, where feasible, the Crossroads participants' exposure estimates by analyzing possible internal radiation exposure from ingestion or through cuts or open wounds; moreover, with respect to ingestion, assessing those scenarios that offered the greatest opportunity for internal radiation exposure, such as when crews remanned target ships after Operation Crossroads. The Secretary of Defense should direct DNA to adjust, where feasible, the Crossroads participants' exposure estimates by reassessing the accuracy of the external beta radiation dose information for those Crossroads participants who wore film badges and, given that all Crossroads participants did not wear film badges, performing a dose reconstruction for external beta radiation. The Secretary of Defense should require DNA to document, where any of the preceding actions have been determined not to be feasible, the reasons for each such determination so that the military services can provide this information to VA and the affected veterans. The Secretary of Defense should direct DNA, in implementing its new standards for reporting radiation exposure estimates to VA, to not only require the military services to disclose the error range associated with reconstructed exposure estimates, but also require them to disclose the error range associated with individual film badge readings.

128550

[Review of the Department of Agriculture's Role in Regulating Biotechnology]. December 4, 1985. 12 pp. *Testimony* before the House Committee on Science and Technology: Investigations and Oversight Subcommittee; by Brian P. Crowley, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-86-39BR, October 25, 1985, Accession Number 128383.

Contact: Resources, Community, and Economic Development Division.
Organization Concerned: Department of Agriculture; National Institutes of Health.
Congressional Relevance: *House* Committee on Science and Technology: Investigations and Oversight Subcommittee.
Abstract: In response to a congressional request, GAO discussed the Department of Agriculture's (USDA) role in regulating biotechnology to determine: (1) how the programs relate to decisionmaking concerning the deliberate release of genetically engineered organisms into the environment; and (2) the relationship between USDA and other federal agencies with biotechnology responsibilities. GAO found that: (1) 778 biotechnology research projects were funded by USDA during 1984 and 1985; (2) 87 of the projects were expected to involve the deliberate release of genetically engineered organisms into the environment; (3) USDA has taken an active role in developing and overseeing the new biotechnologies; (4) USDA has adopted National Institutes of Health guidelines and has established an internal policy requiring compliance with these policies in order to receive USDA research funds; (5) USDA officials have expressed confidence in their ability to regulate the new biotechnologies; (6) many USDA agencies are responsible for biotechnology regulation, but their specific roles have not been clearly defined; (7) USDA decisionmaking in biotechnology is being influenced by other agency involvement; (8) USDA wants to proceed carefully in this area because of expected legal challenges; (9) there are many instances of interaction between USDA and other agencies and, while there have been disagreements, the agencies seem to be able to work things out; and (10) USDA has not been very effective in explaining to the public its views on biotechnology and the regulatory role it will play.

128596

[Operation Crossroads: Personnel Radiation Exposure Estimates Should Be Improved]. December 11, 1985. 14 pp. plus 1 attachment (2 pp.). *Testimony* before the Senate Committee on Veterans' Affairs; by Keith O. Fultz, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-86-15, November 8, 1985, Accession Number 128548.

Contact: Resources, Community, and Economic Development Division.
Organization Concerned: Defense Nuclear Agency; Veterans Administration.
Congressional Relevance: *Senate* Committee on Veterans' Affairs.
Abstract: GAO discussed its report on radiation safety during Operation Crossroads, a nuclear weapons test conducted in the Pacific Ocean in 1946. GAO stated that the Defense Nuclear Agency (DNA) inaccurately estimated radiation exposure for personnel involved in the test because it did not: (1) allow for the inaccuracy of the radiation film badges used; (2) allow for possible errors in film processing or equipment handling; (3) account for

exposure resulting from poor personnel decontamination practices; or (4) measure internal radiation exposure resulting from inhalation, ingestion, and exposure through open wounds. GAO believes that DNA should: (1) adjust its exposure estimates to account for these factors; and (2) inform the Veterans Administration and affected veterans if it is not feasible to adjust the estimates.

128618

Chemical Inventory: Environmental Protection Agency's Proposed Inventory Update. RCED-86-47FS; B-203051. December 4, 1985.

Released December 17, 1985. 2 pp. plus 2 appendices (16 pp.). *Fact Sheet* to Rep. James J. Florio, Chairman, House Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-86-63, February 10, 1986, Accession Number 129286.

Issue Area: Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Other Natural Resources (306.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; *Rep.* James J. Florio.

Authority: Toxic Substances Control Act.

Abstract: Pursuant to a congressional request, GAO reviewed the Environmental Protection Agency's (EPA) proposed approach for updating its chemical substance inventory as authorized by the Toxic Substances Control Act.

Findings/Conclusions: GAO found that EPA proposed to exempt: (1) four categories of chemicals from the inventory update in an effort to focus the inventory on the chemicals for which EPA is most likely to need information; (2) large manufacturers from reporting on any chemical manufactured in quantities less than 10,000 pounds annually; and (3) small manufacturers, which are generally exempt from most reporting requirements under the act. In addition, EPA plans to add an exemption override to the final rule that will require manufacturers to report on certain chemicals that have been of regulatory concern, even if those chemicals fall into one of the exempted categories. Although many of the users interviewed agreed with the proposed exemptions, some raised concerns as to whether chemicals that have been designated as hazardous or will be designated as acutely toxic air pollutants should be exempt from the inventory update. EPA officials stated that it would be better for EPA to use a separate data-gathering rule to obtain all necessary information on those hazardous chemicals. However, EPA has not decided whether or how to gather these data. GAO believes that: (1) the update would provide an opportunity to obtain information on those substances that EPA has designated or plans to designate as hazardous; and (2) the inventory can serve as a reference for identifying the production location for chemicals which are currently exempt from the inventory update that become involved in emergency or accident situations.

128653

Environment, Safety, and Health: Information on Three Ohio Defense Facilities. RCED-86-51FS; B-221188. November 29, 1985.

Released December 17, 1985. 2 pp. plus 3 appendices (51 pp.). *Fact Sheet* to Sen. John H. Glenn, Ranking Minority Member, Senate Committee on Governmental Affairs: Energy, Nuclear Proliferation and Government Processes Subcommittee; by Keith O. Fultz, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-86-61, December 13, 1985, Accession Number 128807; RCED-86-76, May 6, 1986, Accession Number 130151; RCED-86-192, September 8, 1986, Accession Number 131121; T-RCED-87-7, March 17, 1987, Accession Number 132405; and RCED-88-62, December 16, 1987, Accession Number 134766.

Issue Area: Energy: Other Issue Area Work (6491).

Contact: Resources, Community, and Economic Development Division.

Budget Function: National Defense: Atomic Energy Defense Activities (053.0).

Organization Concerned: Department of Energy: Feed Materials Production Center, Fernald, OH; Department of Energy: Portsmouth Uranium Enrichment Complex, OH; Department of Energy: Mound at Miamisburg, OH.

Congressional Relevance: *Senate* Committee on Governmental Affairs: Energy, Nuclear Proliferation and Government Processes Subcommittee; *Sen.* John H. Glenn.

Authority: Clean Air Act Amendments of 1970. Clean Water Act of 1977. Toxic Substances Control Act. Resource Conservation and Recovery Act of 1976. DOE Order 5480.1. DOE Order 5480.4. DOE Order 5480.10.

Abstract: In response to a congressional request, GAO reviewed the Department of Energy's (DOE) effectiveness in protecting its workers, the community, and the environment at three defense production facilities in Ohio.

Findings/Conclusions: GAO found that: (1) the three plants must meet and comply with numerous regulations, procedures, and standards to minimize environmental degradation from their operations and promote worker safety and health; (2) for the last 5 years, contractor records indicated that the plants have complied with DOE radioactive air emission and water release standards; (3) DOE is in the process of correcting or taking actions to address environmental problems at each plant; and (4) over the 30 years the three plants have operated, numerous employees have been exposed to radioactive and nonradioactive substances, but most exposures have been within prescribed DOE standards. At the first plant, GAO found that: (1) radioactivity was predominantly released into the air; (2) inadequate control of surface water runoff may have resulted in the uranium contamination of three off-site and two on-site wells; (3) there has been soil contamination both on and off site; and (4) there are deficiencies in the radiation protection program. At the second plant, GAO found that the plant has not: (1) identified all sources of hazardous emissions; (2) obtained required permits; and (3) properly recorded some polychlorinated biphenyl wastes generated since 1982. GAO found that the third plant's program to monitor primary pathways of potential contamination and actions to control air releases from the plant exceeded requirements, and its safety statistics have been among the best in the past 5 years.

128709

Routing Small Shipments of Hazardous or Sensitive Cargo. NSIAD-86-34; B-211456. December 20, 1985. 3 pp. plus 1 enclosure (17 pp.). *Report* to Maj. Gen. Harold I. Small, Commander, Department of the Army: Military Traffic Management Command; by Henry W. Connor, Senior Associate Director, National Security and International Affairs Division. Refer to PLRD-83-70, May 31, 1983, Accession Number 119884.

Issue Area: Army: Other Issue Area Work (5591); Transportation: DOT Effectiveness in Managing Its Safety Enforcement Program (6601).
Contact: National Security and International Affairs Division.
Budget Function: National Defense: Department of Defense - Military (Except Procurement and Contracting) (051.0); Transportation: Ground Transportation (401.0); Transportation: Air Transportation (402.0).
Organization Concerned: Department of the Army: Military Traffic Management Command.
Congressional Relevance: *House* Committee on Appropriations: Defense Subcommittee; *House* Committee on Armed Services; . *Senate* Committee on Appropriations: Defense Subcommittee; *Senate* Committee on Armed Services.
Abstract: GAO evaluated the Military Traffic Management Command's (MTMC) actions in response to previous GAO recommendations concerning the routing of small shipments of hazardous or sensitive cargo.
Findings/Conclusions: GAO found that MTMC has attempted to comply with earlier report recommendations by: (1) obtaining and issuing additional installation shipping and receiving data; (2) making and documenting cost comparisons; (3) making more disclosures of shipping requirements; (4) maintaining more distribution records; and (5) establishing standard operating procedures which assign responsibilities and define procedures for selecting carrier service on small shipments of ammunition, explosives, and weapons. However, GAO found that MTMC instructions and guidelines are sometimes incomplete, unclear, or not followed, resulting in: (1) the preclusion of the use of the lowest-cost air taxi service; (2) reliance on incomplete and conflicting information; (3) questionable cost analysis; and (4) inconsistent consideration of shipment time factors.
Recommendation To Agencies: The Commander, MTMC, should revise and expand MTMC instructions to shippers for submitting requests for routing advice. The Commander, MTMC, should make sure MTMC guidelines call for certain challenge criteria on shippers' requirements. The Commander, MTMC, should verify routinely that MTMC guidelines are followed. These instructions and guidelines should specifically: (1) require shippers to certify the necessity for palletization when it is used on small shipments; (2) provide for a requirement that information on air taxi landing fields be continuously updated and any discrepancies between the shippers' information and MTMC information be resolved quickly; (3) require development and use of a MTMC-approved methodology for computing air taxi pickup and delivery costs, which would result in a greater degree of consistency in the costs among installations, and which would be available to the air taxi industry; and (4) define the term required delivery date as it is to be used in requesting routing advice and how it, along with the transportation priority, will be used in making the mode and carrier choice.

128766

EPA-FMFIA: EPA's Implementation of the Federal Managers' Financial Integrity Act. RCED-86-34; B-216946. November 13, 1985. 57 pp. plus 2 appendices (31 pp.). *Report* to Lee M. Thomas, Administrator, Environmental Protection Agency; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to RCED-88-101, August 16, 1988, Accession Number 136581.

Issue Area: Internal Control and Financial Management System Audits: Effectiveness of Federal Agencies in Implementing the Federal Managers' Financial Integrity Act (7401).
Contact: Resources, Community, and Economic Development Division.
Budget Function: Financial Management and Information Systems: Accounting Systems in Operation (998.1).
Organization Concerned: Environmental Protection Agency.
Congressional Relevance: *House* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *House* Committee on Energy and Commerce; . *Senate* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *Senate* Committee on Environment and Public Works.
Authority: Federal Managers' Financial Integrity Act of 1982. Accounting and Auditing Act. Clean Water Act of 1977. Clean Air Act. Resource Conservation and Recovery Act of 1976. Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Insecticide, Fungicide, and Rodenticide Act. Toxic Substances Control Act. Safe Drinking Water Act. Marine Protection, Research, and Sanctuaries Act of 1972. Environmental Policy Act of 1969 (National). Asbestos School Hazard Abatement Act of 1984. Water Pollution Control Act Amendments of 1972 (Federal). Antideficiency Act (31 U.S.C. 1341). OMB Circular A-123. OMB Circular A-127. EPA Order 1000.24.
Abstract: GAO reviewed the Environmental Protection Agency's (EPA) second-year implementation of the Federal Managers' Financial Integrity Act (FMFIA), focusing on: (1) improvements in EPA internal controls and the process EPA uses to evaluate and correct internal control weaknesses; (2) the status of the EPA accounting system and evaluations made to determine whether it conforms to the Comptroller General's requirements for such systems; and (3) the accuracy and completeness of the EPA annual FMFIA report.
Findings/Conclusions: GAO found that, while EPA has made progress in evaluating and improving its internal controls, it did not have an adequate basis for reporting that its systems of internal control met the objectives of FMFIA because: (1) the material weaknesses it reported for 1984 encompassed over 60 percent of its budget; (2) it failed to identify two uncorrected material weaknesses in its Superfund and Resource Conservation and Recovery Act programs that it reported in 1983; (3) it failed to identify material weaknesses in its automatic data processing (ADP) activities; (4) it did not uniformly implement its FMFIA process throughout the agency; and (5) it failed to perform internal control reviews (ICR) for a number of highly vulnerable program areas. GAO also found that EPA did not: (1) have an adequate basis to report that its accounting system was in conformance with the Comptroller General's requirements; (2) properly record and charge certain contract costs; (3) properly deobligate unspent grant funds; (4) establish documentation and data controls for its payroll accounting subsystem; (5) completely correct material weaknesses in its accounting system that it reported in 1983; or (6) adequately test its accounting system in operation to ensure conformance.
Recommendation To Agencies: In future FMFIA annual reports, the Administrator, EPA, should list all EPA internal control material weaknesses until they have been substantially corrected. To more effectively implement the FMFIA process and to provide a stronger basis to report on the status of EPA internal controls, the Administrator, EPA, should fully define the role of EPA program managers in the FMFIA process, with a view toward having managers be more involved in evaluating internal controls. To more

effectively implement the FMFIA process and to provide a stronger basis to report on the status of EPA internal controls, the Administrator, EPA, should schedule ICR for identified high and medium vulnerability weakness areas, where other forms of corrective actions were unsuccessful or inappropriate. To more effectively implement the FMFIA process and to provide a stronger basis to report on the status of EPA internal controls, the Administrator, EPA, should have the FMFIA tracking system monitor and follow up on all internal control weaknesses. To more effectively implement the FMFIA process and to provide a stronger basis to report on the status of EPA internal controls, the Administrator, EPA, should require responsible program managers in the various EPA functional areas to validate that actions taken to correct weaknesses reported as corrected are adequate to prevent or reduce their recurrence. To more effectively implement the FMFIA process and to provide a stronger basis to report on the status of EPA internal controls, the Administrator, EPA, should assess FMFIA training needs and train staff as necessary. The Administrator, EPA, should not report that the EPA accounting system is in conformance with the Comptroller General's principles, standards, and related requirements until the system has been adequately evaluated while in operation. To ensure that the accounting system evaluation made under FMFIA is thorough and comprehensive, the Administrator, EPA, should establish and implement a formal plan, including policies and procedures, on how EPA will implement section 4. The plan should include requirements for: (1) reviewing and testing the Financial Management System in operation to determine conformance with EPA policies and procedures and the Comptroller General's requirements; and (2) using Office of the Inspector General-reported accounting system weaknesses to determine whether planned actions have been implemented and whether they resolve the reported problems. To ensure that the accounting system evaluation made under FMFIA is thorough and comprehensive, the Administrator, EPA, should properly record letter-of-credit payments.

128786

Hazardous Waste: Status of Cleanup at the Former Hamilton Air Force Base, California. NSIAD-86-23BR; B-221137. December 6, 1985.

Released January 6, 1986. 2 pp. plus 1 attachment (9 pp.). *Briefing Report* to Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by Harry R. Finley, Senior Associate Director, National Security and International Affairs Division. Refer to NSIAD-87-45, December 15, 1986, Accession Number 132177.

Issue Area: Environment: Assessing EPA's Cleanup of the Worst Abandoned Hazardous Waste Sites (6803); Air Force: Other Issue Area Work (5491).

Contact: National Security and International Affairs Division.

Budget Function: National Defense: Defense-Related Activities (054.0).

Organization Concerned: Department of Defense; Department of the Air Force: Hamilton AFB, CA; Department of the Army.

Congressional Relevance: *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *Rep.* Barbara Boxer; *Rep.* Michael L. Synar.

Abstract: In response to a congressional request, GAO reviewed the Department of Defense's program for identifying and cleaning up hazardous waste on its formerly owned properties and evaluated the quality of Army and Air Force cleanup efforts at a former Air Force base.

Findings/Conclusions: GAO found that toxic and hazardous waste cleanup efforts have been expedited since mid-April 1985, when the Army's and Air Force's roles and responsibilities for the cleanup were defined. The Army has given a high priority to the cleanup efforts it is carrying out on the excess land. Within 3 months after the cleanup work began, the toxic chemicals, debris, and two transformers leaking polychlorinated biphenyls were removed to a staging area on Army land. GAO found that, although the waste from the former radioactive waste disposal repository is located outside the excess area on the Army-retained property, the authorities do not know its exact location and contents. GAO found that the Army: (1) overlooked early warning signs of contamination; (2) identified toxic and hazardous waste problems prior to auction of the excess land but did not formally request the General Services Administration to delay the sale; (3) did not respond to all indications of contamination with cleanups; and (4) did not consider that such signals might indicate additional toxic and hazardous problems. GAO also found that, since the Air Force has yet to provide records on the condition of the land or its past uses, the current cleanup effort must proceed without information on the Air Force's past uses of toxic and hazardous materials, known or suspected areas of contamination, or decontamination efforts.

128807

Environment, Safety, and Health: Environment and Workers Could Be Better Protected at Ohio Defense Plants. RCED-86-61; B-221188. December 13, 1985. 45 pp. *Report to* Sen. John H. Glenn, Ranking Minority Member, Senate Committee on Governmental Affairs: Energy, Nuclear Proliferation and Government Processes Subcommittee; by J. Dexter Peach, Director , Resources, Community, and Economic Development Division. Refer to RCED-86-51FS, November 29, 1985, Accession Number 128653; EMD-81-108, August 4, 1981, Accession Number 115979; RCED-84-50, November 30, 1983, Accession Number 123131; RCED-86-76, May 6, 1986, Accession Number 130151; RCED-86-90, March 21, 1986, Accession Number 130087; RCED-86-192, September 8, 1986, Accession Number 131121; and T-RCED-87-7, March 17, 1987, Accession Number 132405.

Issue Area: Energy: Other Issue Area Work (6491).

Contact: Resources, Community, and Economic Development Division.

Budget Function: National Defense: Atomic Energy Defense Activities (053.0).

Organization Concerned: Department of Energy: Feed Materials Production Center, Fernald, OH; Department of Energy: Portsmouth Uranium Enrichment Complex, OH; Department of Energy: Mound at Miamisburg, OH; Department of Energy.

Congressional Relevance: *House* Committee on Appropriations: Energy and Water Development Subcommittee; *House* Committee on Science and Technology: Natural Resources, Agriculture Research and Environment Subcommittee; *Senate* Committee on Appropriations: Energy and Water Development Subcommittee; *Senate* Committee on Energy and Natural Resources: Energy Research and Development Subcommittee; *Senate* Committee on Governmental Affairs: Energy, Nuclear Proliferation and Government Processes Subcommittee; *Sen.* John H. Glenn.

Authority: Atomic Energy Act of 1954. Clean Air Act Amendments of 1977 (42

U.S.C. 7401 et seq.). Clean Air Act. Clean Air Act Amendments of 1970. Water Pollution Control Act Amendments of 1972 (Federal). Clean Water Act of 1977 (33 U.S.C. 1251 et seq.). Resource Conservation and Recovery Act of 1976 (42 U.S.C. 6901 et seq.). Occupational Safety and Health Act of 1970 (29 U.S.C. 651 et seq.). Toxic Substances Control Act. DOE Order 5480. DOE Order 5482.1A.

Abstract: Pursuant to a congressional request, GAO reviewed the Department of Energy's (DOE) effectiveness in protecting its workers, the community, and the environment at three of its defense production facilities.

Findings/Conclusions: GAO noted that: (1) in two previous reports, it recommended that DOE develop a system to independently verify environmental monitoring data reported by contractors; and (2) DOE did not adopt the recommendation because it believed the contractors' quality assurance programs provided an effective method for ensuring data reliability. GAO found that: (1) each Ohio contractor collects, evaluates, and reports its own radioactive air and water releases; (2) quality assurance programs help ensure that water and air samples are accurately analyzed, but do not verify that data collected are adequate; (3) each plant had environmental problems which resulted in groundwater, soil, or drinking water contamination; (4) two of the plants were not in compliance with hazardous waste laws; and (5) one of the plants was not in compliance with state permits because it had not completed two of four pollution control projects. GAO also found that: (1) the contractors did not always follow the DOE radiological monitoring guide, which recommended that they monitor on- and off-site wells to assess environmental impacts of plant operations; (2) DOE did not adopt the recommendation that it make radiological monitoring guides mandatory for all DOE facilities because it believed contractors would lose flexibility in designing their monitoring programs; (3) contractors received sizable fees even though environmental safety and health (ES&H) problems existed; and (4) DOE appraisal programs were not identifying major ES&H problems.

Recommendation To Agencies: The Secretary of Energy should require that radiological monitoring guides be mandatory for all DOE facilities. The Secretary of Energy should develop a coordinated DOE/state/contractor system to verify contractor-reported data.

128931

Hazardous Waste: Status of Air Force's Installation Restoration Program. NSIAD-86-28BR; B-213706. December 17, 1985.

Released January 21, 1986. 30 pp. *Briefing Report* to Rep. Vic Fazio; by Harry R. Finley, Senior Associate Director, National Security and International Affairs Division. Refer to NSIAD-84-37, November 29, 1983, Accession Number 122982; and NSIAD-85-41, April 12, 1985, Accession Number 126764.

Issue Area: Environment: Other Issue Area Work (6891); Air Force: Other Issue Area Work (5491).

Contact: National Security and International Affairs Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0); National Defense: Department of Defense - Military (Except Procurement and Contracting) (051.0).

Organization Concerned: Department of the Air Force: McClellan AFB, CA.

Congressional Relevance: *Rep.* Vic Fazio.

Authority: Resource Conservation and Recovery Act of 1976. Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

Abstract: Pursuant to a congressional request, GAO reviewed the Air Force's efforts to deal with groundwater contamination at McClellan Air Force Base, specifically the overall organizational structure of the Air Force Installation Restoration Program (IRP).

Findings/Conclusions: GAO noted that the McClellan IRP evidenced a number of problems, including: (1) the Air Force's responsibility and authority for conducting off-base investigations and cleanups; (2) difficulties in preparing an overall statement of work where extensive contamination exists; and (3) the need for greater regulatory agency involvement in IRP. GAO found that: (1) the Department of Defense (DOD) is responsible for all on-base and off-base programs where off-base contamination results solely from on-base disposal sites; (2) the Environmental Protection Agency is responsible for off-base problems where there is a question of whether off-base contamination results from a DOD disposal site; (3) staging allows better preparation of statements of work, based on prior efforts to adequately address contamination magnitude and rate of movement; and (4) early Air Force policy, which prevented the release of preliminary data to regulatory agencies, led to delays and confrontations with regulatory agencies. GAO also found that: (1) Air Force actions to involve regulatory agencies now include the formation of a task force, which provides both regulatory agency and public input to IRP; (2) the Air Force revised its IRP guidance to provide for a multistaged, incremental approach which would include a series of decision points at which data could be shared with the regulatory agencies; and (3) McClellan now performs annual testing of its drinking water supplies to ensure that the water meets state standards.

128932

Pollution Control: Information on Chemical Industry Safety Equipment Expenditures. RCED-86-70FS; B-221424. December 20, 1985.

Released January 21, 1986. 2 pp. plus 1 appendix (5 pp.). *Fact Sheet* to Rep. James J. Florio, Chairman, House Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division.

Issue Area: Environment: Assessing EPA's Cleanup of the Worst Abandoned Hazardous Waste Sites (6803).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Department of Commerce.

Congressional Relevance: *House* Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; *Rep.* James J. Florio.

Abstract: Pursuant to a congressional request, GAO provided information on capital and operating expenditures for pollution control equipment for the chemical and allied products industry.

Findings/Conclusions: GAO provided information that was compiled by the Department of Commerce for the years 1977 through 1983 for the United States and seven states. GAO noted that: (1) it did not verify the accuracy of the data; and (2) accidental releases of hazardous pollutants accounted for only a fraction of the expenditures identified. GAO found that nationwide, the industry incurred over $2 billion in pollution abatement operating costs and over $395 million in pollution abatement capital costs in 1983. The industry's capital costs for pollution abatement have been decreasing since 1977, while its operating costs for pollution abatement have been steadily increasing.

128933

Surface Mining: Interior Department Oversight of State Permitting and Bonding Activities. RCED-86-38; B-220953. December 23, 1985.

Released January 24, 1986. 41 pp. plus 2 appendices (2 pp.). *Report* to Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division.

Issue Area: Natural Resources Management: Adequacy of States' Surface Mining Inspection and Enforcement and Office of Surface Mining Monitoring of States' Use of Mine Reclamation Funds (6902); Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Conservation and Land Management (302.0).

Organization Concerned: Department of the Interior: Office of Surface Mining Reclamation and Enforcement; Department of the Interior.

Congressional Relevance: *House* Committee on Appropriations: Interior Subcommittee; *House* Committee on Interior and Insular Affairs; *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *Senate* Committee on Appropriations: Interior and Related Agencies Subcommittee; *Senate* Committee on Energy and Natural Resources; *Rep.* Michael L. Synar.

Authority: Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201).

Abstract: Pursuant to a congressional request, GAO reviewed the Office of Surface Mining Reclamation and Enforcement's (OSMRE) oversight of state permitting and bonding activities, specifically whether OSMRE oversight: (1) provides adequate assurance that state permitting activities are in compliance with the Surface Mining Control and Reclamation Act of 1977; and (2) enables it to determine the adequacy of performance bonds established to ensure the reclamation of mined land.

Findings/Conclusions: GAO noted that: (1) 24 of the 27 coal states have primary responsibility for developing and enforcing state regulatory programs to control mining within their borders; and (2) OSMRE eastern and western technical centers review state permitting and bonding activities and report their results to the field offices. GAO found that: (1) OSMRE oversight guidance generally outlines the review process, but until recently, it did not include detailed procedures on how the reviews should be conducted; (2) reviewers used different criteria in each state to determine what permits to review, and they prepared little or no documentation to support their findings; (3) technical center findings have often been dropped when challenged by state regulatory and OSMRE field office officials; and (4) some review findings contained errors or misinterpretations of the state's program and included deficiencies which had already been corrected. GAO also found that: (1) a few detailed calculations were made to determine the appropriateness of performance bond amounts; (2) bond adequacy was not addressed in 15 of the 24 states having primary enforcement authority; (3) in those states where the centers commented on bond adequacy, six states were reported as having insufficient bonds to cover the costs of reclamation; and (4) OSMRE developed draft guidelines which require the technical centers to determine the adequacy of bond amounts, but the guidelines do not address how this determination should be done.

Recommendation To Agencies: The Secretary of the Interior should require the Director, OSMRE, to revise the draft bonding guidelines to incorporate procedures for determining the adequacy of reclamation performance bonds established by state regulatory authorities.

128951

Hazardous Waste: Federal Agency Hazardous Waste Disposal at Kettleman Hills, California. RCED-86-50; B-221403. December 26, 1985.

Released January 27, 1986. 13 pp. plus 1 appendix (1 p.). *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to NSIAD-85-91, July 19, 1985, Accession Number 127583.

Issue Area: Environment: Assessing EPA's Initial Efforts To Address Problems Posed by Past Hazardous Waste Disposal Practices (6801).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency; Chemical Waste Management, Inc.

Congressional Relevance: *House* Committee on Public Works; *House* Committee on Government Operations; *House* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *House* Committee on Energy and Commerce; *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Senate* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *Senate* Committee on Environment and Public Works; *Rep.* John D. Dingell.

Authority: Resource Conservation and Recovery Act of 1976. Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Toxic Substances Control Act. Clean Air Act. Clean Water Act of 1977. Executive Order 12088.

Abstract: Pursuant to a congressional request, GAO reviewed whether federal agencies disposed of hazardous wastes at a firm's facility in Kettleman Hills, California after the Environmental Protection Agency (EPA) cited the facility for significant violations of environmental regulations.

Findings/Conclusions: GAO noted that: (1) EPA banned its own use of the Kettleman Hills facility for hazardous waste disposal because of the significant environmental violations discovered; (2) from November 1984 through May 1985, federal agencies disposed of about 8,000 tons of hazardous waste at Kettleman Hills; (3) agencies had no policies or standards for prohibiting the disposal of EPA Superfund cleanup wastes at facilities with significant environmental problems; and (4) EPA does not have the authority to prohibit federal agencies from using commercial facilities that are in violation of environmental regulations. GAO found that: (1) EPA inspections at Kettleman Hills in 1983 and 1984 disclosed that there was no groundwater monitoring system at the facility; (2) the facility had been modified without prior approval; (3) federal agencies disposed of hazardous wastes at the Kettleman facility during the period that the facility was experiencing compliance problems; (4) most of the federally generated waste disposed of, both before and after the Superfund ban, came from Department of Defense (DOD) sources; (5) although policies and procedures require that Resource Conservation and Recovery Act (RCRA) facilities be used for any hazardous waste disposal, they do not prohibit the use of these facilities during times that

the facilities are not in compliance with RCRA environmental regulations; and (6) a lack of agency policy contributed to the substantial quantities of federal wastes disposed at Kettleman Hills at a time when EPA considered the facility not to be in compliance with requirements.

Recommendation To Agencies: The Administrator, EPA, should expand the EPA off-site policy for the disposal of Superfund cleanup waste to also include EPA hazardous waste being disposed of under RCRA. The Administrator, EPA, should encourage other federal agencies to adopt the off-site policy for the disposal of RCRA-regulated hazardous waste in addition to encouraging them to adopt the policy for the disposal of cleanup waste. If the Administrator determines that statutory authority is needed or desirable to ensure adoption and implementation of the policy throughout the federal sector or to ensure the successful enforcement of the policy, the Administrator, EPA, should develop and submit to Congress the appropriate legislative language to achieve these objectives.

128954

Hazardous Waste: Status of Cleanup at the Former West Virginia Ordnance Works. NSIAD-86-22BR; B-221138. December 6, 1985.

Released January 10, 1986. 8 pp. *Briefing Report* to Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by Harry R. Finley, Senior Associate Director, National Security and International Affairs Division.

Issue Area: Environment: Assessing EPA's Cleanup of the Worst Abandoned Hazardous Waste Sites (6803); Air Force: Other Issue Area Work (5491).

Contact: National Security and International Affairs Division.

Budget Function: National Defense: Defense-Related Activities (054.0).

Organization Concerned: Department of the Army: U.S. Army Toxic and Hazardous Materials Command; West Virginia: Department of Natural Resources: Clifton F. McClintic State Wildlife Station; Environmental Protection Agency.

Congressional Relevance: *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *Rep.* Bob Wise; *Rep.* Michael L. Synar.

Authority: Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

Abstract: In response to a congressional request, GAO reviewed the Department of Defense program for identifying and cleaning up hazardous waste on its formerly owned properties and provided a status report on the progress of the decontamination at the former West Virginia Ordnance Works (WVOW).

Findings/Conclusions: In 1942, WVOW was established on approximately 8,300 acres of land for the manufacture of TNT. In 1945, it was closed, decontaminated, and portions were sold or transferred. The Clifton F. McClintic State Wildlife Station was established on 2,450 acres which the War Department had deeded to the state of West Virginia. An inspection of the property revealed particles and chunks of TNT, and in 1960 the Army removed some underground TNT processing lines and surface TNT. In 1982, WVOW was included in the national priorities list because of the importance of the McClintic wetlands and the potential hazard to the public at a popular recreation area located within the WVOW boundaries. GAO found that: (1) after some debate over responsibility for cleanup, the Army took the lead role in the area's investigation and decontamination, which appear to be progressing smoothly; (2) Army personnel believe that TNT and TNT manufacturing by-product contamination is limited to McClintic and adjacent acreage owned by West Virginia and the federal government; (3) monitoring walls around the perimeter of these tracts and on privately owned property have detected no contamination; and (4) the Environmental Protection Agency and the West Virginia Department of Natural Resources were satisfied with the Army's actions.

128973

Hazardous Waste: Status of Private Party Efforts To Clean Up Hazardous Waste Sites. RCED-86-65FS; B-221269. December 27, 1985.

Released January 28, 1986. 2 pp. plus 2 appendices (7 pp.). *Fact Sheet* to Rep. James J. Florio, Chairman, House Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-86-123, May 6, 1986, Accession Number 130081.

Issue Area: Environment: Assessing EPA's Cleanup of the Worst Abandoned Hazardous Waste Sites (6803).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; *Rep.* James J. Florio.

Authority: Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

Abstract: In response to a congressional request, GAO reviewed the Environmental Protection Agency's (EPA) compliance monitoring of responsible party settlements for cleanup at priority hazardous waste sites and prepared a fact sheet summarizing its findings.

Findings/Conclusions: EPA has the authority to compel parties responsible for hazardous site conditions to either perform cleanups themselves or reimburse the government for cleaning up the site. GAO: (1) obtained information on the number, type, and status of responsible party cleanup activities at sites which were designated as the nation's worst; (2) obtained from EPA the estimated value of settlements reached and the estimated amount spent at those sites; and (3) verified responsible party activities performed in EPA Regions I, II, and V that are included in the current review. GAO also summarized the nature, extent, and value of responsible party activities performed at priority sites and provided information on the 73 settlements where the responsible party agreed to begin work, showing the purpose, status, and estimated value of the planned action and the estimated amount spent to date.

129022

Air Pollution: EPA's Strategy To Control Emissions of Benzene and Gasoline Vapor. RCED-86-6; B-221037. December 18, 1985.

Released February 5, 1986. 65 pp. plus 5 appendices (18 pp.). *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to RCED-83-199, August 26, 1983, Accession Number 122439; RCED-85-121, September 30, 1985, Accession Number 128483; RCED-84-62, April 2, 1984, Accession Number 123970; RCED-87-151, August 7, 1987, Accession

Number 133903; and T-RCED-87-8, April 27, 1987, Accession Number 134600.

Issue Area: Environment: Adequacy of Federal and State Efforts To Regulate Toxic Air Pollutants (6805).
Contact: Resources, Community, and Economic Development Division.
Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).
Organization Concerned: Environmental Protection Agency.
Congressional Relevance: *House* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *House* Committee on Energy and Commerce; *Senate* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *Senate* Committee on Environment and Public Works; *Rep.* John D. Dingell.
Authority: Clean Air Act. Clean Air Act Amendments of 1970. Clean Air Act Amendments of 1977.
Abstract: Pursuant to a congressional request, GAO reviewed the Environmental Protection Agency's (EPA) decision to regulate benzene emissions through controls on automobile refuelling.
Findings/Conclusions: GAO noted that: (1) EPA based its decision to control benzene emissions on risk assessments that evaluated the relationship between benzene exposure and the potential occurrence of leukemia; (2) the health, emission, population, and modeling data EPA used were based on assumptions; (3) EPA did not consider three relevant health studies completed between 1981 and 1983 because it believed that the studies would not significantly change its benzene health assessment; (4) EPA emission data showed that three plants were using benzene to manufacture a product used in making plastics and chemicals, but only one plant was actually using benzene at the time EPA issued its final decision; and (5) EPA updated some information that changed its estimate of risk to the public, but was not significant enough to change its 1983 decision. GAO found that: (1) as of October 1985, EPA did not have written guidance detailing how quantitative risk assessment values are developed for hazardous air pollutants; (2) EPA plans to control automobile refuelling emissions will be based on a decision as to whether nationwide or local controls should be implemented; (3) California and the District of Columbia have implemented controls on gasoline pumps in the absence of EPA regulations for controlling refuelling vapor; (4) if the risk from gasoline vapor and/or benzene is not significant, EPA could require controls only in those areas not in compliance with EPA ozone standards; and (5) more than 2 years will be required for implementing the automobile refuelling control options.
Recommendation To Agencies: To improve the risk assessments for hazardous air pollutants, such as benzene, the Administrator, EPA, should direct that the proposed Operating Manual for the EPA Pollutant Assessment Branch include a requirement that, to the extent possible, current and verified data be used in developing quantitative risk assessments or that an explanation be included in the assessment as to why those data are not being used. To improve EPA cost-effectiveness analysis used to help determine the best alternative for controlling automobile refueling vapor emissions, the Administrator, EPA, should direct that range values be provided to reflect the various uncertainties inherent in its cost-effectiveness analysis.

129053

Water Resources: Issues Concerning Expanded Irrigation in the Columbia Basin Project. RCED-86-82BR; B-221748. January 31, 1986. 2 pp. plus 1 enclosure (23 pp.). *Briefing Report* to Rep. James H. Weaver, Chairman, House Committee on Interior and Insular Affairs: General Oversight, Northwest Power, and Forest Management Subcommittee; Rep. George Miller, Chairman, House Committee on Interior and Insular Affairs: Water and Power Resources Subcommittee; by Michael Gryszkowiec, Associate Director, Resources, Community, and Economic Development Division.

Issue Area: Natural Resources Management: Effectiveness and Efficiency of Development, Operation, and Maintenance of Federal Water Resources Projects (6917).
Contact: Resources, Community, and Economic Development Division.
Budget Function: Natural Resources and Environment: Water Resources (301.0).
Organization Concerned: Bureau of Reclamation; Water Resources Council; Washington; United States Fish and Wildlife Service; CH2M Hill, Inc.; Bonneville Power Administration.
Congressional Relevance: *House* Committee on Interior and Insular Affairs: Water and Power Resources Subcommittee; *House* Committee on Interior and Insular Affairs: General Oversight, Northwest Power, and Forest Management Subcommittee; *Rep.* George Miller; *Rep.* James H. Weaver.
Abstract: In response to congressional requests, GAO reviewed the economic and environmental impacts of expanding the irrigated acreage in the Columbia Basin Project from 556,000 acres to nearly 1.1 million acres.
Findings/Conclusions: GAO found that the Bureau of Reclamation's 1984 cost/benefit analysis did not conform to the Water Resources Council's principles and guidelines for preparing such analyses. As a result, the costs were understated and the benefits overstated. The Bureau recognized the limitations of its analysis and has contracted with a consulting firm to perform a major study of the economic and environmental feasibility of expanding the project which will follow the council's principles and guidelines. However, in its economic analysis of the project, the Bureau's consultant will be evaluating the project's impacts on income and employment only within Washington, even though electricity users throughout the four-state Bonneville Power Administration marketing area will be paying for the project. The Bureau's 1984 analysis showed that 46 percent of the construction costs would be paid by irrigators, 34 percent by power users, and 20 percent by Washington State. The Bureau's estimates were in contrast with two other studies which concluded that U.S. taxpayers would pay about 80 percent of the project costs. The other two studies included interest costs in their analyses indicating that these costs, although not repaid, are a project expense. The Fish and Wildlife Service and the state consultant studies indicated that the proposed expansion would not adversely affect fish, wildlife, or water quality.

129062

Annual Report 1985. B-119600. January 29, 1986. 84 pp. plus 5 appendices (51 pp.). by Charles A. Bowsher, Comptroller General.

Contact: Office of the Comptroller General.
Congressional Relevance: Congress.
Authority: Congressional Budget and Impoundment Control Act of 1974. Competition in Contracting Act of 1984. Debt Collection Act of 1982. Davis-Bacon Act (Wage Rates). Legislative Reorganization Act of 1970. Single Audit Act of 1984 (P.L. 98-502). Public Works Improvement Act of 1984 (P.L. 98-501; 98 Stat. 2320). Capital Investment Program Information Act. Foreign Relations Authorization Act, Fiscal Years 1986 and

1987 (P.L. 99-93; 99 Stat. 405). Migration and Refugee Assistance Act of 1962. National Organ Transplant Act (P.L. 98-507). Developmental Disabilities Act of 1984 (P.L. 98-527; 98 Stat. 2662). Balanced Budget and Emergency Deficit Control Act of 1985 (P.L. 99-177). Liberty Coin Act (P.L. 99-61; 99 Stat. 113). Federal Managers' Financial Integrity Act of 1982. General Accounting Office Personnel Act. P.L. 98-473. 98 Stat. 1837.

Abstract: GAO activities for the fiscal year ended September 30, 1985 were reported. Highlights of these activities were summarized and included work on: the budget deficit; the social security program; other entitlements and pension programs; Department of Defense entitlements; debt servicing; block grants; agricultural programs; tax administration; and financial management.

129097

Agent Orange: VA Needs To Further Improve Its Examination and Registry Program. HRD-86-7; B-208995. January 14, 1986.

Released February 14, 1986. 55 pp. plus 2 appendices (11 pp.). *Report* to Sen. Alan Cranston, Ranking Minority Member, Senate Committee on Veterans' Affairs; by Charles A. Bowsher, Comptroller General.

Issue Area: Health Delivery and Quality of Care: Other Issue Area Work (5291).

Contact: Human Resources Division.

Budget Function: Veterans Benefits and Services: Hospital and Medical Care for Veterans (703.0).

Organization Concerned: Veterans Administration.

Congressional Relevance: *House* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *House* Committee on Veterans' Affairs; *Senate* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *Senate* Committee on Veterans' Affairs; *Sen.* Alan Cranston.

Authority: Veterans' Health Care, Training and Small Business Loan Act of 1981 (P.L. 97-72).

Abstract: In response to a congressional request, GAO reviewed the Veterans Administration's (VA) Agent Orange examination program to determine: (1) how promptly VA examined veterans; (2) whether VA was formally notifying veterans of examination results; and (3) how reliable and complete the Agent Orange registry was.

Findings/Conclusions: GAO found that: (1) veterans scheduled for appointments in the summer of 1984 had to wait an average of no more than 30 days at five of the eight medical centers visited; (2) at two of the centers, which did not give examinations within 30 days, delays resulted from the demand created by publicity after the settlement of an Agent Orange lawsuit; (3) at the third center, delays resulted from publicity and a heavy work load; (4) some veterans who had serious health problems were not formally notified of their problems, as required; (5) six of the eight centers visited were sending letters to veterans after their examinations most of the time; (6) one center sent letters only to veterans who did not return to discuss their laboratory test results with the physician; (7) only two centers that sent letters explained both examination and laboratory test results; (8) the computerized registry that records veterans' symptoms is not reliable because only a restricted number of codes can be used to identify complaints; and (9) as of June 1985, about 47,600 of the over 199,400 examinations medical facilities reported had not been entered in the registry, limiting its usefulness.

Recommendation To Agencies: The Administrator of Veterans Affairs, through the Chief Medical Director, should specify in VA program guidance that, to the extent practical, facilities should give veterans Agent Orange examinations within 30 days of the request date. The Administrator of Veterans Affairs, through the Chief Medical Director, should require facilities to report the number of examinations pending for more than 30 days at the end of each month. The Administrator of Veterans Affairs, through the Chief Medical Director, should increase the monitoring of medical center compliance with the requirement to send complete and timely letters to veterans informing them of the results of their Agent Orange examinations, including laboratory tests, by such means as increasing the number of field visits made by central office staff. The Administrator of Veterans Affairs, through the Chief Medical Director, should revise instructions to medical centers regarding the collection of registry data. The instructions should allow coders to use the entire ICD-9-CM classification system to code veterans' complaints and require appropriate medical center officials to complete or review page one of the codesheet in the veteran's presence. The Administrator of Veterans Affairs, through the Chief Medical Director, should direct medical facilities to establish controls to ensure that all codesheets are submitted to the Agent Orange registry. The Administrator of Veterans Affairs, through the Chief Medical Director, should qualify all analyses of registry data by stating that the records of many veterans who received Agent Orange examinations are not included. The Administrator of Veterans Affairs, through the Chief Medical Director, should clarify whether a veteran must claim exposure to Agent Orange to be eligible for priority care under P.L. 97-72, and the relationship between the law and the Agent Orange examination program. The Administrator of Veterans Affairs, through the Chief Medical Director, should revise the instructions for reporting episodes of care provided under P.L. 97-72 to include a code for veterans unsure of their exposure and a description of how staff should determine whether an episode of care was for a condition possibly related to exposure.

129157

Resource Management: Information on the Coastal Zone Management Program. RCED-86-89FS; B-221960. February 13, 1986. 2 pp. plus 5 appendices (11 pp.). *Fact Sheet* to Rep. Walter B. Jones, Chairman, House Committee on Merchant Marine and Fisheries; by John H. Luke, Associate Director, Resources, Community, and Economic Development Division. Refer to CED-80-103, June 25, 1980, Accession Number 112643; and GGD-76-107, December 10, 1976, Accession Number 100233.

Issue Area: Food and Agriculture: Other Issue Area Work (6591).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Water Resources (301.0).

Organization Concerned: National Oceanic and Atmospheric Administration.

Congressional Relevance: *House* Committee on Merchant Marine and Fisheries; *Rep.* Walter B. Jones.

Authority: Coastal Zone Management Act of 1972 (16 U.S.C. 1451).

Abstract: Pursuant to a congressional request, GAO provided information on the National Oceanic and Atmospheric Administration's (NOAA) Coastal Zone Management Program, focusing on: (1) federal program objectives; (2) the status of state programs; (3) the results of previous program studies; (4) program benefits cited by state officials; and (5) concerns raised by federal and state program officials.

Findings/Conclusions: GAO found that, under the program, NOAA has provided about $291 million to participating states to promote the wise use and protection of coastal resources. Most eligible states have received federal approval for their program plans. GAO noted that: (1) past studies, including its own, have indicated the need for improvements in program management; (2) more recent studies have assessed whether federal funding for the program should continue and whether the program's results can be meaningfully evaluated; and (3) some state officials expressed concern about the degree of federal program control and direction.

129175

Acid Rain: Federal Research Into Effects on Waters and Forests. RCED-86-7; B-220896. December 17, 1985.

Released February 20, 1986. 53 pp. *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to RCED-85-13, December 11, 1984, Accession Number 125835; and RCED-87-89, April 29, 1987, Accession Number 133051.

Issue Area: Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency; Acid Precipitation Task Force.

Congressional Relevance: *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Rep.* John D. Dingell.

Authority: Acid Precipitation Act of 1980 (P.L. 96-294).

Abstract: In response to a congressional request, GAO: (1) discussed the status and future direction of the National Acid Precipitation Assessment Program's research to determine acid rain's effects on lakes, streams, and forests; and (2) provided information on funding the program's research effort.

Findings/Conclusions: GAO found that: (1) research directed at identifying the adverse effects of acid rain on lakes and streams included 81 projects at the end of fiscal year (FY) 1985; (2) initial task force analyses of research results indicate that certain lakes in the eastern states are acidic; (3) survey results on the condition of western lakes and eastern streams are not expected until late 1986; (4) a study of which eastern watersheds will protect waters from future acidification is due to be completed in December 1986; (5) estimates of fish population losses based on existing state agency data show that 400 to 500 Adirondack lakes can no longer sustain certain fish species; (6) the full extent of fish losses that can be attributed to acid deposition and the conditions under which such losses occur are not fully known; (7) a second phase of the water survey to determine the presence or absence of fish in acidic lakes will begin in the spring of 1986; (8) research directed at identifying the adverse effects of acid deposition on forests included 17 projects at the end of FY 1985; (9) it is estimated that the extent of forest decline and acid rain's role in forest change will not be known for 5 or more years; and (10) acid deposition research funding has increased from $29 million in FY 1984 to $65 million in FY 1985, and about 51 percent of this funding is slated for work on water and forest research.

129183

Hazardous Waste: Adequacy of EPA Attorney Resource Levels. RCED-86-81FS; B-221693. January 31, 1986.

Released March 3, 1986. 2 pp. plus 6 appendices (16 pp.). *Fact Sheet* to Sen. Edwin (Jake) Garn, Chairman, Senate Committee on Appropriations: HUD-Independent Agencies Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division.

Issue Area: Environment: Assessing EPA's Cleanup of the Worst Abandoned Hazardous Waste Sites (6803).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *Senate* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *Sen.* Edwin (Jake) Garn.

Authority: Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Resource Conservation and Recovery Act of 1976. Solid and Hazardous Waste Amendments of 1984. Freedom of Information Act. Clean Air Act. Clean Water Act of 1977.

Abstract: Pursuant to a congressional request, GAO reviewed whether or not the Environmental Protection Agency (EPA) has an adequate supply of regional attorney resources to: (1) enforce Superfund and Resource Conservation and Recovery Act (RCRA) requirements; and (2) defend EPA against lawsuits under these acts.

Findings/Conclusions: GAO noted that: (1) EPA received 680 full-time personnel positions, which included attorneys and support staff, to perform legal and compliance activities under all of its environmental statutes, including Superfund and RCRA; (2) regional counsels are understaffed in the Superfund and RCRA areas because of an imbalance between the level of RCRA and Superfund program activities and legal staffing; and (3) attorney shortages are extensive for RCRA activities, because regional counsels have not kept pace with increased work loads resulting from new statutory requirements. GAO found that: (1) four regional counsels have eliminated or reduced their involvement in certain legal activities associated with Superfund and RCRA enforcement; (2) attorneys lacked time to review work plans for the Superfund site investigation and feasibility study; (3) five regional counsels experienced delays in processing administrative orders; and (4) at least five regional counsels had attorneys working substantial amounts of overtime. GAO also found that: (1) enforcement cases are expected to increase 27 percent in fiscal year 1986; (2) some EPA regional offices tried to compensate for attorney shortages by allocating positions from program units to the regional counsels; and (3) three of the eight regional counsels have made an effort to quantify the extent of their attorney resource needs by using work-load projections and pricing factors to estimate the time required to perform each activity.

129209

Pipeline Safety: Information on Gas Distribution System Operators Reporting Unaccounted for Gas. RCED-86-87BR; B-214352. February 25, 1986.

Released March 4, 1986. 20 pp. *Briefing Report* to Rep. Philip R. Sharp, Chairman, House Committee on Energy and Commerce: Fossil and Synthetic Fuels Subcommittee; by James M. Blume, (for Herbert R. McLure, Associate Director), Resources, Community, and Economic Development Division.

Issue Area: Transportation: Other Issue Area Work (6691).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Transportation: Other Transportation (407.0).

Organization Concerned: Department of Transportation: Research and Special Programs Administration: Office of Pipeline Safety.

Congressional Relevance: *House* Committee on Energy and Commerce: Fossil and Synthetic Fuels Subcommittee; *Rep.* Philip R. Sharp.

Authority: Natural Gas Pipeline Safety Act of 1968 (49 U.S.C. 1671). Hazardous Liquid Pipeline Safety Act of 1979 (49 U.S.C. 2001). 49 C.F.R. 195. P.L. 98-464.

Abstract: In response to a congressional request, GAO prepared a briefing report on: (1) the number of municipal gas distribution systems reporting high levels of unaccounted-for gas and whether these high levels represented severe gas pipeline leaks or presented a safety problem; and (2) the Department of Transportation's (DOT) authority to regulate liquid commodities that are not currently being regulated, such as methanol and carbon dioxide.

Findings/Conclusions: GAO found several causes for unaccounted-for gas, including: (1) gas pipeline breaks and leaks; (2) broken and defective gas meters; (3) errors in meter reading and bookkeeping; (4) stolen gas; and (5) unmetered gas used in a city or operator facility. Federal and industry officials consider unaccounted-for gas in excess of 15 percent of gas purchases to be high and worthy of investigation. GAO found that, of the 1,491 gas distribution system operators: (1) the federal government is responsible for inspection of 166, with the states assuming inspection responsibilities for the rest; (2) 92 reported 15 percent or more unaccounted-for gas in 1984, of which 64 were municipal operations; (3) none of the 92 operators reporting a high percentage of unaccounted-for gas reported any accidents for 1984; (5) 369 reported between 5 and 15 percent of unaccounted-for gas, of which 243 were municipal operations; and (6) operators reported a total of 109 accidents involving either death, injury, or property damage in 1984. GAO also found that DOT has the authority to regulate any liquid deemed hazardous when transported by pipeline, such as petroleum and petroleum products, anhydrous ammonia, methanol, and carbon dioxide.

129260

Resource Protection: Mississippi Valley Canada Geese: Flyway Management Obstacles. RCED-86-31; B-221640. February 5, 1986. 53 pp. plus 1 appendix (25 pp.). *Report* to Rep. Ed Jones; Sen. Jim Sasser; Sen. Albert Gore, Jr.; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division.

Issue Area: Natural Resources Management: Effectiveness of Natural Resources Protection Programs and Their Effect on the Balance Between Land Development and Conservation Interests (6905).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Conservation and Land Management (302.0).

Organization Concerned: United States Fish and Wildlife Service; Mississippi Flyway Council.

Congressional Relevance: *House* Committee on Appropriations: Interior Subcommittee; *House* Committee on Merchant Marine and Fisheries: Fisheries, Wildlife Conservation and the Environment Subcommittee; *Senate* Committee on Appropriations: Interior Subcommittee; *Senate* Committee on Environment and Public Works; *Rep.* Ed Jones; *Sen.* Albert Gore, Jr.; *Sen.* Jim Sasser.

Authority: Migratory Bird Treaty Act (16 U.S.C. 703 et seq.).

Abstract: In response to congressional requests, GAO reviewed the Fish and Wildlife Service's (FWS) hunting regulations and cooperative management program for the Mississippi Valley Population of Canada geese (MVP), specifically the: (1) level of cooperation between the states in the Mississippi Flyway Council and FWS; (2) progress made in reaching the program's goal to increase MVP size; and (3) concern that hunters in the Council's southern states were not receiving an equitable share of the geese relative to the northern states.

Findings/Conclusions: FWS promulgates regulations each year limiting the number of waterfowl hunters can shoot and works with the Council to establish hunting regulations. The MVP improvement program: (1) restricts the harvesting of Canada geese to allow the flock to grow by 15 percent each year; (2) closed to hunting the area south of the 36th parallel; (3) sets harvest objectives for specific areas within states; and (4) relies on each state to apply the necessary harvest control methods, such as monitoring and season closure, to meet the agreed-upon limits. GAO found that: (1) since 1979, overall MVP harvest objectives have been exceeded by 295,000 geese, resulting in an MVP decline of 118,000; (2) overharvests persisted despite FWS and Council steps to shorten the hunting season and identify harvest objectives for specific areas; (3) FWS has been reluctant to take stronger regulatory action to ensure that the states adhere to their objectives because of the program's cooperative nature; (4) although the states have cooperated in feeding and refuge restrictions in order to increase southern migration, they have been less unified over harvest control and have not accepted the increasingly restrictive regulations limiting state harvests; and (5) state officials seem willing to reexamine harvest objectives if the planned annual goose population growth rate could be reduced below 15 percent, giving them more time to reach the program's goals and allowing them to increase annual harvest objectives.

Recommendation To Agencies: If the states' harvest control plans for the 1985 to 1986 MVP Canada goose hunting season prove ineffective, the Director, FWS, should include, starting in the 1986 to 1987 hunting regulations, such restrictions as: (1) specifying each state's MVP harvest objective; (2) expanding special hunting (quota and tag) zones to monitor MVP harvest rates; and (3) requiring states to close hunting seasons early if their MVP harvest objective is approached. Because of the importance of state and federal cooperation to achieve waterfowl management goals, the Director, FWS, should work with the Mississippi Flyway Council to reach agreement on a revised growth rate for achieving overall population and southern distribution goals of the MVP Canada goose program.

129261

Quarterly Report on DOE's Nuclear Waste Program as of December 31, 1985. RCED-86-86; B-202377. January 31, 1986. 41 pp. plus 6 appendices (7 pp.). *Report* to Sen. James A. McClure, Chairman, Senate Committee on Energy and Natural Resources; Sen. J. Bennett Johnston, Ranking Minority Member, Senate Committee on Energy and Natural Resources; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to RCED-86-42, October 30, 1985, Accession Number 128514; RCED-85-100, September 30, 1985, Accession Number 128021; RCED-85-156, July 31, 1985, Accession Number 127746; RCED-85-116, April

30, 1985, Accession Number 126921; RCED-85-65, January 31, 1985, Accession Number 126199; RCED-85-27, January 10, 1985, Accession Number 125996; RCED-85-42, October 19, 1984, Accession Number 125544; RCED-86-154FS, April 30, 1986, Accession Number 129833; RCED-87-48FS, November 5, 1986, Accession Number 131594; RCED-87-17, April 15, 1987, Accession Number 132701; and RCED-87-95FS, February 19, 1987, Accession Number 132206.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404).
Contact: Resources, Community, and Economic Development Division.
Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).
Organization Concerned: Department of Energy: Office of Civilian Radioactive Waste Management.
Congressional Relevance: *Senate* Committee on Energy and Natural Resources; *Sen.* J. Bennett Johnston; *Sen.* James A. McClure.
Authority: Nuclear Waste Policy Act of 1982 (P.L. 97-425).
Abstract: Pursuant to a congressional request, GAO provided its annual report on the status of the Nuclear Waste Fund and the Department of Energy's (DOE) implementation of the Nuclear Waste Policy Act. Under the act, the DOE Office of Civilian Radioactive Waste Management (OCRWM) is responsible for: (1) conducting detailed site characterization studies at potential nuclear waste repository sites; (2) designing and constructing the first repository; and (3) consulting and cooperating with states and Indian tribes in implementing the program.
Findings/Conclusions: GAO found that: (1) OCRWM has made progress toward meeting the act's requirements but continues to lag behind legislative and DOE-imposed deadlines for activities relating to the selection of the first repository; (2) OCRWM expects to complete environmental assessments of the first candidate sites in April 1986; (3) DOE issued a draft proposal for a monitored retrievable storage (MRS) facility; and (4) in January 1986, DOE issued a draft Area Recommendation Report, which narrowed the number of rock formations under consideration for the second repository site. GAO also found that: (1) in April 1985, the President advised DOE that, as a cost-saving measure, it should deposit defense high-level radioactive waste in the repositories that it is designing for commercial waste; (2) during the final quarter of 1985, Tennessee sued DOE, contending that it violated the act by not consulting with the state before preparing the draft MRS proposal; (3) during the final quarter of 1985, two decisions on previously filed suits were handed down against DOE, but DOE has not yet assessed how the decisions will affect the waste program; (4) DOE issued a Program Management System Manual to better enable managers to plan and direct the waste program; and (5) DOE continued its efforts to inform states, Indian tribes, and other concerned parties about its waste program activities. In addition, GAO found that the Nuclear Waste Fund balance as of December 31, 1985, was about $1.6 billion.

129286

Chemical Data: EPA's Data Collection Practices and Procedures on Chemicals. RCED-86-63; B-203051. February 10, 1986.
Released March 12, 1986. 6 pp. plus 5 appendices (31 pp.). *Report* to Rep. Henry A. Waxman, Chairman, House Committee on Energy and Commerce: Health and the Environment Subcommittee; Rep. James J. Florio, Chairman, House Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to RCED-86-47FS, December 4, 1985, Accession Number 128618; RCED-85-75, March 26, 1985, Accession Number 126837; RCED-85-2, February 22, 1985, Accession Number 126618; and RCED-85-166, September 5, 1985, Accession Number 128069.

Issue Area: Environment: Other Issue Area Work (6891).
Contact: Resources, Community, and Economic Development Division.
Budget Function: Natural Resources and Environment: Other Natural Resources (306.0).
Organization Concerned: Environmental Protection Agency.
Congressional Relevance: *House* Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; *House* Committee on Energy and Commerce: Health and the Environment Subcommittee; *Rep.* James J. Florio; *Rep.* Henry A. Waxman.
Authority: Clean Air Act (42 U.S.C. 7401 et seq.). Toxic Substances Control Act (15 U.S.C. 2601 et seq.). Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et seq.). Resource Conservation and Recovery Act of 1976 (42 U.S.C. 6901 et seq.). Paperwork Reduction Act of 1980. Clean Water Act of 1977.
Abstract: Pursuant to a congressional request, GAO reviewed the Environmental Protection Agency's (EPA) data collection procedures and practices for toxic emissions and hazardous substances, specifically: (1) the types of data that EPA collects to support its regulatory decisions; and (2) EPA verification efforts to ensure the accuracy and reliability of the data it collects.
Findings/Conclusions: GAO found that: (1) EPA makes decisions on the extent to which data are collected on an individual chemical or substance basis and, to a large degree, bases decisions on the judgment of its staff; (2) although EPA has broad authority to obtain data it deems necessary to help identify and regulate chemicals manufactured in the United States, it generally does not attempt to obtain data on every individual hazardous substance; (3) to a large extent, EPA relies on available sources, such as published literature and state files, to provide the data it needs; (4) EPA only verifies data to a limited extent to ensure that it is accurate; (5) EPA focuses its efforts on those chemicals for which it has the greatest need for current information and those under regulation or being considered for regulation; and (6) the extent of EPA verification efforts varies depending on where data are obtained and for what purposes. GAO also found that: (1) EPA does not verify data obtained from literature searches and other available sources because it believes that the sources are reliable and accurate enough to identify and screen substances for assessment; (2) once substances are identified as potentially hazardous, EPA reviews the data for reasonableness and completeness; and (3) EPA may also conduct a limited number of on-site emission tests to obtain additional data, but these tests depend on the tradeoffs between costs and benefits.

129344

Environment, Safety, and Health: Status of Department of Energy's Implementation of 1985 Initiatives. RCED-86-68FS; B-222195. March 4, 1986. 12 pp. *Fact Sheet* to Sen. John H. Glenn, Ranking Minority Member, Senate Committee on Governmental Affairs: Energy, Nuclear Proliferation and Government Processes Subcommittee; by Keith O. Fultz,

Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-86-192, September 8, 1986, Accession Number 131121.

Issue Area: Energy: Other Issue Area Work (6491).
Contact: Resources, Community, and Economic Development Division.
Budget Function: Energy: Energy Supply (271.0).
Organization Concerned: Department of Energy.
Congressional Relevance: *Senate* Committee on Governmental Affairs: Energy, Nuclear Proliferation and Government Processes Subcommittee; *Sen.* John H. Glenn.
Authority: DOE Order 5480.1. DOE Order 5481.1B. DOE Order 5482.1B. DOE Order 5700.6B.
Abstract: Pursuant to a congressional request, GAO reviewed the Department of Energy's (DOE) effectiveness in protecting worker health and safety and the surrounding environment at its nuclear facilities.
Findings/Conclusions: GAO monitored the implementation of several initiatives to strengthen DOE environmental, safety, and health (ES&H) programs and found that DOE has focused its attention on: (1) reorganizing the headquarters ES&H function; (2) revising departmentwide orders that will provide additional authority in ES&H matters; and (3) developing preliminary plans outlining the scope, methodology, and tentative schedules for environmental and technical safety survey appraisals. GAO also found that: (1) the Secretary of Energy has approved the revised ES&H organizational structure; (2) 118 out of 128 ES&H staff positions have been filled; (3) 6 draft ES&H orders for DOE-wide coordination and review have been approved; (4) 41 environmental surveys and 51 technical safety appraisals will be conducted at DOE nuclear and nonnuclear sites; (5) DOE is planning to develop an information system that it can use to monitor ES&H problems at its facilities; and (6) DOE is providing its program and field offices with additional and clearer environmental guidance to meet its regulatory deadlines.

129359

Hazardous Waste: Environmental Safeguards Jeopardized When Facilities Cease Operating. RCED-86-77; B-219849. February 11, 1986. Released March 19, 1986. 59 pp. plus 2 appendices (3 pp.). *Report* to Rep. James J. Florio, Chairman, House Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to T-RCED-88-10, December 9, 1987, Accession Number 134601.

Issue Area: Environment: Assessing EPA's Initial Efforts To Address Problems Posed by Past Hazardous Waste Disposal Practices (6801).
Contact: Resources, Community, and Economic Development Division.
Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).
Organization Concerned: Environmental Protection Agency.
Congressional Relevance: *House* Committee on Government Operations; *House* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *House* Committee on Energy and Commerce: Transportation and Hazardous Materials Subcommittee; *Senate* Committee on Environment and Public Works: Hazardous Waste and Toxic Substances Subcommittee; *Senate* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *Rep.* James J. Florio.
Authority: Resource Conservation and Recovery Act of 1976. Solid and Hazardous Waste Amendments of 1984. Bankruptcy Reform Act. Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Cong. Rec. [124] H33995. In re Kovacs, 103 S. Ct. 810 (1983). Ohio v. Kovacs, 105 S. Ct. 705 (1985). In re Thomas Solvent Co., 44 Bankr. 83 (W.D. Mich. 1984). Penn Terra Ltd. v. Department of Environmental Resources, 733 F.2d 267 (3rd Cir. 1984). Matter of Quanta Resources Corp., 739 F.2d 912 (3rd Cir. 1984). In re Quanta Resources Corp., 739 F.2d 927 (3rd Cir. 1984). Midatlantic National Bank v. New Jersey Department of Environmental Protection, 54 U.S.L.W. 4138 (1986).
Abstract: Pursuant to a congressional request, GAO determined the extent to which: (1) owners and operators of hazardous waste facilities have declared bankruptcy and thereby avoided paying closure and post-closure costs for their facilities; (2) financial assistance requirements ensure that sufficient funds will be available to close and provide post-closure care at such facilities; (3) facilities that cease operations are inspected for compliance with closure requirements; and (4) the Environmental Protection Agency (EPA) and states are taking enforcement action for violations of those requirements.
Findings/Conclusions: GAO found that: (1) according to state and territorial officials, 74 hazardous waste facilities have filed for bankruptcy; (2) while bankruptcy law provides for the enforcement of environmental regulations over creditor claims, various courts have given EPA and state environmental interests equal status with other unsecured creditors, thereby hindering efforts to force responsible parties to properly close their facilities; (3) in cases it reviewed, courts restricted EPA or state efforts to obtain proper closures in three cases; (4) it could not assess the adequacy of new EPA and state financial assurance requirements that are designed to ensure that hazardous waste firms are strong enough to pay closure and post-closure costs; and (5) it is difficult for states to assess the financial condition of interstate hazardous waste facility operators. GAO also found that: (1) about 37 percent of the facilities that EPA inspected either during or after closure violated EPA regulations; (2) only 46 percent of the operators in states it reviewed had submitted financial assurance documents; (3) 34 percent of the financial assurance statements submitted were deficient; and (4) in many cases, EPA did not take adequate enforcement actions against operators committing financial assurance or closure violations.
Recommendation To Agencies: The Administrator, EPA, should monitor and periodically reevaluate hazardous waste facility closures and the implementation of corrective action activities to ensure that the trust fund and the financial test are providing adequate assurance that funds will be available. The Administrator, EPA, should develop and implement a system for providing a centralized review of all multi-state financial tests. The Administrator, EPA, should direct EPA regional offices to ensure that all state grant or enforcement agreements include a requirement for states to issue compliance orders for all violations of financial assistance requirements as initial enforcement actions and closely oversee state implementation of this requirement. With the current emphasis on reducing government spending, it may be difficult to obtain the additional staff or funds needed to monitor the effectiveness of the trust fund and financial test and to develop a centralized system to review multi-state financial tests. If, however, resources are not available because of higher priority requirements, EPA should determine the additional needs of the program and provide such information to the appropriate congressional committees for their consideration.

129435

Public Lands: Interior Should Ensure Against Abuses From Hardrock Mining. RCED-86-48; B-222092. March 27, 1986. 33 pp. plus 2 appendices (17 pp.). *Report* to Donald P. Hodel, Secretary, Department of the Interior; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to RCED-86-217, September 10, 1986, Accession Number 130940; and RCED-88-21, October 21, 1987, Accession Number 134430.

Issue Area: Natural Resources Management: Interior's Federal Coal and Other Onshore Minerals Programs (6909).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Conservation and Land Management (302.0).

Organization Concerned: Department of the Interior; Bureau of Land Management.

Congressional Relevance: *House* Committee on Appropriations: Interior Subcommittee; *House* Committee on Interior and Insular Affairs; . *Senate* Committee on Appropriations: Interior Subcommittee; *Senate* Committee on Energy and Natural Resources.

Authority: Mining Resources Act (30 U.S.C. 22 et seq.). Mineral Lands Leasing Act (30 U.S.C. 181 et seq.). Land Policy and Management Act (43 U.S.C. 1701 et seq.).

Abstract: GAO evaluated how the Bureau of Land Management (BLM) carries out its mining claim recording and environmental protection responsibilities under the Federal Land Policy and Management Act, focusing on BLM procedures for ensuring that: (1) it gets enough information to determine the location and validity of mining claims on federal lands; and (2) mined lands are adequately reclaimed once mining activity ends. GAO conducted its work at 10 BLM offices in western states, where most of the mining activity within BLM jurisdiction occurs.

Findings/Conclusions: GAO found that: (1) while all 10 BLM offices review claims to ensure that claim holders have provided adequate location information, not all of the offices check to ensure that claims include a map or geographic reference; (2) some BLM officials believe that a map or geographic reference is necessary to adequately establish a claim's location; and (3) in cases where BLM does not adequately check location information, it may be unable to obtain further information from claim holders, if necessary. GAO also found that: (1) BLM failed to inspect more than half of the mining sites that began operations in 1981 to determine whether they had been adequately reclaimed; (2) of the sites BLM inspected, 39 percent had not been reclaimed at the time of inspection; (3) there were a number of sites in the 10 states which showed varying degrees of environmental damage, including deep trenches, open pits, and improperly disposed waste; and (4) while BLM can require mine operators to post bonds to cover the costs of reclamation, it only does so for operators with a record of noncompliance.

Recommendation To Agencies: The Secretary of the Interior should require the Director, BLM, to establish a uniform policy to review mining claim location information when the claims are recorded with BLM to ensure that the location information provided contains sufficiently detailed descriptions to enable land managers to find the location of claimed federal lands. The Secretary of the Interior should require the Director, BLM, to establish a uniform policy to review mining claim location information when the claims are recorded with BLM to ensure that only those mining claims located on lands open to mineral exploration and development are recorded with BLM. Mining claims located on federal lands after the lands were withdrawn should be formally declared invalid by BLM. To help ensure that federal lands damaged by mining operations conducted under the Mining Law of 1872 are reclaimed, the Secretary of the Interior should: (1) base his decision on whether to require a reclamation bond on the significance of land disturbance likely to result from the mining operation; and (2) require mine operators to post a bond in an amount large enough to cover the estimated costs of reclamation if their operations could cause significant land disturbance. To enable BLM to better monitor the status of mining operations and operators' compliance with reclamation requirements, the Secretary of the Interior should amend the surface management regulations to require operators to furnish, as part of their notices of intent or plans of operations, the anticipated completion dates of their mining operations.

129445

Nuclear Winter: Uncertainties Surround the Long-Term Effects of Nuclear War. NSIAD-86-62; B-222034. March 27, 1986. 43 pp. plus 6 appendices (10 pp.). *Report* to Congress; by Charles A. Bowsher, Comptroller General.

Issue Area: Security and International Relations: Adequacy of U.S. Efforts To Control International Transfer of Conventional Weapons and Nuclear Technology (6103).

Contact: National Security and International Affairs Division.

Budget Function: National Defense: Atomic Energy Defense Activities (053.0).

Organization Concerned: Department of Defense.

Congressional Relevance: Congress.

Authority: Department of Defense Authorization Act, 1986. Foreign Relations Authorization Act, Fiscal Year 1986. Foreign Relations Authorization Act, Fiscal Year 1987. Treaty on the Non-Proliferation of Nuclear Weapons, Jul. 1, 1968, Multilateral, 21 U.S.T. 483, T.I.A.S. No. 6839. Agreement on Measures to Improve the Direct Communications Link with Annex, September 30, 1971, United States-Union of Soviet Socialist Republics, 22 U.S.T. 1598, T.I.A.S. No. 7187 . Agreement on Measures to Reduce the Risk of Outbreak of Nuclear War, September 30, 1971, United States-Union of Soviet Socialist Republics, 22 U.S.T. 1590, T.I.A.S. No. 7186 . Agreement on the Prevention of Nuclear War, June 22, 1973, United States-Union of Soviet Socialist Republics, 24 U.S.T. 1478, T.I.A.S. No. 7654 . Memorandum of Understanding Regarding the Establishment of a Direct Communications ("Hot-Line") Link with Annex, June 20, 1963, United States-Union of Soviet Socialist Republics, 14 U.S.T. 825, T.I.A.S. No. 5362 .

Abstract: GAO reported on the scientific and policy implications of nuclear winter after an extensive review of relevant literature and discussions with scientists, researchers, and policy analysts to provide Congress with: (1) an overview of the science of nuclear winter; (2) pertinent information for considering policy implications; and (3) the status of U.S. research.

Findings/Conclusions: Nuclear winter is the term used to describe the potential long-term climatic and environmental effects of nuclear war caused by the injection of soot, smoke, and dust into the atmosphere and the associated dramatic reduction of surface temperatures. GAO noted that a 1984 Department of Defense study assessing the nuclear winter theory: (1) stressed the many uncertainties in the theory's assumptions; (2) found the theory plausible and recommended further research; (3) could not quantify the

potential long-term consequences; and (4) asserted that nuclear war analyses should consider nuclear winter implications. Current research has identified nuclear winter as a plausible theory with numerous uncertainties in critical areas such as war scenarios, fire research, and climate modeling. GAO found that: (1) war scenarios will remain uncertain because of the uncertainty of critical warfighting variables such as targets, warheads, weapons, and weather conditions; (2) present research has produced little information on a nuclear war's fire and smoke effects on sunlight; and (3) computer models have limited accuracy in representing physical laws of nature and the atmospheric disturbances integral to war. The administration's new Interagency Research Program ties together ongoing efforts at various government laboratories; however, although future funding and research are contemplated, the formal plan does not contain the necessary interagency controls. Because of a lack of consensus regarding defense policy implications, further analysis in this area should be fostered.

129463

Status of Superfund Management Information Systems. RCED-86-98FS; B-211463. February 28, 1986.

Released April 1, 1986. 14 pp. *Fact Sheet* to Rep. James J. Florio, Chairman, House Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-85-3, December 28, 1984, Accession Number 125938.

Issue Area: Environment: Assessing EPA's Cleanup of the Worst Abandoned Hazardous Waste Sites (6803).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; *Rep.* James J. Florio.

Authority: Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

Abstract: Pursuant to a congressional request, GAO reviewed the status of the Environmental Protection Agency's (EPA) efforts to improve its management information systems for the Superfund enforcement and remedial programs. Findings/Conclusions: GAO noted that: (1) the tracking component of the Superfund system is not widely used because of slow and difficult data entry and retrieval and difficulties in modifying standard output records for specific regional needs; and (2) regional personnel do not input data as required and, as a result, the information contained in the Superfund system is often unreliable. GAO found that: (1) EPA is in the initial stages of an effort to develop a comprehensive management information system for all Superfund programs; (2) EPA has instituted a new manual system for tracking compliance with consent decrees; (3) as of February 1986, EPA had not developed a formal policy for collecting and reporting information on state enforcement activities, but it had taken action to require regional offices to report state enforcement information; and (4) EPA has implemented a national, automated management information system to track remedial actions. GAO also found that: (1) EPA has developed an integrated reporting system that generates reports on the status of all Superfund activities at individual waste sites by drawing information from other management information systems; (2) the Information Management Task Group has proposed a comprehensive data base which would be accessible to headquarters and regional offices and would be used for program evaluation, planning, and management information; and (3) EPA has initiated a pilot project to develop an automated site management process which would identify critical milestones.

129473

The Superfund Videotape: Broadcasting to the Congress. 1986. 2 pp. by Timothy P. Bowling, Senior Evaluator, Resources, Community, and Economic Development Division, Jeffrey E. Heil, Senior Evaluator, Resources, Community, and Economic Development Division. In The GAO Review, Vol. 21, Issue 1, Winter 1986, pp. 30-31. Refer to RCED-85-69, March 29, 1985, Accession Number 126612.

Contact: Resources, Community, and Economic Development Division.

Organization Concerned: Environmental Protection Agency.

Authority: Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

Abstract: This article discusses the use of audiovisual aids to broadcast information involving ways to improve Superfund hazardous waste cleanup efforts. GAO was concerned that its views on the reauthorization of Superfund might only reach legislative and oversight congressional committees; therefore, it sought additional ways to communicate its message to all members of Congress as they began floor debates on Superfund reauthorization.

129584

Offshore Oil and Gas: Inspection of Outer Continental Shelf Facilities. RCED-86-5; B-220739. December 31, 1985.

Released April 9, 1986. 41 pp. plus 1 appendix (2 pp.). *Report* to Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division.

Issue Area: Natural Resources Management: Interior's Effectiveness in Managing Mineral Resources, Including Ensuring Fair Prices for Minerals Sold and Providing an Adequate Mineral Supply (6901).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Supply (271.0).

Organization Concerned: Department of the Interior: Minerals Management Service; United States Coast Guard.

Congressional Relevance: *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Rep.* Michael L. Synar; *Rep.* John D. Dingell.

Authority: Outer Continental Oil Shelf Lands Act (67 Stat. 462). Water Pollution Control Act Amendments of 1972 (Federal). Rivers and Harbors Act. Ports and Waterways Safety Act of 1972. Occupational Safety and Health Act of 1970. Natural Gas Pipeline Safety Act of 1968. Longshoremen's and Harbor Workers' Compensation Act (33 U.S.C. 901 et seq.). Outer Continental Shelf Lands Act Amendments of 1978.

Abstract: In response to congressional requests, GAO obtained information on: (1) the scope of the Minerals Management Service's (MMS) and the Coast Guard's inspection responsibilities for offshore oil and gas activities; (2) the

nature and timeliness of the government's offshore safety and environmental inspections; and (3) the extent and timeliness of follow-up efforts.

Findings/Conclusions: GAO found that: (1) both agencies are required to perform annual scheduled and periodic unannounced inspections of all offshore facilities subject to safety and environmental regulations; (2) during fiscal year (FY) 1983, MMS inspected 94 percent of the offshore drilling sites and 96 percent of the offshore production facilities; (3) only the Pacific MMS region routinely conducted periodic unannounced inspections; (4) the Gulf of Mexico region cited about 3 times the number of violations per production inspection as the Pacific region and 10 times more drilling violations per inspection; (5) differences in the frequency of inspections among the regions were due to differences in the relative workloads, resources, and public opinion; (6) MMS has recently improved its inspection program; (7) MMS shut down more facilities in the Gulf region than in the Pacific region because the equipment had been in service longer and failed more often; (8) in FY 1983, the Coast Guard inspected 69 percent of the production facilities and 96 percent of the mobile offshore drilling units, citing approximately one violation per production inspection and three violations per drilling inspection; (9) the Coast Guard did not have enough resources in the Gulf to inspect all facilities; (10) both MMS and the Coast Guard relied on operators' notifications that violations had been corrected; and (11) although MMS instituted 54 civil penalty cases which resulted in about $1.1 million in fines from 1980 through December 1982, it has not assessed any civil penalties since 1983.

129585

Air Pollution: EPA's Efforts To Reduce and End the Use of Lead in Gasoline. RCED-86-80FS; B-222019. March 12, 1986.

Released April 11, 1986. 6 pp. *Fact Sheet* to Rep. Jim Slattery; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-86-182, August 6, 1986, Accession Number 131105.

Issue Area: Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *Rep.* Jim Slattery.

Authority: Clean Air Act. Food Security Act (P.L. 99-198).

Abstract: In response to a congressional request, GAO prepared a fact sheet on the Environmental Protection Agency's (EPA) efforts to substantially reduce and possibly end the use of lead in gasoline and the extent to which EPA considered the impact on agricultural machinery using low-lead gasoline.

Findings/Conclusions: GAO found that: (1) in March 1985, EPA issued final rules to reduce the allowable amount of lead in gasoline to 0.10 grams per leaded gallon, concluding from the results of three motor vehicle studies that engines designed to operate with leaded gasoline needed between 0.04 and 0.07 grams of lead per gallon to prevent damage; and (2) EPA relied on data that the Army and Postal Service generated when they switched large fleets of vehicles from leaded to unleaded gasoline with no significant problems. In response to congressional concerns and those of the Department of Agriculture and the farm community about the impacts that the low-lead standard and the possible ban of leaded gasoline might have on farm equipment, EPA agreed to study farm equipment engines and to reevaluate the standards; and (4) by January 1987, EPA expects to determine whether its low-lead standards need to be changed to prevent adverse effects on farm machinery and what the final action should be on its proposal to ban lead.

129587

Imported Wines: Identifying and Removing Wines Contaminated With Diethylene Glycol. RCED-86-112; B-222128. March 4, 1986.

Released April 11, 1986. 15 pp. plus 1 appendix (2 pp.). *Report* to Rep. Frank Horton; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to Testimony, May 28, 1986, Accession Number 129938; and RCED-86-214FS, August 29, 1986, Accession Number 131182.

Issue Area: Environment: Evaluation of the Federal Pesticide Regulatory Process' Capability To Protect Public Health and the Environment From Unreasonable Risks (6806); Food and Agriculture: Effectiveness of U.S. Food/Agriculture Products in Satisfying Safety, Quality, and Dietary Needs (6508).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Bureau of Alcohol, Tobacco and Firearms; Food and Drug Administration; Department of the Treasury.

Congressional Relevance: *House* Committee on Government Operations; *House* Committee on Appropriations: Treasury-Postal Service and General Government Subcommittee; *House* Committee on Energy and Commerce; *Senate* Committee on Governmental Affairs; *Senate* Committee on Appropriations: Treasury, Postal Service, and General Government Subcommittee; *Senate* Committee on Environment and Public Works; *Rep.* Frank Horton.

Authority: Food, Drug and Cosmetic Act. Alcohol Administration Act. Internal Revenue Code (IRC). Brown-Forman Distillers Corp. v. Mathews, 435 F. Supp. 5 (W.D. Ky. 1976).

Abstract: In response to a congressional request, GAO reviewed federal agency actions in dealing with the contamination of imported wines with the industrial chemical diethylene glycol (DEG), particularly with Austrian wines where the contamination was more significant.

Findings/Conclusions: GAO found that both the Food and Drug Administration (FDA) and the Bureau of Alcohol, Tobacco and Firearms (BATF) may regulate and prohibit the marketing of contaminated or mislabeled imported wines; however, neither BATF nor FDA routinely test imported wines for the presence of toxic substances or contaminates. In an effort to have all Austrian wines currently being marketed in the United States tested for DEG, BATF required that importers and wholesalers have samples of all Austrian wines under their control tested in private laboratories, but the success of the testing is unknown since BATF did not identify which importers and wholesalers sold and distributed Austrian wines, or which Austrian wines were currently being marketed in the United States. BATF tests of wines from 70 countries indicated that DEG was only found in Austrian, West German, and Italian wines and in varying amounts. However, unlike the Austrian wines, BATF did not stop the German and Italian wines at entry ports or properly test them for DEG. Although BATF is authorized to halt any sales of wines containing DEG, it relied on importers and wholesalers to remove contaminated wines from the market,

but it did not verify that the wines were removed or require reports on removal actions. In addition, it did not seek an FDA assessment to determine what amount of DEG would represent a significant health risk. GAO believes that the government needs to provide an appropriate degree of assurance that wines with DEG in amounts representing a risk will be identified and removed from the market.

Recommendation To Agencies: The Secretary of the Treasury should direct the Director, BATF, to: (1) consult with the Commissioner, FDA, to determine whether the actions taken by BATF in sampling, testing, and having wines contaminated with the industrial chemical DEG removed from the marketplace were adequate to protect public health and safety and take whatever action is warranted as a result of these consultations; and (2) use the results of such consultations to develop appropriate policies and procedures for working with FDA regarding any future contamination of alcoholic beverages. The Director, BATF, should report to the appropriate oversight committees, as well as to the House Committee on Government Operations, on the results of these consultations and any actions taken.

129588

Review of Selected Air Force Hazardous Waste Reports. NSIAD-86-68BR; B-213706. March 31, 1986.

Released April 10, 1986. 2 pp. plus 4 appendices (9 pp.). *Briefing Report* to Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by Harry R. Finley, Senior Associate Director, National Security and International Affairs Division.

Issue Area: Environment: Other Issue Area Work (6891); Air Force: Other Issue Area Work (5491).

Contact: National Security and International Affairs Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0); National Defense: Department of Defense - Military (Except Procurement and Contracting) (051.0).

Organization Concerned: Department of the Air Force.

Congressional Relevance: *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *Rep.* Michael L. Synar.

Abstract: Pursuant to a congressional request, GAO reviewed 30 contractor-developed Installation Restoration Program Phase I reports, which identify areas of potential environmental contamination due to hazardous waste disposal at Air Force installations, and compared them to the procedures outlined in the Air Force's guidance manual.

Findings/Conclusions: GAO found that the contractors used the required procedures to determine whether the potential for contamination at a disposal site warranted recommending the site for further work. Each site was given a Hazard Assessment Rating Methodology score that provided the Air Force with a relative indication of the potential for contamination over a wide range of sites and conditions; however, the scores for the sites recommended for further action were inconsistent. The Air Force stated that: (1) many of the contractors had been conservative in assigning scores; and (2) while the method for computing a score primarily uses objective factors, the contractors have to make some subjective evaluations. As a result, the Air Force reviewed the contractors' recommendations and decided to include more sites for further action than were recommended. An Air Force status report indicated that work has begun at 10 of the sites and, after more data analysis, the Air Force decided to do further work at 9 additional sites.

129616

Alternative Fuels: Potential of Methanol as a Boiler or Turbine Fuel. RCED-86-136FS; B-217943. April 4, 1986. 20 pp. *Fact Sheet* to Rep. Philip R. Sharp, Chairman, House Committee on Energy and Commerce: Fossil and Synthetic Fuels Subcommittee; by James Duffus, III, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-85-97, May 3, 1985, Accession Number 126896; and RCED-87-10BR, October 17, 1986, Accession Number 131615.

Issue Area: Energy: Assessing Whether the DOE R&D Program Will Result in Developing Needed Alternative Energy Technologies To Meet Future Energy Demand (6410); Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Supply (271.0).

Congressional Relevance: *House* Committee on Energy and Commerce: Fossil and Synthetic Fuels Subcommittee; *Rep.* Philip R. Sharp.

Abstract: Pursuant to a congressional request, GAO provided information on the potential for using methanol as a fuel for producing energy from stationary sources such as boilers and gas turbines.

Findings/Conclusions: GAO found that methanol is not economically viable as a boiler fuel at present because: (1) it is extremely costly; (2) it has a lower thermal efficiency than other boiler fuels; and (3) fossil fuels are relatively plentiful. Methanol has been tested, but not commercially demonstrated, as a fuel that could be used in a two-stage boiler combustion system to reduce pollutant emissions. GAO also found that: (1) methanol has technical advantages over other gas turbine fuels; (2) while methanol is more expensive than other turbine fuels, it may become more attractive than other fuels because it creates fewer pollutants; and (3) methanol may be a potential standby fuel for gas turbines during fuel supply disruptions. In addition, GAO found that: (1) it could be cheaper to produce methanol in coal gasification plants because the gas such plants produce is chemically similar to that used to produce methanol; and (2) a combination of technical and cost factors prevent the widespread use of coal and methanol mixtures as boiler fuel.

129698

Nuclear Waste: Department of Energy's Program for Financial Assistance. RCED-86-4; B-202377. April 1, 1986. 45 pp. plus 1 appendix (5 pp.). *Report* to John S. Herrington, Secretary, Department of Energy; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to RCED-86-154FS, April 30, 1986, Accession Number 129833; RCED-87-48FS, November 5, 1986, Accession Number 131594; RCED-87-17, April 15, 1987, Accession Number 132701; and RCED-87-14, February 9, 1987, Accession Number 132140.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Supply (271.0).

Organization Concerned: Department of Energy; Department of Energy: Office of Civilian Radioactive Waste Management; Confederated Tribes of the

Umatilla Indian Reservation; Nez Perce Tribe; Yakima Indian Nation.

Congressional Relevance: *House* Committee on Science and Technology; *House* Committee on Energy and Commerce; *House* Committee on Appropriations: Energy and Water Development Subcommittee; *House* Committee on Government Operations; *Senate* Committee on Environment and Public Works; *Senate* Committee on Energy and Natural Resources; *Senate* Committee on Appropriations: Energy and Water Development Subcommittee; *Senate* Committee on Governmental Affairs.

Authority: Nuclear Waste Policy Act of 1982 (42 U.S.C. 10101). Energy and Water Development Appropriation Act, 1984. Single Audit Act of 1984 (P.L. 98-502). 10 C.F.R. 600. H. Rept. 99-55. H. Rept. 98-217. OMB Circular A-102, Attach. O. OMB Circular A-128.

Abstract: GAO evaluated the Department of Energy's (DOE) program to provide grants under the Nuclear Waste Policy Act of 1982, focusing on: (1) DOE decisions on who received grants and for what activities; (2) the level of assistance provided; and (3) DOE grant administration and oversight.

Findings/Conclusions: The act provides that state and public participation in the nuclear waste repository program is essential to promote public confidence in the safety of radioactive waste disposal. Financial assistance grants to the affected parties are a way to ensure this participation. DOE has used its discretionary funding authority to award grants to second-repository states, national associations, and Indian tribes. The guidelines, which provide general policy guidance for grant awards and administration of the repository programs, have not ensured consistent decisions on who receives grants and what activities are funded. In some instances, DOE decisions on grant awards have been influenced more by budgetary considerations than by grantees' needs. GAO believes that: (1) incorporating consideration of grantees' projected needs into program budget planning could help DOE more realistically anticipate those needs; (2) congressional oversight of the financial assistance program could be better facilitated if DOE presented specific budget estimates on the funding it expected to provide for the first and second repository programs and other parties; and (3) with more realistic budgets, DOE could focus on grantee application merits in making funding judgments. Although DOE regulations describe the grantee requirements and provide an opportunity to request a waiver of the requirements, grantees have neither consistently complied with nor requested waivers of the requirements, and DOE has not enforced them.

Recommendation To Agencies: To help ensure consistent program evaluation, the Secretary of Energy should direct the Director, Office of Civilian Radioactive Waste Management (OCRWM), to better define what activities should be funded in OCRWM internal grant guidelines for first- and second-repository states. To assist Congress in its oversight of the DOE financial assistance program under the act, the Secretary of Energy should specify, in future budget requests for the Nuclear Waste Fund, grant funding for the first repository program, second repository program, and other parties. The Secretary should also survey grantees as to their projected needs for the budget period, in order to make appropriate financial assistance estimates. To ensure management control over grant awards, the Secretary of Energy should ensure compliance with the requirements of DOE financial assistance regulations. These requirements could, of course, be waived if DOE determines that the conditions for granting a waiver are present.

129699

Biotechnology: Agriculture's Regulatory System Needs Clarification. RCED-86-59; B-222146. March 25, 1986. 64 pp. plus 2 appendices (6 pp.). *Report* to Rep. Don Fuqua, Chairman, House Committee on Science and Technology; by Milton J. Socolar (for Charles A. Bowsher, Comptroller General). Refer to RCED-86-39BR, October 25, 1985, Accession Number 128383; CED-82-7, December 4, 1981, Accession Number 116986; and Testimony, May 8, 1986, Accession Number 129809.

Issue Area: Food and Agriculture: Effectiveness of U.S. Food/Agriculture Products in Satisfying Safety, Quality, and Dietary Needs (6508); Environment: Evaluation of the Federal Pesticide Regulatory Process' Capability To Protect Public Health and the Environment From Unreasonable Risks (6806); Science and Technology Policy and Programs: Other Issue Area Work (9391).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Agriculture: Agricultural Research and Services (352.0).

Organization Concerned: Department of Agriculture: Agriculture Recombinant DNA Research Committee; Department of Agriculture; Office of Science and Technology Policy.

Congressional Relevance: *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *House* Committee on Science, Space, and Technology; *House* Committee on Appropriations: Agriculture, Rural Development, and Related Agencies Subcommittee; *House* Committee on Agriculture; *House* Committee on Science and Technology; *Senate* Committee on Appropriations: Agriculture and Related Agencies Subcommittee; *Senate* Committee on Agriculture, Nutrition, and Forestry; *Rep.* Don Fuqua.

Authority: Food, Drug and Cosmetic Act (21 U.S.C. 301 et seq.). Public Health Service Act (42 U.S.C. 262). Occupational Safety and Health Act of 1970 (29 U.S.C. 651 et seq.). Toxic Substances Control Act (15 U.S.C. 2601 et seq.). Insecticide, Fungicide and Rodenticide Act (7 U.S.C. 136). Plant Quarantine Act (7 U.S.C. 151 et seq.). Plant Pest Act (7 U.S.C. 150aa). Virus, Serum and Toxin Act (21 U.S.C. 151 et seq.). Environmental Policy Act of 1969 (National). Meat Inspection Act (21 U.S.C. 601 et seq.). Poultry Products Inspection Act (21 U.S.C. 451 et seq.). P.L. 99-198. 49 Fed. Reg. 50856. 50 Fed. Reg. 29367.

Abstract: In response to a congressional request, GAO reviewed the Department of Agriculture's (USDA): (1) programs and activities relating to biotechnology; (2) decisionmaking concerning the release of genetically engineered organisms into the environment; and (3) relationship with other federal agencies involved in biotechnology.

Findings/Conclusions: GAO found that: (1) USDA has not formulated a well-defined regulatory structure to approve requests for the deliberate release of genetically engineered organisms into the environment; (2) oversight of biotechnology programs is handled by agencies within USDA that have other responsibilities and were established before the emergence of new biotechnologies; (3) the USDA Agriculture Recombinant DNA Research Committee (ARRC) lacks the authority and direction to effectively act as the focal point for biotechnology matters; and (4) USDA has not communicated to Congress and the public the benefits and the risks of biotechnology, as well as its plans to minimize those risks. GAO also found that USDA has been hesitant to develop a well-defined regulatory structure because: (1) it does not want to

impose cumbersome regulations that might stifle growth; (2) the Office of Science and Technology Policy (OSTP) has been examining biotechnology regulation and coordinating the actions of many federal agencies; and (3) several lawsuits filed by opponents of biotechnology have created some anxiety. USDA has recently set up a general framework for biotechnology regulation, but it still needs to establish: (1) detailed procedures concerning responsibility for a wide range of research and product development; (2) ARRC authority and duties; and (3) improved communications with Congress and the public for more informed discussion and a lessening of fears.

Recommendation To Agencies: The Secretary of Agriculture should direct the Assistant Secretaries for Marketing and Inspection Services and Science and Education to work together to develop a formalized, well-defined regulatory structure over biotechnology, particularly with regard to deliberate releases of genetically engineered organisms into the environment. Such a structure should be sufficiently detailed to minimize questions about who in USDA is responsible for decisions in particular areas and flexible enough to encompass the wide range of biotechnological research and product development expected. It could, if deemed appropriate, incorporate a fully developed National Biological Impact Assessment Program and recombinant deoxyribonucleic acid guidelines geared specifically toward agriculture. Further, it should clearly identify the regulatory procedures for handling requests to license biotechnology products and approve the deliberate release of genetically engineered organisms into the environment. The Secretary of Agriculture should direct the Assistant Secretaries for Marketing and Inspection Services and Science and Education to work together to provide the USDA coordinating committee, currently ARRC, with the authority, prestige, and sense of direction it needs to effectively act as the USDA focal point for biotechnology. The committee should have the power to resolve differences that may arise with regard to biotechnology within USDA and to act on behalf of USDA in resolving differences between USDA and other federal agencies, such as the National Institutes of Health, Environmental Protection Agency, or Food and Drug Administration. The committee should be constituted as it is now with representatives from various agencies within and outside USDA. The various representatives should be able and willing to commit high priority to their committee responsibilities. The Secretary of Agriculture should look for, and take advantage of, opportunities to improve and increase the communication of USDA views on biotechnology, both in terms of the benefits to be derived and the risks that must be considered and managed. In this regard, the Secretary should consider a variety of approaches for doing this, including brochures, newsletters, public conferences and debates, and a Yearbook of Agriculture devoted to biotechnology. The purpose of all such communication should be to foster a more open, frank, and informed discussion about USDA views on biotechnology and how USDA will address the related risks.

129805

EPA Construction Grants: Information on the North River Wastewater Treatment Plant Contracts. RCED-86-96FS; B-222017. April 3, 1986.

Released May 6, 1986. 25 pp. *Fact Sheet* to Sen. Daniel P. Moynihan; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division.

Issue Area: Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency; New York, NY: Department of Environmental Protection.

Congressional Relevance: *Sen.* Daniel P. Moynihan.

Authority: Water Pollution Control Act Amendments of 1977 (Federal) (33 U.S.C. 1251 et seq.). P.L. 84-660.

Abstract: Pursuant to a congressional request, GAO obtained information pertaining to New York City's North River Wastewater Treatment Plant, including: (1) salary information for certain contractor employees; and (2) the contracting process that the city followed in awarding contracts for the plant's construction. The project is funded through an Environmental Protection Agency (EPA) grant to the city's Department of Environmental Protection.

Findings/Conclusions: GAO found that: (1) the master mechanic employed on the project earned $129,649 during 1984; (2) the four working teamster foremen employed on the project earned between $34,881 and $61,319 during the same period; (3) the salaries for the specified employees are paid pursuant to a collective bargaining agreement; (4) various government and union officials stated that the salaries were not unusual; (5) none of the applicable regulations or the solicitations for the construction contracts contained any limit on maximum wages; and (6) the city awarded each of the eight largest contracts for the project to the lowest bidder after competitive bidding, in accordance with applicable EPA regulations.

129809

[GAO Reviews of USDA Biotechnology Research Efforts and Regulatory Programs and Activities]. May 8, 1986. 7 pp. *Testimony* before the Senate Committee on Environment and Public Works: Toxic Substances and Environmental Oversight Subcommittee; by Brian P. Crowley, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-86-39BR, October 25, 1985, Accession Number 128383; and RCED-86-59, March 25, 1986, Accession Number 129699.

Contact: Resources, Community, and Economic Development Division.

Organization Concerned: Department of Agriculture: Agriculture Recombinant DNA Research Committee.

Congressional Relevance: *Senate* Committee on Environment and Public Works: Toxic Substances and Environmental Oversight Subcommittee; *Rep.* Don Fuqua.

Abstract: GAO discussed its two recent reports on the Department of Agriculture's (USDA) biotechnology research efforts and regulatory programs and activities. GAO noted that: (1) USDA sponsored 778 biotechnology projects in fiscal years 1984 and 1985 at an annual cost of $40.5 million; and (2) 87 of the projects were expected to involve the deliberate release of genetically engineered organisms into the environment. GAO also noted that USDA: (1) has not provided its Agriculture Recombinant DNA Research Committee (ARRC) with the authority or direction it needs to serve as the USDA focal point for biotechnology matters; (2) needs to completely develop a formal, well-defined regulatory mechanism for biotechnology; (3) should make ARRC or its successor responsible for all biotechnology matters, including representing USDA in interagency biotechnology efforts; and (4) needs to

better inform Congress and the public about the expected benefits and potential risks of biotechnology research.

129833

Quarterly Report on DOE's Nuclear Waste Program as of March 31, 1986. RCED-86-154FS; B-202377. April 30, 1986. 21 pp. *Fact Sheet* to Sen. James A. McClure, Chairman, Senate Committee on Energy and Natural Resources; Sen. J. Bennett Johnston, Ranking Minority Member, Senate Committee on Energy and Natural Resources; by Keith O. Fultz, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-85-27, January 10, 1985, Accession Number 125996; RCED-85-100, September 30, 1985, Accession Number 128021; RCED-85-42, October 19, 1984, Accession Number 125544; RCED-85-65, January 31, 1985, Accession Number 126199; RCED-85-116, April 30, 1985, Accession Number 126921; RCED-85-156, July 31, 1985, Accession Number 127746; RCED-86-42, October 30, 1985, Accession Number 128514; RCED-86-86, January 31, 1986, Accession Number 129261; RCED-86-4, April 1, 1986, Accession Number 129698; and RCED-87-95FS, February 19, 1987, Accession Number 132206.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).

Organization Concerned: Department of Energy; National Academy of Sciences.

Congressional Relevance: *Senate* Committee on Energy and Natural Resources; *Sen.* J. Bennett Johnston; *Sen.* James A. McClure.

Authority: Nuclear Waste Policy Act of 1982 (P.L. 97-425). Safe Drinking Water Act. Administrative Procedure Act.

Abstract: Pursuant to congressional requests, GAO provided its quarterly status report on the Department of Energy's (DOE) implementation of its nuclear waste program.

Findings/Conclusions: GAO found that, during the quarter: (1) the National Academy of Sciences completed its independent review of the methodology DOE used to evaluate and rank first-repository sites and concluded that the methodology was satisfactory and appropriate; (2) DOE completed its proposal for a monitored retrievable storage facility, but a U.S. district court ruled that DOE could not submit the proposal to Congress, and DOE is awaiting a decision on its appeal to a higher court; (3) DOE issued a draft area recommendation report which identified 12 areas in 7 states as potentially acceptable sites for a second waste repository; (4) the Nuclear Waste Fund collected over $128 million in fees and investment income and obligated over $100 million for program activities; and (5) the Fund balance as of March 31, 1986, was about $1.6 billion.

129843

International Response to Nuclear Power Reactor Safety Concerns. NSIAD-85-128; B-215047. September 30, 1985. 34 pp. plus 3 appendices (6 pp.). *Report* to George P. Shultz, Secretary, Department of State; Nunzio J. Palladino, Chairman, Nuclear Regulatory Commission; by Frank C. Conahan, Director, National Security and International Affairs Division. Refer to RCED-84-43, August 1, 1984, Accession Number 124844; and RCED-84-149, September 19, 1984, Accession Number 125195.

Issue Area: Energy: Other Issue Area Work (6491); International Trade and Commercial Policy: Other Issue Area Work (6391).

Contact: National Security and International Affairs Division.

Budget Function: International Affairs: Foreign Economic and Financial Assistance (151.0).

Organization Concerned: International Atomic Energy Agency; Organization for Economic Cooperation and Development: Nuclear Energy Agency; Nuclear Regulatory Commission; Department of State.

Authority: Energy Reorganization Act of 1974. Nordic Mutual Emergency Assistance Agreement in Connection with Radiation Accidents, Oct. 17, 1963, Multilateral, 525 U.N.T.S. 75 .

Abstract: GAO summarized the activities of international organizations working to prevent or alleviate the consequences of a nuclear power accident, specifically the sharing of nuclear safety information and the establishment of a framework for an international response to nuclear accidents.

Findings/Conclusions: GAO noted that: (1) approximately 300 nuclear power plants are operating worldwide; (2) the International Atomic Energy Agency (IAEA) rated the nuclear safety record of these plants as good; and (3) by the year 2000, developing countries will be operating more than half of the world's nuclear reactors. GAO also noted that: (1) developing countries have limited resources and experience in operating nuclear power plants; (2) most countries prefer to develop nonbinding guidelines, rather than legal measures, for assisting each other in the event of a nuclear accident; (3) little information on the extent and seriousness of safety-related incidents in foreign countries is available; (4) many countries may need outside assistance in the event a major radiation accident occurs; and (5) an international forum for sharing information on the operation of 80 percent of the world's nuclear reactors has been established.

129887

Nuclear Waste: Monitored Retrievable Storage of Spent Nuclear Fuel. RCED-86-104FS; B-202377. May 8, 1986.

Released May 15, 1986. 32 pp. *Fact Sheet* to Rep. Morris K. Udall, Chairman, House Committee on Interior and Insular Affairs; Rep. Edward J. Markey, Chairman, House Committee on Energy and Commerce: Energy Conservation and Power Subcommittee; by Keith O. Fultz, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-87-48FS, November 5, 1986, Accession Number 131594; RCED-86-198FS, August 15, 1986, Accession Number 130812; RCED-87-92, June 1, 1987, Accession Number 133202; and T-RCED-88-55, July 26, 1988, Accession Number 136406.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Supply (271.0).

Organization Concerned: Department of Energy: Office of Civilian Radioactive Waste Management; Tennessee.

Congressional Relevance: *House* Committee on Energy and Commerce: Energy Conservation and Power Subcommittee; *House* Committee on Interior and Insular Affairs; *Rep.* Edward J. Markey; *Rep.* Morris K. Udall.

Authority: Nuclear Waste Policy Act of 1982.

Abstract: Pursuant to a congressional request, GAO provided information on the Department of Energy's (DOE) program for monitored retrievable

storage (MRS) of spent nuclear fuel, including: (1) the purpose of the MRS program; (2) Tennessee's role in the development of the DOE MRS proposal and its role in future MRS activities; (3) the potential benefits and disadvantages of the MRS program; (4) the impact of siting an MRS facility in Tennessee; and (5) the results of a survey of utilities affected by DOE nuclear waste management activities.

Findings/Conclusions: GAO found that: (1) the primary purpose of the MRS program is to develop a facility to receive and prepare spent nuclear fuel for shipment to a permanent geological repository; (2) DOE identified three sites in Tennessee as acceptable for an MRS facility and chose one site as most preferable; (3) Tennessee sued DOE, alleging that DOE failed to timely consult with it about the site selection; (4) the court enjoined DOE from making any MRS proposal to Congress that was based on information DOE obtained before it consulted with Tennessee; and (5) the injunction will remain effective until a DOE appeal has been resolved. GAO also found that an MRS facility would: (1) improve the development of nuclear waste management by allowing DOE to begin regulatory activities earlier; (2) improve the reliability, flexibility, and efficiency of DOE waste management; (3) improve waste transportation operations; (4) increase system costs and regulatory requirements; (5) increase the complexity of the system and geographically redistribute waste shipments; (6) significantly increase the Nuclear Waste Fund's short-term cash requirements; and (7) have significant local economic impacts, but minimal environmental impacts. GAO also found that: (1) most of the utilities it surveyed believe that they can provide for their spent-fuel storage needs until DOE makes a repository available, unless the repository program falls seriously behind schedule; and (2) while more utilities support an MRS facility than oppose one, more utilities would prefer a system with only a geological repository.

129891

[General Services Administration's Asbestos Abatement Program]. May 15, 1986. 12 pp. *Testimony* before the Senate Committee on Environment and Public Works; Toxic Substances and Environmental Oversight Subcommittee; by James G. Mitchell, Senior Associate Director, General Government Division.

Contact: General Government Division.

Organization Concerned: General Services Administration; Environmental Protection Agency; Occupational Safety and Health Administration.

Congressional Relevance: *Senate* Committee on Environment and Public Works: Toxic Substances and Environmental Oversight Subcommittee.

Authority: Clean Air Act. Toxic Substances Control Act. S. 2300 (99th Cong.).

Abstract: GAO discussed the General Services Administration's (GSA) asbestos abatement program for its buildings and proposed legislation relating to asbestos inspections and control procedures. GAO noted that: (1) the Occupational Safety and Health Administration (OSHA) and the Environmental Protection Agency (EPA) have both issued regulations on asbestos control but neither requires the removal of asbestos from existing buildings; (2) EPA has designed its regulations for new construction applications to limit asbestos exposure; and (3) GSA has adopted the EPA asbestos guidance in its abatement program. GAO also noted that: (1) while GSA has made more progress in implementing an abatement program than many nonfederal organizations, it has still not inspected all of its owned and leased space to determine the presence of asbestos and the need for abatement; (2) GSA requires lessors to certify that their buildings do not contain soft asbestos materials; (3) GSA has used untrained personnel to perform some asbestos inspections; (4) GSA did not always document negative inspection findings or analyze samples; and (5) GSA cannot presently estimate its total abatement costs. In addition, GAO noted that pending legislation would require that: (1) trained personnel conduct inspections; (2) agencies develop operations and maintenance plans for buildings containing asbestos; (3) GSA inspect any building it intends to lease; and (4) GSA inspect all of its owned buildings. GAO believes that Congress may wish to consider adding provisions to the legislation to address permissible levels of asbestos contamination and methods for analyzing air concentrations of asbestos.

129907

Hazardous Waste: DOD's Efforts To Improve Management of Generation, Storage, and Disposal. NSIAD-86-60; B-213706. May 19, 1986. 63 pp. plus 5 appendices (28 pp.). *Report* to Congress; by Charles A. Bowsher, Comptroller General. Refer to NSIAD-87-87, April 22, 1987, Accession Number 133387; and T-RCED-88-24, March 10, 1988, Accession Number 135246.

Issue Area: Environment: Other Issue Area Work (6891); Air Force: Other Issue Area Work (5491).

Contact: National Security and International Affairs Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0); National Defense: Department of Defense - Military (Except Procurement and Contracting) (051.0).

Organization Concerned: Department of Defense; Defense Logistics Agency.

Congressional Relevance: *House* Committee on Appropriations: Defense Subcommittee; *House* Committee on Armed Services; *Senate* Committee on Appropriations: Defense Subcommittee; *Senate* Committee on Armed Services; Congress.

Authority: Resource Conservation and Recovery Act of 1976.

Abstract: GAO reviewed the Department of Defense's (DOD) progress in managing hazardous waste generation, storage, and disposal at its U.S. installations, specifically: (1) the extent to which the facilities are meeting hazardous waste requirements under the Resource Conservation and Recovery Act of 1976; (2) the Defense Logistics Agency's effectiveness in disposing of waste and constructing storage facilities; and (3) DOD progress in reducing the volume of hazardous waste that requires disposal.

Findings/Conclusions: GAO noted that DOD: (1) gave its services, commands, and installation commanders the authority to achieve compliance under the act; (2) requires audits of installations' compliance; and (3) will measure the services' success in implementing DOD policies and programs. GAO found that: (1) over half the facilities and 90 percent of the generators inspected were not in compliance with the act; (2) some installations stored hazardous waste for too long because contractors did not pick up the waste in a timely fashion or defaulted on their contracts, or DOD failed to issue delivery orders; (3) construction of storage facilities is behind schedule; and (4) DOD is not operating waste treatment plants at full capacity.

Recommendation To Agencies: The Secretary of Defense should monitor the implementation of the new policy to ensure that, in practice, it succeeds in providing the services, commands, and installations with the authority and flexibility needed to accomplish DOD goals, and the requirements of the act

with regard to the generation, storage, and disposal of hazardous waste.

129938

[Federal Actions in Dealing With Contaminated Imported Wines]. May 28, 1986. 12 pp. plus 4 appendices (8 pp.). *Testimony* before the House Committee on Government Operations: Commerce, Consumer and Monetary Affairs Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-86-112, March 4, 1986, Accession Number 129587.

Contact: Resources, Community, and Economic Development Division.
Organization Concerned: Bureau of Alcohol, Tobacco and Firearms; Food and Drug Administration.
Congressional Relevance: *House* Committee on Government Operations: Commerce, Consumer and Monetary Affairs Subcommittee. .
Abstract: GAO discussed Food and Drug Administration (FDA) and Bureau of Alcohol, Tobacco, and Firearms (BATF) actions in dealing with imported wines contaminated with the industrial chemical diethylene glycol (DEG), a highly toxic substance used in industrial applications. In 1985, after DEG was found in some Austrian, West German, and Italian wines, the Bureau began testing those wines. Although FDA is responsible for preventing the importation of contaminated food and beverages and for testing samples of domestic and imported products, it does not usually test imported alcoholic beverages for contaminants. Standard BATF tests only determine ingredient levels and verify labeling accuracy. The BATF initiated a DEG testing effort because it could conduct the testing more quickly than FDA; subsequently, FDA referred the DEG testing to BATF. BATF held all shipments of Austrian wines for testing and asked wholesalers and importers of Austrian wines to have private laboratories test samples of their imported wines. However, BATF success in testing all Austrian wines is unknown because it did not identify which importers and wholesalers sold and distributed Austrian wines, or which Austrian wines they currently marketed in the United States. BATF relied on importers and wholesalers to remove all contaminated wines from the market, but it did not routinely review their actions or require them to report on their actions. GAO concluded that: (1) because BATF did not identify those importers actively importing Austrian wines, it could not assess compliance with the testing and reporting requirement; (2) BATF did not maintain and disseminate a current master list of all contaminated wines; and (3) gaps and inconsistencies in BATF recordkeeping may have hampered its ability to ensure that it identified all contaminated wines and to monitor the actions of importers in removing those wines from the market. GAO believes that the government needs to provide an appropriate degree of assurance that it will identify and remove from the market wines with DEG in amounts representing a significant risk to health.

129955

Federal Land Management: Permits for Film-Making and Wind Studies in Southern California. RCED-86-135BR; B-222708. April 4, 1986.
Released May 23, 1986. 22 pp. *Briefing Report* to Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by Michael Gryszkowiec, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-88-132, May 17, 1988, Accession Number 135930.

Issue Area: Natural Resources Management: Other Issue Area Work (6991).
Contact: Resources, Community, and Economic Development Division.
Budget Function: Natural Resources and Environment: Conservation and Land Management (302.0).
Organization Concerned: Bureau of Land Management.
Congressional Relevance: *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *Rep.* Michael L. Synar.
Authority: 43 C.F.R. 2920.
Abstract: In response to a congressional request, GAO provided information on the Bureau of Land Management's (BLM) issuance of temporary use permits during fiscal years (FY) 1982 through 1985 for wind anemometers and movie and television filming at four BLM resource area offices in California. Findings/Conclusions: GAO found that: (1) during FY 1982 through 1985, BLM issued temporary land use permits for 7 wind anemometer studies, 30 movie film productions, and 191 television commercials or programs; (2) BLM is currently charging $25 a year per wind anemometer, $100 per day for movie and television filming involving less than 50 people, and $200 per day for filming involving more than 50 people; and (3) BLM had incorrectly charged for some permits and did not recover full costs for permits that cost over $250. BLM attributed the incorrect charges to clerical errors and its misunderstanding of regulations concerning assessment and collection of certain costs.

129999

Pesticides: EPA's Formidable Task To Assess and Regulate Their Risks. RCED-86-125; B-203051. April 18, 1986.
Released May 27, 1986. 120 pp. plus 8 appendices (14 pp.). *Report* to Sen. David Durenberger, Chairman, Senate Committee on Environment and Public Works: Toxic Substances and Environmental Oversight Subcommittee; Sen. Max S. Baucus, Ranking Minority Member, Senate Committee on Environment and Public Works: Toxic Substances and Environmental Oversight Subcommittee; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to CED-80-32, February 15, 1980, Accession Number 111866; RED-76-42, December 4, 1975, Accession Number 096904; HRD-82-3, December 11, 1981, Accession Number 117047; Testimony, February 14, 1978, Accession Number 105119; T-RCED-87-21, April 30, 1987, Accession Number 132820; RCED-87-142, September 30, 1987, Accession Number 134133; and T-RCED-87-27, June 8, 1987, Accession Number 133153.

Issue Area: Environment: Evaluation of the Federal Pesticide Regulatory Process' Capability To Protect Public Health and the Environment From Unreasonable Risks (6806); Health Delivery and Quality of Care: Effectiveness of FDA in Monitoring the Marketplace, Detecting Violations, Ensuring Compliance, and Coordinating With Other Agencies (5205).
Contact: Resources, Community, and Economic Development Division.
Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).
Organization Concerned: Environmental Protection Agency.
Congressional Relevance: *House* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *House* Committee on Energy and Commerce; *House* Committee on Agriculture; *Senate* Committee on Environment and Public Works: Superfund and Environmental Oversight Subcommittee; *Senate* Committee on

Appropriations: HUD-Independent Agencies Subcommittee; *Senate* Committee on Environment and Public Works; *Senate* Committee on Agriculture, Nutrition, and Forestry; *Senate* Committee on Environment and Public Works: Toxic Substances and Environmental Oversight Subcommittee; Congress; *Sen.* Max S. Baucus; *Sen.* David Durenberger.

Authority: Insecticide, Fungicide and Rodenticide Act (7 U.S.C. 136 et seq.). Food, Drug and Cosmetic Act (21 U.S.C. 301 et seq.). Administrative Procedure Act (5 U.S.C. 551 et seq.). 40 C.F.R. 158. P.L. 88-136. H.R. 4364 (99th Cong.). S. 2215 (99th Cong.). S. Rept. 95-1188. Birth Defect Prevention Act (California). 31 U.S.C. 9701.

Abstract: In response to a congressional request, GAO reviewed the Environmental Protection Agency's (EPA) assessment and regulation process for the health and environmental effects of pesticides.

Findings/Conclusions: GAO noted that EPA: (1) has not received test and evaluation data on the adverse health and environmental effects of most of the currently registered pesticide products; (2) may conduct a special review to determine the risks and benefits of potentially hazardous pesticides to decide if regulatory action to cancel or restrict the pesticides is needed; and (3) is responsible for determining the maximum amount of pesticide residue that can be safely left in foods, the risks of the inert ingredients that propel, dilute, or stabilize the active ingredients, and the cancer-causing potential of pesticides. GAO found that EPA: (1) will continue its reassessment and reregistration efforts into the next century because of the magnitude and complexity of the tasks involved; (2) is implementing changes to speed up its special review process; (3) is experiencing difficulty in obtaining test data on the effects of some inert ingredients; and (4) has encountered legal inconsistencies with respect to the allowable uses of cancer-causing pesticides in variable situations.

Recommendation To Congress: Congress may wish to consider the advantages and disadvantages of alternatives for accelerating reregistration. Among some possible alternatives, Congress may wish to consider: (1) shifting the burden to industry to identify and submit data missing from EPA files or no longer valid or adequate by contemporary scientific standards; (2) setting reasonable deadlines for the generation and review of health and environmental tests for older pesticides on the market; and (3) providing EPA with additional resources to expedite the pace of reassessing older pesticides and reviewing the volume of industry-submitted health and environmental studies that EPA expects to receive in the coming years as a result of its efforts to call in needed data. User fees under consideration by EPA might be one method of funding the additional resources. Congress may wish to consider the advantages and disadvantages of the following alternatives for regulating carcinogenic food-use pesticides: (1) amending the Food, Drug and Cosmetic Act (FDC) and the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) to prohibit the setting of tolerances and all food uses of carcinogenic pesticides, in raw agricultural commodities and as food and feed additives, to require EPA to revoke the existing tolerances for carcinogenic pesticide residues, and to cancel the pesticide registration of these uses; and (2) amending FDC to lift the Delaney Clause's ban on carcinogens as it relates to pesticides, and instead specify that either a risk-benefit or minimal-risk approach be used for setting tolerances for all food uses of carcinogenic pesticides. Congress may wish to consider the following alternatives to ensure that EPA continues efforts to carry out its proposals to tighten up conditioned registrations of new pesticides: (1) requiring EPA, in its FIFRA-mandated annual report to Congress, to include information on the status of registrants' compliance with the conditions imposed for each of the conditional registrations of new pesticides granted during preceding years; and (2) amending FIFRA to limit conditional registrations of new pesticide active ingredients without complete testing by defining "in the public interest" in a restrictive or limited manner. Congress may wish to consider the advantages and disadvantages of the following alternatives for accelerating the special review process: (1) providing EPA with additional resources to allow it to more quickly review studies and data related to on going special reviews, and to meet future increases in the special review work load anticipated by EPA; and (2) setting deadlines for completion of special reviews, or for some or all of the special review phases, which recognize the complexities of special reviews, and the resource requirements necessary to meet such deadlines. The first alternative should be considered in conjunction with the other GAO suggestion on resources for accelerating pesticide reregistration.

Recommendation To Agencies: The Administrator, EPA, should cancel registrations of those products whose labels are not in compliance with registration standard requirements. Should the Administrator determine that statutory authority is needed to more efficiently implement label requirements, the Administrator should develop and submit to Congress the appropriate legislative language to achieve this objective. The Administrator, EPA, should conduct a pilot test to determine whether registrants can successfully review existing data to identify and replace inadequate or invalid studies and the EPA ability to successfully oversee registrant data submissions. Further, the Administrator should consider the results of the pilot study in determining whether and how to accelerate reregistration by further shifting the burden to industry to fill gaps in tests on existing pesticides. The Administrator, EPA, should discontinue reregistering individual pesticide products, by amending current policies and procedures, until EPA has received and reviewed all data and completely reassessed the pesticides. Should the Administrator determine that congressional direction on the requirements for reregistering pesticide products would be desirable, the Administrator should seek such clarification and direction from Congress. The Administrator, EPA, should develop and publish a policy concerning tolerance setting for carcinogenic pesticides, including criteria on how it decides whether to grant or deny such tolerances, and allow for public comment. The Administrator, EPA, should examine means to more readily obtain health and environmental effects test data on inerts. This should include examining an easing of the FIFRA confidentiality provision and requesting from Congress any such additional authority needed to achieve this objective. This action may facilitate sharing the cost of generating data among pesticide registrants of inerts, while also providing some degree of continued protection of trade secrets of pesticide formulations. The Administrator, EPA, should: (1) review outstanding conditional registrations of new pesticide active ingredients; (2) determine what progress is being made by registrants to develop and submit the required health and environmental effects test data; and (3) take appropriate action, such as suspending or cancelling the pesticide registration, in those cases where the registrant has not made reasonable progress to comply with the conditions imposed on the conditional registrations.

130000

Motor Carriers: The Availability of Environmental Restoration Insurance. RCED-86-150BR; B-222849. May 19, 1986.

Released May 27, 1986. 57 pp. *Briefing Report* to Rep. Glenn M. Anderson, Chairman, House Committee on Public Works and Transportation: Surface Transportation Subcommittee; by Herbert R. McLure, Associate Director, Resources, Community, and Economic Development Division. Refer to HRD-87-18BR, November 21, 1986, Accession Number 131841; and RCED-88-2, October 16, 1987, Accession Number 134208.

Issue Area: Transportation: Other Issue Area Work (6691).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Transportation: Ground Transportation (401.0).

Organization Concerned: Department of Transportation.

Congressional Relevance: *House* Committee on Public Works and Transportation: Surface Transportation Subcommittee; *Rep.* Glenn M. Anderson.

Authority: Motor Carrier Act of 1980. Bus Regulatory Reform Act of 1982. Comprehensive Environmental Response, Compensation, and Liability Act of 1980. 49 C.F.R. 172.101. 49 C.F.R. 387.

Abstract: In response to a congressional request, GAO provided information relating to problems confronting the insurance and trucking industries in complying with the requirements of the Motor Carrier Act of 1980.

Findings/Conclusions: The act requires trucking firms that haul hazardous cargo and all interstate for-hire trucking firms to have minimum levels of liability coverage for bodily injury, property damage, and environmental restoration. To comply with the act, most trucking firms purchase a commercial auto liability insurance policy which provides the traditional bodily injury and property damage coverage, as well as the environmental restoration coverage. GAO found that: (1) in 1986, some trucking firms would have problems obtaining insurance at the $750,000- and $1-million coverage levels in the voluntary markets; and (2) obtaining the $5-million coverage level would be extremely difficult, particularly for new trucking firms, because most insurers intend to decrease the number of policies they issue or not offer that coverage level. GAO also found that insurers object to writing environmental restoration coverage, particularly at the $5-million level, because there are too many unknown risks involved and they are unable to obtain reinsurance. To address their concerns, many insurers advocated amending the act to: (1) lower the minimum financial responsibility required or give the Secretary of Transportation authority to determine it; and (2) eliminate the environmental restoration clause or define the scope of the clause so it clearly describes what is being insured.

130069

Nuclear Energy: A Compendium of Relevant GAO Products on Regulation, Health, and Safety. RCED-86-132; B-223176. June 6, 1986. 3 pp. plus 2 appendices (44 pp.). *Report* to Congress; by Charles A. Bowsher, Comptroller General. Refers to numerous reports and testimonies on nuclear energy from January 1, 1979 to May 15, 1986.

Issue Area: Energy: Other Issue Area Work (6491).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).

Organization Concerned: Department of Energy; Nuclear Regulatory Commission; Department of Energy: Savannah Nuclear Power Station; Department of Energy: Hanford Power Station.

Congressional Relevance: Congress.

Authority: Nuclear Waste Policy Act of 1982. Price-Anderson Act (Atomic Energy Damages) (42 U.S.C. 2210). Energy Reorganization Act of 1974.

Abstract: GAO summarized its previous reports and testimonies from January 1, 1979 to May 15, 1986 on nuclear: (1) energy; (2) regulation; (3) environment, health, and safety issues; and (4) waste management and disposal procedures.

Findings/Conclusions: GAO noted that: (1) awareness of the environment, health, and safety issues concerning nuclear power in the United States has increased, as a result of the Chernobyl nuclear power plant accident in the Soviet Union; (2) the adequacy of the Nuclear Regulatory Commission's oversight of domestic commercial nuclear facilities is a major concern; and (3) in previous reports it had recommended methods for improving oversight of Department of Energy (DOE) nuclear facilities. GAO found that, although DOE has made some improvements to correct oversight deficiencies, organizational independence of the oversight function may still be a problem area.

130081

Hazardous Waste: Responsible Party Clean Up Efforts Require Improved Oversight. RCED-86-123; B-221269. May 6, 1986. 32 pp. *Report* to Rep. James J. Florio, Chairman, House Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to RCED-85-75, March 26, 1985, Accession Number 126837; RCED-86-65FS, December 27, 1985, Accession Number 128973; RCED-85-3, December 28, 1984, Accession Number 125938; and RCED-85-69, March 29, 1985, Accession Number 126612.

Issue Area: Environment: Assessing EPA's Cleanup of the Worst Abandoned Hazardous Waste Sites (6803).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *House* Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; *Senate* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *Senate* Committee on Environment and Public Works; *Rep.* James J. Florio.

Authority: Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

Abstract: In response to a congressional request, GAO reviewed cleanup activities at priority hazardous waste sites, specifically: (1) the number, estimated value, and purpose of settlement agreements between the Environmental Protection Agency (EPA) and responsible parties; and (2) how well EPA is overseeing responsible-party compliance with the settlement terms.

Findings/Conclusions: GAO found that: (1) approximately half of the settlements were for long-term site cleanup activities, and cleanup work was valued at $417 million; (2) the purpose of the settlement agreements was to ensure that responsible parties either performed cleanup activities at hazardous waste sites or reimbursed the government for cleanup at the sites; and (3) no formal guidelines or procedures exist for project managers to oversee settlement activities and enforce decisions, causing

delays in identifying and resolving problems.
Recommendation To Agencies: To adequately ensure that responsible parties comply with settlement conditions and cleanup goals, the Administrator, EPA, should strengthen the EPA settlement oversight function by providing project managers with: (1) guidance and procedures on work-load management, how to organize, prioritize, and perform duties and responsibilities, and how to use quality assurance reviews; and (2) procedures and standards for oversight recordkeeping and reporting, determining settlement noncompliance, and taking appropriate enforcement actions.

130087

Department of Energy's Transuranic Waste Disposal Plan Needs Revision. RCED-86-90; B-221801. March 21, 1986.
Released June 4, 1986. 36 pp. *Report* to Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to RCED-86-61, December 31, 1985, Accession Number 128807; T-RCED-87-7, March 17, 1987, Accession Number 132405; RCED-87-153, July 27, 1987, Accession Number 133794; T-RCED-87-12, March 25, 1987, Accession Number 132484; T-RCED-87-4, March 12, 1987, Accession Number 132384; T-RCED-88-30, March 31, 1988, Accession Number 135455; and RCED-88-130, March 28, 1988, Accession Number 135666.

Issue Area: Energy: Other Issue Area Work (6491).
Contact: Resources, Community, and Economic Development Division.
Budget Function: National Defense: Atomic Energy Defense Activities (053.0).
Organization Concerned: Department of Energy.
Congressional Relevance: *House* Committee on Appropriations: Energy and Water Development Subcommittee; *House* Committee on Science and Technology; *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *Senate* Committee on Energy and Natural Resources: Energy Research and Development Subcommittee; *Senate* Committee on Appropriations: Energy and Water Development Subcommittee; *Rep.* Michael L. Synar.
Authority: Department of Energy, National Security and Military Applications of Nuclear Energy Authorization Act, 1980 (P.L. 96-164). Department of Energy, National Security and Military Applications of Nuclear Energy Authorization Act, 1982 (P.L. 97-90). Environmental Policy Act of 1969 (National) (P.L. 91-190). 10 C.F.R. 61.55.
Abstract: Pursuant to a congressional request, GAO reviewed certain aspects of the Department of Energy's (DOE) Transuranic (TRU) Waste Disposal and Defense Waste Management Plan to determine: (1) whether the plan covers the permanent disposal of all TRU waste; (2) whether the plan identifies all costs for the permanent disposal of TRU waste; and (3) the status of DOE efforts to resolve environmental and safety issues related to the permanent disposal of TRU waste.
Findings/Conclusions: TRU waste consists of discarded materials contaminated with manmade radioactive elements that can be dangerous if inhaled or ingested and can remain radioactive for thousands of years. DOE generates TRU waste from its defense weapons production, research, development, and testing activities. Prior to 1970, DOE buried TRU waste in shallow pits; however, it determined that TRU waste should be stored at six facilities until there was a safe, permanent disposal method, and Congress required DOE to set a plan for the permanent disposal of TRU waste. GAO found that the plan does not: (1) explain the DOE position concerning the permanent disposal of pre-1970 buried waste and is silent concerning contaminated soil; (2) disclose that some TRU waste, such as large equipment, may not meet its disposal facility's disposal criteria; (3) include costs for disposing of buried waste, contaminated soil, and waste not acceptable to the disposal facility; and (4) provide details on environmental and safety issues or discuss the types of or timing for environmental analyses needed before operations begin. DOE has begun efforts to resolve TRU waste environmental and safety issues to comply with National Environmental Policy Act requirements and continues to assess: (1) its facilities' structural integrity; (2) the safe transportation of TRU waste; and (3) the safe disposal of buried waste and contaminated soil.
Recommendation To Agencies: The Secretary of Energy should revise the plan and submit it to all legislative, authorization, appropriations, and oversight committees to include: (1) specific plans for the permanent disposal of buried waste, contaminated soil, and difficult-to-certify waste; (2) cost estimates for the permanent disposal of TRU waste, including the options for buried waste, contaminated soil, and difficult-to-certify waste, processing and certifying newly generated TRU waste, decontamination and decommissioning of TRU waste processing facilities, and interim operations; and (3) specific and detailed discussions of environmental and safety issues for the permanent disposal of TRU waste.

130151

Hazardous Waste: Federal Civil Agencies Slow to Comply With Regulatory Requirements. RCED-86-76; B-221403. May 6, 1986. 61 pp. plus 1 appendix (1 p.). *Report* to Rep. James J. Florio, Chairman, House Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to RCED-86-51FS, November 29, 1985, Accession Number 128653; RCED-86-61, December 13, 1985, Accession Number 128807; RCED-83-241, September 21, 1983, Accession Number 122523; RCED-84-7, June 22, 1984, Accession Number 124659; T-RCED-88-24, March 10, 1988, Accession Number 135246; and RCED-88-140, June 8, 1988, Accession Number 136112.

Issue Area: Environment: Assessing EPA's Efforts To Protect Public Health and the Environment by Controlling Hazardous Waste From Generation To Disposal (6802).
Contact: Resources, Community, and Economic Development Division.
Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).
Organization Concerned: Environmental Protection Agency; Government-Wide.
Congressional Relevance: *House* Committee on Government Operations; *House* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *House* Committee on Energy and Commerce; *House* Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; *Senate* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *Senate* Committee on Environment and Public Works; *Rep.* James J. Florio.
Authority: Resource Conservation and Recovery Act of 1976. Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Atomic Energy

Act of 1954 (42 U.S.C. 2011). Executive Order 12088. Executive Order 12146.

Abstract: Pursuant to a congressional request, GAO reported on 17 federal civilian agencies' implementation of Resource Conservation and Recovery Act (RCRA) provisions, specifically whether: (1) agencies are identifying and reporting their hazardous waste handlers to the Environmental Protection Agency (EPA) and the states; (2) EPA and the states are inspecting federal facilities to ensure that handlers are complying with RCRA requirements; (3) handlers are complying with RCRA regulations; and (4) enforcement actions are compelling agencies to correct problems.

Findings/Conclusions: GAO found that: (1) the agencies identified 247 waste handlers and were confident that they had identified the most significant waste handlers and reported them to EPA or the states; (2) several agencies estimated that numerous facilities need evaluation; (3) agencies had inspected all of the major treatment, storage, and disposal handlers at least once; (4) many of the handlers had violated RCRA requirements; (5) over half of the facilities cited for violations were not in compliance with RCRA requirements 6 months to 3 years later due to limited agency knowledge of the requirements and lack of agency emphasis on RCRA; (6) in the past year, agencies have increased their emphasis on RCRA programs; and (7) EPA plans to expand its inspection coverage of hazardous waste handlers, provide federal agencies with more information on RCRA requirements, work closer with agencies on the program, and revise its compliance strategy to incorporate specific time frames for issuing compliance orders.

Recommendation To Agencies: The Administrator, EPA, should ensure that the federal agency environmental compliance strategy includes specific time frames for elevating unresolved problems to EPA headquarters, and is completed on schedule. The Administrator, EPA, should increase monitoring of handler identification programs. Such monitoring should include, but not be limited to, periodic reviews or assessments of agency progress in identifying handlers. Where deficiencies are found, the Administrator should work with agency heads to implement needed improvements.

130205

Nonagricultural Pesticides: Risks and Regulation. RCED-86-97; B-203051. April 18, 1986.

Released May 19, 1986. 52 pp. plus 6 appendices (8 pp.). *Report* to Sen. David Durenberger, Chairman, Senate Committee on Environment and Public Works: Toxic Substances and Environmental Oversight Subcommittee; Sen. Max S. Baucus, Ranking Minority Member, Senate Committee on Environment and Public Works: Toxic Substances and Environmental Oversight Subcommittee; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division.

Issue Area: Environment: Evaluation of the Federal Pesticide Regulatory Process' Capability To Protect Public Health and the Environment From Unreasonable Risks (6806); Health Delivery and Quality of Care: Effectiveness of FDA in Monitoring the Marketplace, Detecting Violations, Ensuring Compliance, and Coordinating With Other Agencies (5205).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency; Federal Trade Commission.

Congressional Relevance: *House* Committee on Appropriations: Agriculture, Rural Development, and Related Agencies Subcommittee; *House* Committee on Agriculture; *Senate* Committee on Environment and Public Works; *Senate* Committee on Appropriations: Agriculture and Related Agencies Subcommittee; *Senate* Committee on Agriculture, Nutrition, and Forestry; *Senate* Committee on Environment and Public Works: Toxic Substances and Environmental Oversight Subcommittee; Congress; *Sen.* Max S. Baucus; *Sen.* David Durenberger.

Authority: Insecticide, Fungicide and Rodenticide Act (P.L. 80-104). Trade Commission Act. 49 Fed. Reg. 42892. P.L. 92-516.

Abstract: In response to congressional requests, GAO reported on the Environmental Protection Agency's (EPA) efforts to determine the: (1) risks associated with the use of nonagricultural pesticides; (2) extent of public information concerning such risks; and (3) requirements for professional pesticide applicators to protect the public from misuse.

Findings/Conclusions: The chronic health risks associated with nonagricultural pesticides are uncertain because EPA has not reassessed them in accordance with current standards. GAO found that EPA: (1) as of September 30, 1985, had done preliminary assessments on 18 of the 50 chemicals and found that, for 17, it did not have enough chronic toxicity data to complete the assessments; and (2) does not plan to require chronic toxicity testing of all nonagricultural chemicals because it believes that exposure to some pesticides is not significant enough to cause chronic effects in humans, regardless of their toxicity. Environmental groups believe that pesticide labels should state that chronic health risks have not been fully assessed, so that the public can make better choices about pesticide use. However, industry representatives oppose public disclosure because they fear adverse effects on the industry. The Insecticide, Fungicide, and Rodenticide Act authorizes EPA to take enforcement action against pesticide manufacturers' claims that pesticides are safe, but EPA has taken few such actions. The Federal Trade Commission (FTC), under its authorizing legislation, can act against distributor and applicator claims, but FTC believes that EPA is better able to handle such claims, because of its expertise and specific legislative authority.

Recommendation To Congress: Because it may be several decades before EPA assesses the chronic health risks of nonagricultural pesticides, Congress may wish to consider whether pesticide labels should state that EPA has not assessed the pesticides' chronic health risks in accordance with current standards. Congress may wish to consider whether: (1) the public should be notified when public places are treated with pesticides; and (2) the federal government should have a role in ensuring that the public is notified.

Recommendation To Agencies: If the Administrator, EPA, does not have the resources to act against unacceptable safety claims by pesticide distributors, he should inform Congress, so it can decide whether to authorize additional resources, or grant EPA relief from this enforcement responsibility. The Administrator, EPA, should seek an arrangement between EPA and FTC for controlling unacceptable safety claims by professional pesticide applicators. If additional resources are needed, Congress should be so informed. The Administrator, EPA, should: (1) encourage states that do not have unrestricted pesticide applicator control programs to institute such programs; and (2) develop a model pesticide applicator control program for voluntary use by the states.

130222

Air Pollution: Improvements Needed in Developing and Managing EPA's Air Quality Models. RCED-86-94; B-220184. April 22, 1986.

Released June 18, 1986. 30 pp. plus 2 appendices (2 pp.). *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to RCED-85-129, August 16, 1985, Accession Number 127916; RCED-88-57, January 22, 1988, Accession Number 135212; and RCED-88-192, August 24, 1988, Accession Number 136892.

Issue Area: Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Rep.* John D. Dingell.

Authority: Clean Air Act (42 U.S.C. 7401 et seq.). Federal Grant and Cooperative Agreement Act of 1977. Freedom of Information Act. Clean Air Act Amendments of 1977. S. 3041 (99th Cong.).

Abstract: In response to a congressional request, GAO reported on the Environmental Protection Agency's (EPA) use of air quality models in carrying out the requirements of the Clean Air Act, specifically: (1) the accuracy, adequacy, and cost of the models; (2) the problems and limitations arising from uncertainties associated with the models; and (3) the appropriateness of an agreement between EPA and its contractor for developing a utility-sector air quality analysis model.

Findings/Conclusions: GAO noted that: (1) EPA is currently evaluating the accuracy of its air quality models and modifications to reduce the level of uncertainty; (2) EPA needs to develop more refined models to fully implement and monitor the air pollution programs under the act; (3) more refined models are more costly; and (4) EPA entered into a cooperative agreement, which does not require delivery of a product, rather than a contract, to obtain a utility-sector model. GAO found that: (1) EPA models overestimated pollutant concentrations, resulting in industry spending millions of dollars on unnecessary pollution control equipment, replacement fuel, and studies to justify increased emissions; (2) EPA does not have the number of models it needs to properly administer the act's requirements; (3) the costs of developing a model range from $50,000 to several million dollars; and (4) a new utility-sector analysis model that was approved for development in 1980, and was expected to be completed in 1983, has not yet been developed.

Recommendation To Agencies: The Administrator, EPA, should implement a policy that provides guidance on what procurement mechanism should be used in various situations. The guidance should include the stipulation that, to the extent possible, contracts, rather than cooperative agreements, be used to obtain new computer models.

130224

Air Pollution: Sulfur Dioxide Emissions From Nonferrous Smelters Have Been Reduced. RCED-86-91; B-222220. April 29, 1986.

Released June 18, 1986. 31 pp. plus 2 appendices (9 pp.). *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division.

Issue Area: Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Rep.* John D. Dingell.

Authority: Clean Air Act. Clean Air Act Amendments of 1970. Clean Air Act Amendments of 1977. Kennecott Corp. v. Environmental Protection Agency, 684 F.2d 1007 (D.C. Cir. 1982).

Abstract: Pursuant to a congressional request, GAO reviewed the Environmental Protection Agency's (EPA) and states' implementation of the Clean Air Act's provisions concerning copper, zinc, and lead smelters' sulphur dioxide emissions, including: (1) EPA measures to determine smelter compliance with the act and actions it took to enforce such compliance; and (2) factors EPA considered in exempting smelters from certain requirements of the act.

Findings/Conclusions: GAO found that EPA and states have been effective in getting smelters to reduce emissions and national ambient air quality standard violations. The 1984 levels for both sulphur dioxide emissions and standards violations have been reduced at least 75 percent from the levels in the mid-1970's, even though 50 percent of the reductions were attributable to decreased production. Although EPA and the states have used different enforcement strategies, each has been successful in achieving compliance. EPA has issued consent decrees with compliance schedules and fixed fines for violations, while states have taken enforcement actions without imposing fines. Congress gave smelters the opportunity to defer compliance with emission limitations and installation of expensive constant controls through nonferrous smelter orders, whereby smelters could continue to operate emission dispersion techniques, but were still expected to maintain air quality standards. Although some smelters operating under first-period orders have violated air quality standards, EPA allows those smelters the opportunity to improve their intermittent control systems while deciding whether to award second-period orders. EPA is evaluating whether the smelters have provided an adequate basis to ensure that the national standards will not be violated during the second period.

130236

Air Quality Standards: The Role of the Health Effects Institute in Conducting Research. RCED-86-177BR; B-223275. June 16, 1986. 37 pp. plus 4 appendices (7 pp.). *Briefing Report* to Rep. Edward P. Boland, Chairman, House Committee on Appropriations: HUD-Independent Agencies Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division.

Issue Area: Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency; Health Effects Institute.

Congressional Relevance: *House* Committee on Appropriations: HUD-

Independent Agencies Subcommittee; *Rep.* Edward P. Boland.
Authority: Clean Air Act.
Abstract: In response to a congressional request, GAO provided information on the Health Effects Institute's (HEI) scientific research on the effects of motor vehicle emissions on human health, specifically: (1) the adequacy of HEI organizational structure and internal controls; (2) the quality, credibility, and relevance of its research; (3) HEI success in reducing adversarial disputes over technical issues and scientific data; and (4) the cost-effectiveness of its research activities. Findings/Conclusions: The Environmental Protection Agency (EPA) and 24 automobile and engine manufacturers cofund HEI, which is a nonprofit corporation organized to provide unbiased, independent research on motor vehicle emissions hazards. GAO found that: (1) HEI has 49 research projects underway at an estimated cost of $15 million, has completed 4 of the projects, and will probably issue reports on 28 more by late 1986; (2) EPA and industry officials feel that HEI products are credible, of high quality, and objective; (3) EPA obtains $2 of research activity for each federal dollar provided; (4) EPA considers at least 44 percent of HEI research to be highly relevant to current regulatory and public policy issues; and (5) if funding is continued, more open dialogue between EPA and HEI could help to ensure that the number of mutually agreed-upon, relevant research projects increases. GAO believes that HEI is performing high quality research and found nothing to indicate that funding should not continue.

130260

Nuclear Safety: Safety Analysis Reviews for DOE's Defense Facilities Can Be Improved. RCED-86-175; B-222195. June 16, 1986. Released June 17, 1986. 5 pp. plus 2 appendices (20 pp.). *Report* to Sen. John H. Glenn, Ranking Minority Member, Senate Committee on Governmental Affairs: Energy, Nuclear Proliferation and Government Processes Subcommittee; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to EMD-81-108, August 4, 1981, Accession Number 115979; RCED-84-50, November 30, 1983, Accession Number 123131; RCED-86-192, September 8, 1986, Accession Number 131121; RCED-87-124, June 2, 1987, Accession Number 133093; T-RCED-88-6, October 22, 1987, Accession Number 134218; T-RCED-87-32, June 16, 1987, Accession Number 133223; RCED-87-93, April 14, 1987, Accession Number 132869; T-RCED-87-12, March 25, 1987, Accession Number 132484; T-RCED-87-4, March 12, 1987, Accession Number 132384; T-RCED-88-30, March 31, 1988, Accession Number 135455; RCED-88-130, March 28, 1988, Accession Number 135666; and T-RCED-88-61, August 23, 1988, Accession Number 136742.

Issue Area: Energy: Other Issue Area Work (6491).
Contact: Resources, Community, and Economic Development Division.
Budget Function: National Defense: Atomic Energy Defense Activities (053.0).
Organization Concerned: Department of Energy; Nuclear Regulatory Commission.
Congressional Relevance: *House* Committee on Appropriations: Energy and Water Development Subcommittee; *House* Committee on Science and Technology; *Senate* Committee on Commerce, Science and Transportation; *Senate* Committee on Appropriations: Energy and Water Development Subcommittee; *Senate* Committee on Governmental Affairs: Energy, Nuclear Proliferation and Government Processes Subcommittee; *Sen.* John H. Glenn.
Authority: DOE Order 5481.1A. DOE Order 6430.1.
Abstract: Pursuant to a congressional request, GAO reported on the adequacy of the Department of Energy's (DOE) safety analysis reviews for its existing nuclear defense facilities. GAO examined eight facilities to determine the effectiveness of DOE efforts to protect workers and the environment. Findings/Conclusions: GAO found that: (1) DOE did not approve the reviews for three of the eight facilities, each of which had the potential for significant on-site or off-site releases of radioactive material in a major accident; (2) the reviews' safety design criteria varied considerably between the facilities; (3) the reviews used different approaches to identify and analyze potential accidents at DOE facilities, with some approaches being more comprehensive than others; and (4) DOE reviewed and approved the reviews internally, which precluded an independent review process. Recommendation To Agencies: The Secretary of Energy should complete and approve safety analysis reviews for all high-hazard facilities in a timely fashion. The Secretary of Energy should require that safety analysis reviews include a detailed comparison of the plant against current DOE design criteria, highlighting and explaining any deviations. The Secretary of Energy should develop more consistent requirements to be followed in preparing reviews, outlining appropriate methodologies and assumptions to be used in analyzing accidents and their consequences. The Secretary of Energy should establish an arrangement with an outside independent organization to review those safety analysis reviews for the most hazardous facilities. This could be accomplished either by establishing a working arrangement with the Nuclear Regulatory Commission (NRC) or an independent review panel.

130304

Air Pollution: Hazards of Indoor Radon Could Pose a National Health Problem. RCED-86-170; B-223233. June 30, 1986. 49 pp. plus 2 appendices (4 pp.). *Report* to Rep. Thomas M. Edgar; Rep. Thomas M. Foglietta; Rep. George W. Gekas; Rep. Joe Kolter; Rep. William F. Goodling; Rep. William F. Gray, III; Rep. Paul E. Kanjorski; Rep. Peter H. Kostmayer; Rep. Austin J. Murphy; Rep. Thomas J. Ridge; Rep. Don Ritter; Rep. Bud Shuster; Rep. Richard T. Schulze; Rep. Doug Walgren; Rep. Robert S. Walker; Rep. Joseph M. Gaydos; Rep. Gus Yatron; Rep. John P. Murtha; Rep. Joseph M. McDade; Rep. Lawrence Coughlin; Rep. Robert A. Borski; Rep. William F. Clinger, Jr.; Rep. William J. Coyne; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to CED-80-111, September 24, 1980, Accession Number 113396; HRD-80-25, December 4, 1979, Accession Number 111041; and RCED-88-103, April 6, 1988, Accession Number 135516.

Issue Area: Environment: Other Issue Area Work (6891).
Contact: Resources, Community, and Economic Development Division.
Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).
Organization Concerned: Environmental Protection Agency; Department of Energy; Public Health Service: Centers for Disease Control.
Congressional Relevance: *Rep.* Peter H. Kostmayer; *Rep.* Paul E. Kanjorski; *Rep.* William H. Gray, III; *Rep.* Austin J. Murphy; *Rep.* William J. Coyne; *Rep.* William F. Clinger, Jr.; *Rep.* Robert A. Borski; *Rep.* Lawrence Coughlin; *Rep.* Joseph M. McDade; *Rep.* John P. Murtha; *Rep.* Gus Yatron; *Rep.* Joseph M. Gaydos; *Rep.* Robert S. Walker; *Rep.* Doug Walgren; *Rep.* Richard T. Schulze;

Rep. Bud Shuster; *Rep.* Don Ritter; *Rep.* Thomas J. Ridge; *Rep.* William F. Goodling; *Rep.* Joe Kolter; *Rep.* George W. Gekas; *Rep.* Thomas M. Foglietta; *Rep.* Thomas M. Edgar.

Authority: Clean Air Act. Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Disaster Relief Act. Atomic Energy Act of 1954. Energy Reorganization Act of 1974. Nonnuclear Energy Research and Development Act of 1974.

Abstract: GAO provided information on the public's exposure to and the health effects of radon gas, cost and alternatives for reducing indoor radon levels, and federal efforts and statutory authorities and responsibilities to address indoor radon problems.

Findings/Conclusions: GAO found that: (1) the incidence of lung cancer is higher among underground miners exposed to high levels of radon; (2) the Environmental Protection Agency (EPA) and the Centers for Disease Control believe exposure to radon increases the risk of lung cancer; (3) EPA expects to have results by 1989 from a national survey on the extent of radon exposure; (4) EPA is studying three techniques designed to reduce radon levels; (5) the cost per home to reduce radon levels ranges from $4,300 to $15,700; (6) EPA and the Department of Energy are conducting research on strategies for addressing radon issues; (7) federal agencies differ on the level of radon at which homeowners should take corrective action; (8) EPA does not have the statutory authority to regulate indoor air pollutants; and (9) other federal laws that provide for cleanup and assistance in the event of natural disasters do not assign responsibility for naturally occurring indoor radon hazards.

130424

Vehicle Emissions: EPA Response to Questions on Its Inspection and Maintenance Program. RCED-86-129BR; B-222829. May 2, 1986. Released July 3, 1986. 89 pp. *Briefing Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-85-22, January 16, 1985, Accession Number 126226; and RCED-88-40, January 26, 1988, Accession Number 134947.

Issue Area: Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Rep.* John D. Dingell.

Authority: Clean Air Act. Clean Air Act Amendments of 1977. P.L. 98-45. P.L. 98-371. H.R. 128 (99th Cong.). H.R. 129 (99th Cong.).

Abstract: Pursuant to a congressional request, GAO evaluated and commented on the Environmental Protection Agency's (EPA) responses to congressional questions on its vehicle emissions inspection and maintenance (I/M) program, to: (1) determine whether the responses adequately addressed the 58 specific questions raised; and (2) test, to the extent possible, the adequacy and reasonableness of the responses.

Findings/Conclusions: GAO found that some of the conditions identified in an earlier report continued to exist and it identified some new concerns, including that: (1) 12 of the 44 areas of the country required to implement the I/M program did not have EPA-approved state implementation plans showing how they would attain air quality standards by 1987; (2) 26 areas not initially required to implement an I/M program had inadequate state implementation plans; (3) although measurable levels of carbon monoxide have declined, ozone levels have increased and continue to be a pervasive pollution problem; (4) 21 to 56 percent of 1981 and later model-year vehicles could be expected to have serious malfunctions in emission control systems; (5) EPA approval of I/M programs using window stickers rather than annual vehicle re-registrations weakened program effectiveness; (6) many programs continued to experience serious problems, such as lack of quality assurance in testing equipment, and inspection and data reporting errors; (7) some states were not cooperating with EPA to implement changes in their I/M programs to make them more effective; (8) although EPA can use sanctions against any state failing to implement a program, it has only used them sparingly; (9) no follow-up or monitoring of problems have been identified in audits; and (10) the cost to repair new-technology vehicles not passing an I/M test may be substantially greater than existing repair cost limits, which could make vehicles eligible for program waiver and exclude them from further tests.

130447

Financial Consequences of a Nuclear Power Plant Accident. RCED-86-193BR; B-223582. July 16, 1986. 31 pp. *Briefing Report* to Sen. George J. Mitchell; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to RCED-85-11, June 19, 1985, Accession Number 127238.

Issue Area: Energy: Other Issue Area Work (6491).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).

Organization Concerned: Nuclear Regulatory Commission.

Congressional Relevance: *Sen.* George J. Mitchell.

Authority: Price-Anderson Act (Atomic Energy Damages). Atomic Energy Act of 1954. H.R. 3653 (99th Cong.). S. 1225 (99th Cong.).

Abstract: Pursuant to a congressional request, GAO provided information on: (1) the dollar consequences of off-site damages to persons and property that might result from a catastrophic nuclear power plant accident; and (2) the limit that Congress should set on the liability for accident damages.

Findings/Conclusions: GAO found that: (1) the financial consequences of a catastrophic accident could range up to $15 billion, while the financial consequences of a severe accident could range up to $220 million; (2) plant size, population density, and land use patterns determine where each plant falls within the range of consequences; (3) property damages represent 76 to 90 percent of the total potential consequences; and (4) the consequences of a catastrophic accident under severe weather conditions could be up to approximately 10 times greater than under average conditions. Under the Price-Anderson Act, the existing liability limit is $665 million and would cover only 4 percent of the plants. The Senate has proposed legislation that would increase this limit to $2.5 billion, which would cover 64 percent of the plants, and the House has proposed a limit of $6.5 billion, which would cover 95 percent. However, if severe weather conditions are considered in estimating the financial consequences, even these limits might not cover the majority of the plants.

130493

[Demilitarization of the Chemical Munitions Stockpile]. July 25, 1986. 8 pp. *Testimony* before the House Committee on Armed Services: Investigations Subcommittee; by Henry W. Connor, Senior Associate Director, National Security and International Affairs Division.

Contact: National Security and International Affairs Division.
Organization Concerned: Department of the Army; Department of Energy: Operations Center, Oak Ridge, TN.
Congressional Relevance: *House* Committee on Armed Services: Investigations Subcommittee.
Authority: Department of Defense Authorization Act, 1986 (P.L. 99-145). Environmental Policy Act of 1969 (National).
Abstract: In response to a congressional request, GAO reviewed the Army's decisionmaking process and its preliminary cost estimates in its draft environmental impact statement evaluating methods for destroying its stockpile of old and hazardous chemical munitions, including: (1) on-site disposal at each of the existing storage installations; (2) transportation to two regional disposal centers; and (3) transportation to a national disposal center. GAO noted that the Army's preferred method is to build demilitarization facilities at each of its eight storage locations. GAO found that: (1) the Army followed prescribed regulations in preparing its draft environmental impact statement; (2) those agencies with jurisdiction or specific expertise in environmental policy agreed with GAO findings; (3) the Army evaluated the three alternatives equally; (4) the cost estimates were not biased towards the selection of a particular alternative; and (5) the Army has not yet decided on the means for destroying the stockpile.

130520

Energy Regulation: Hydropower Impacts on Fish Should Be Adequately Considered. RCED-86-99; B-222655. May 20, 1986.
Released July 22, 1986. 26 pp. *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division.

Issue Area: Energy: Other Issue Area Work (6491).
Contact: Resources, Community, and Economic Development Division.
Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).
Organization Concerned: Federal Energy Regulatory Commission.
Congressional Relevance: *House* Committee on Appropriations: Energy and Water Development Subcommittee; *House* Committee on Energy and Commerce; *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Senate* Committee on Appropriations: Energy and Water Development Subcommittee; *Senate* Committee on Energy and Natural Resources; *Rep.* John D. Dingell.
Authority: Department of Energy Organization Act. Federal Power Act. Public Utility Regulatory Policies Act of 1978. Energy Security Act. Crude Oil Windfall Profit Tax Act of 1980. Fish and Wildlife Coordination Act.
Abstract: Pursuant to a congressional request, GAO reviewed: (1) the adequacy of the 30-day period that agencies are given to request a hearing after the Federal Energy Regulatory Commission (FERC) issues an order authorizing the construction and operation of a hydroelectric project; and (2) the FERC role in determining whether fish-protection measures are working properly.
Findings/Conclusions: GAO found that: (1) federal and state fish and wildlife officials often did not receive FERC orders until 2 weeks after issuance; (2) when these delays occurred, officials selectively responded to the projects with the largest impacts and interrupted their operations to prepare timely requests for hearings; (3) about one-third of the 30-day period is used for printing, distribution, and mailing processes; and (4) although the Federal Power Act (FPA) allows FERC 30 days to respond to the construction of a hydroelectric project, FERC could increase available response time by reducing processing and mailing time. GAO also found that: (1) FERC inspectors do not have the expertise to determine how well fish-protection measures were working; and (2) although FERC relies on state agencies to perform this function, it does not have formal working agreements with state agencies and, therefore, it is difficult to determine the extent to which fish protection measures are working.
Recommendation To Agencies: To ensure that federal and state fish and wildlife agencies in the Northwest have sufficient time to review and respond to FERC orders on hydroelectric projects, the Chairman, FERC, should have the Director, Office of Hydropower Licensing, implement alternatives which would allow interested parties more time within the 30-day period. Such alternatives might include: (1) expediting the processing and mailing of orders impacting the Northwest; (2) accepting a rehearing request if postmarked within 30 days of issuance; and (3) designating its Portland, Oregon office as the official receiving point for such requests. To fulfill its responsibilities under FPA for protecting fish, the Chairman, FERC, should have the Director, Office of Hydropower Licensing, enter into written working agreements with fish and wildlife agencies in those states with significant fish populations potentially impacted by hydroelectric dams. These agreements should specify: (1) to what extent FERC will rely on the agencies to ensure that fish-protection measures are working properly; and (2) how FERC and the agencies will coordinate their respective activities, including inspections and sharing reports, analyses, and other pertinent data.

130597

[GAO Work on Nuclear Waste Issue]. July 31, 1986. 6 pp. plus 1 enclosure (2 pp.). *Testimony* before the House Committee on Interior and Insular Affairs: Energy and the Environment Subcommittee; by Keith O. Fultz, Associate Director, Resources, Community, and Economic Development Division. Refers to numerous reports on the nuclear waste program.

Contact: Resources, Community, and Economic Development Division.
Organization Concerned: Department of Energy.
Congressional Relevance: *House* Committee on Interior and Insular Affairs: Energy and the Environment Subcommittee.
Authority: Nuclear Waste Policy Act of 1982.
Abstract: In response to a congressional request, GAO: (1) provided an overview of its work on the nuclear waste issue; and (2) testified on relations between the Department of Energy (DOE), states, and Indian tribes regarding the waste program. In its previous reports, GAO determined that the DOE: (1) plan for constructing a monitored retrievable storage facility could hinder the repository program's progress because of limited technical staff and financial resources; (2) siting approach interpreting the Nuclear Waste Policy Act as requiring only one suitable site would jeopardize the first-repository program's success; and (3) guidelines for financial assistance were not clear

because they did not cover all funding circumstances. GAO noted that DOE officials acknowledged that they were slow to involve states and tribes in the first-repository program, but stated that they had taken substantial steps to react to state comments and to allow more state and tribal participation in the program.

130648

Nuclear Waste: Impact of Savannah River Plant's Radioactive Waste Management Practices. RCED-86-143; B-202377. July 29, 1986.

Released August 5, 1986. 7 pp. plus 6 appendices (52 pp.). *Report* to Sen. Ernest F. Hollings; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to RCED-87-48FS, November 5, 1986, Accession Number 131594; and T-RCED-87-7, March 17, 1987, Accession Number 132405.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404).

Contact: Resources, Community, and Economic Development Division.

Budget Function: National Defense: Atomic Energy Defense Activities (053.0).

Organization Concerned: Department of Energy: Savannah Nuclear Power Station.

Congressional Relevance: *Sen.* Ernest F. Hollings.

Abstract: In response to a congressional request, GAO reviewed radioactive waste management practices at the Department of Energy's (DOE) Savannah River Plant (SRP) to determine if these practices had adverse environmental impacts.

Findings/Conclusions: GAO noted that SRP: (1) primarily produces plutonium, tritium, and other special nuclear materials for national defense; (2) generates radioactive airborne, liquid, and solid waste during its operations, some of which it disposes of by shallow land burial or by controlled releases into the atmosphere and surface streams; and (3) stores a large part of its radioactive waste in interim storage while awaiting completion of permanent offsite disposal facilities. GAO found that: (1) radioactive releases from SRP operations have very little impact outside the plant's boundaries; (2) within the plant, some of the surface streams contain elevated radioactivity levels and the soil and groundwater at several waste storage and disposal sites have high levels of radioactivity; (3) there is a remote possibility that some of this contamination could reach the deep Tuscaloosa aquifer, although the concentration of radioactivity would be very low by the time it discharged into the Savannah River; and (4) DOE may have to maintain long-term institutional control over the waste storage and disposal sites because of contamination. SRP has taken several actions to reduce radioactive releases into the environment, including: (1) transferring extremely hazardous high-level waste to safer storage tanks; (2) preparing for the permanent disposal of high-level and transuranic waste in offsite repositories; (3) changing certain low-level waste disposal practices; (4) evaluating new low-level disposal methods; and (5) modifying its tritium production facilities.

130662

Nuclear Safety: Comparison of DOE's Hanford N-Reactor With the Chernobyl Reactor. RCED-86-213BR; B-223754. August 5, 1986. 62 pp. *Briefing Report* to Sen. Mark O. Hatfield, Chairman, Senate Committee on Appropriations; Rep. James H. Weaver, Chairman, House Committee on Interior and Insular Affairs: General Oversight, Northwest Power, and Forest Management Subcommittee; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to EMD-78-110, March 30, 1979, Accession Number 108990; EMD-81-108, August 4, 1981, Accession Number 115979; RCED-84-50, November 30, 1983, Accession Number 123131; RCED-88-8, November 13, 1987, Accession Number 134670; RCED-87-93, April 14, 1987, Accession Number 132869; and T-RCED-87-4, March 12, 1987, Accession Number 132384.

Issue Area: Energy: Other Issue Area Work (6491).

Contact: Resources, Community, and Economic Development Division.

Budget Function: National Defense: Atomic Energy Defense Activities (053.0); Energy: Energy Supply (271.0).

Organization Concerned: Department of Energy: Operations Center, Richland, WA.

Congressional Relevance: *House* Committee on Interior and Insular Affairs: General Oversight, Northwest Power, and Forest Management Subcommittee; *Senate* Committee on Appropriations; *Rep.* James H. Weaver; *Sen.* Mark O. Hatfield.

Abstract: Pursuant to a congressional request, GAO provided information on: (1) the similarities and differences in design and safety features of the Department of Energy's (DOE) N-Reactor and the Soviet Union's Chernobyl nuclear reactor; (2) the DOE program to extend the life of N-Reactor; and (3) emergency preparedness plans for N-Reactor.

Findings/Conclusions: GAO found that many differences exist between N-Reactor and the Chernobyl reactor, namely: (1) they have different inherent physical responses to increases in coolant temperature; (2) N-Reactor has safety systems that the Chernobyl reactor does not have; (3) N-Reactor uses a metal form of uranium fuel and the Chernobyl reactor uses an oxide form of uranium fuel; (4) N-Reactor uses once-through emergency cooling and the Chernobyl reactor uses a recirculating emergency cooling system; and (5) N-Reactor uses a reactor confinement system to control steam pressures and the release of radioactive materials during an accident and the Chernobyl reactor uses a containment system. GAO also found that: (1) it would cost approximately $1.2 billion to upgrade N-Reactor for safe operation; (2) DOE has complied with 7 of 10 GAO emergency preparedness recommendations; and (3) DOE and state and local officials must jointly participate in N-Reactor site-wide emergency drills.

130673

Hazardous Waste: EPA's Consideration of Permanent Cleanup Remedies. RCED-86-178BR; B-223489. July 7, 1986.

Released August 6, 1986. 33 pp. *Briefing Report* to Rep. James J. Florio, Chairman, House Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-88-2, October 16, 1987, Accession Number 134208; and RCED-88-69, February 24, 1988, Accession Number 135367.

Issue Area: Environment: Assessing EPA's Cleanup of the Worst Abandoned Hazardous Waste Sites (6803).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; *Rep.* James J. Florio.

Authority: Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

Abstract: In response to a congressional request, GAO: (1) reported on the extent to which the Environmental Protection Agency (EPA) has considered the use of treatment technologies that permanently destroy or detoxify wastes at the nation's worst hazardous waste sites; and (2) identified the barriers to the increased use of such technologies and EPA efforts to overcome them.

Findings/Conclusions: GAO found that: (1) in the first 5 years of its program to clean up hazardous waste sites, EPA selected permanent treatment technologies as remedies in 27 of the 121 targeted areas; (2) EPA did not choose these methods more often because it considered them too costly or ineffective; (3) EPA selected permanent treatment technologies more frequently each year the program operated, due to a revised cleanup policy in 1983 which encouraged more use of permanent treatments over land-based disposal options; (4) lengthy permitting procedures, which are required to ensure the safety and reliability of the new technologies, and community resistance are two of the barriers slowing EPA implementation of the permanent treatments; and (5) EPA has established a program to demonstrate and evaluate selected technologies to provide cost-effectiveness information and to enhance the development, demonstration, and commercial availability of innovative technologies as alternatives to the containment systems now in use.

130677

Nuclear Waste: Issues Concerning DOE's Postponement of Second Repository Siting Activities. RCED-86-200FS; B-202377. July 30, 1986. Released August 12, 1986. 21 pp. *Fact Sheet* to Rep. Gerry Sikorski; Sen. George J. Mitchell; Rep. Edward J. Markey, Chairman, House Committee on Energy and Commerce: Energy Conservation and Power Subcommittee; by Keith O. Fultz, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-87-48FS, November 5, 1986, Accession Number 131594; and RCED-87-17, April 15, 1987, Accession Number 132701.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Supply (271.0).

Organization Concerned: Department of Energy.

Congressional Relevance: *House* Committee on Energy and Commerce: Energy Conservation and Power Subcommittee; *Rep.* Gerry Sikorski; *Rep.* Edward J. Markey; *Sen.* George J. Mitchell.

Authority: Nuclear Waste Policy Act of 1982.

Abstract: In response to a congressional request, GAO reported on the Department of Energy's (DOE) second nuclear waste repository program in light of its decision to indefinitely postpone all DOE site-specific work on a second repository.

Findings/Conclusions: GAO found that: (1) as the result of the postponement decision, DOE planned to curtail all second-repository site-specific activities, including financial assistance to individual states involved in the program, by the end of 1986; (2) a continued program would focus on technical issues and alternate siting strategies for a second repository, with an emphasis on cooperating with other countries on related research programs; (3) projections of the amount of defense waste for disposal in future repositories were uncertain; (4) as of May 31, 1986, the cumulative cost of the second-repository program was about $63.5 million; (5) DOE expected that a monitored retrievable storage facility would provide added flexibility to a single-repository system, and allow DOE to temporarily meet waste acceptance commitments to utilities in the event of a problem at the repository site; and (6) DOE had not initiated socioeconomic studies on tentatively identified second-repository sites at the time of the postponement decision.

130696

Nuclear Waste: Quarterly Report on DOE's Nuclear Waste Program as of June 30, 1986. RCED-86-206FS; B-202377. August 11, 1986. 22 pp. *Fact Sheet* to Sen. James A. McClure, Chairman, Senate Committee on Energy and Natural Resources; Sen. J. Bennett Johnston, Ranking Minority Member, Senate Committee on Energy and Natural Resources; by Keith O. Fultz, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-87-48FS, November 5, 1986, Accession Number 131594; and RCED-87-95FS, February 19, 1987, Accession Number 132206.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).

Organization Concerned: Department of Energy.

Congressional Relevance: *Senate* Committee on Energy and Natural Resources; *Sen.* J. Bennett Johnston; *Sen.* James A. McClure.

Authority: Balanced Budget and Emergency Deficit Control Act of 1985. Administrative Procedure Act. Nuclear Waste Policy Act of 1982 (P.L. 97-425). Safe Drinking Water Act. 10 C.F.R. 72.

Abstract: In response to a congressional request, GAO provided a status report on the Department of Energy's (DOE) implementation of its nuclear waste program for the quarter ending June 30, 1986.

Findings/Conclusions: GAO found that: (1) in April 1986, the National Academy of Sciences determined that DOE satisfactorily evaluated and ranked the first nuclear waste repository sites; (2) in May 1986, DOE issued final environmental assessments for first-repository sites and recommended other sites; (3) DOE postponed site work on a second repository because of the progress in siting the first repository and the uncertainty over when and if a second repository might be needed; and (4) the Nuclear Waste Fund obligated $40 million of $166 million in fees and investment income for program activities, and its balance as of June 30, 1986 was $1.7 billion.

130725

Office Health Hazards: Federal Activities Funded in Fiscal Years 1981-86. HRD-86-101FS; B-223321. June 13, 1986. 17 pp. *Fact Sheet* to Rep. Mary Rose Oakar; by Franklin A. Curtis, Associate Director, Human Resources Division.

Issue Area: Health Delivery and Quality of Care: Other Issue Area Work (5291).

Contact: Human Resources Division.

Budget Function: Health: Consumer and Occupational Health and Safety (554.0).

Organization Concerned: Government-Wide.

Congressional Relevance: *Rep.* Mary Rose Oakar.

Abstract: In response to a congressional request, GAO obtained information from seven federal agencies on selected office health hazard activities that they have funded since October 1980, specifically directed at: (1) indoor air pollution; (2) asbestos exposure; (3) video display terminals (VDT); and (4) job stress.
Findings/Conclusions: GAO found that the agencies reported that: (1) they spent approximately $14.2 million for office health hazard activities during fiscal years 1981 to 1986; (2) two-thirds of the obligated funds were for specific projects; and (3) projects included measuring carbon monoxide exposure in public buildings, evaluating methods for collecting formaldehyde samples in the workplace, developing methods to measure the efficiency of ventilation systems, exploring ways to reduce job stress by better VDT workstation design, and studying the effects on eye mechanisms of the interaction of VDT and normal room lighting.

130806

Chemical Emergencies: Preparedness for and Response to Accidental Chemical Air Releases. RCED-86-117BR; B-222808. June 3, 1986.

Released August 25, 1986. 62 pp. *Briefing Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division.

Issue Area: Environment: Adequacy of Federal and State Efforts To Regulate Toxic Air Pollutants (6805).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency; Federal Emergency Management Agency; Chemical Manufacturers Association; Department of Transportation; United States Coast Guard; Occupational Safety and Health Administration.

Congressional Relevance: *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Rep.* John D. Dingell.

Authority: Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (P.L. 96-510). Water Pollution Control Act. Disaster Relief Act (P.L. 93-288). Occupational Safety and Health Act of 1970 (P.L. 91-596). Toxic Substances Control Act. Hazardous Materials Transportation Act (P.L. 93-633). Executive Order 12148.

Abstract: Pursuant to a congressional request, GAO provided information on the efforts of federal, state, and local governments and the chemical industry to prepare for and respond to chemical plant emergencies, focusing on actions taken since the December 1984 chemical accident at Bhopal, India.
Findings/Conclusions: GAO found that: (1) there is no federal law requiring communities with chemical plants to develop emergency response plans; (2) under current law, the Environmental Protection Agency (EPA) carries out a lead role in chemical emergency preparedness activities; (3) EPA chairs a multiagency National Response Team (NRT) that coordinates emergency planning and information dissemination, provides technical assistance to state and local governments, and attempts to identify high-risk geographic areas; and (4) EPA administers the Chemical Emergency Response program, which is developing a list of hazardous chemicals and associated guidance, disseminating it to state and local governments, providing technical training and assistance, and monitoring and revising the list, as necessary. GAO also found that the Federal Emergency Management Agency: (1) is a member of NRT; and (2) has developed guidance documents to help state and local governments develop emergency operations plans. In addition, GAO found that: (1) the Coast Guard, the Department of Transportation, and the Occupational Safety and Health Administration all play important roles in NRT; (2) the three states it reviewed all have emergency response plans and require chemical manufacturers to publicize information regarding potential hazards of their operations; and (3) chemical industry associations have also implemented training, information, and emergency response programs, including the Community Awareness and Response program, which is intended to help communities prepare for chemical accidents.

130990

Biotechnology: Analysis of Federally Funded Research. RCED-86-187; B-223522. August 8, 1986.

Released September 11, 1986. 7 pp. plus 7 appendices (29 pp.). *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to RCED-86-39BR, October 25, 1985, Accession Number 128383; and RCED-88-27, June 13, 1988, Accession Number 136284.

Issue Area: Science and Technology Policy and Programs: Other Issue Area Work (9391).

Contact: Resources, Community, and Economic Development Division.

Budget Function: General Science, Space, and Technology: General Science and Basic Research (251.0).

Organization Concerned: Department of Agriculture: Agricultural Research Service; Environmental Protection Agency; Food and Drug Administration; National Institutes of Health; National Science Foundation; Department of Agriculture: Cooperative State Research Service.

Congressional Relevance: *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Rep.* John D. Dingell.

Authority: Agricultural Experiment Stations Act.

Abstract: In response to a congressional request, GAO analyzed data on federal support for biotechnology research in fiscal year 1985 at five federal agencies, specifically the amount of money obligated and the number of projects funded for: (1) agencywide activity for research and development; (2) biotechnology-related research; and (3) biotechnology risk assessment research. GAO also analyzed the agencies' definitions of biotechnology.
Findings/Conclusions: GAO found that: (1) each agency defined biotechnology differently; (2) the agencies undertook biotechnology research to understand biological processes and phenomena, to devise, apply, or improve products and processes, or to develop information to assess potential risks with new products and processes; and (3) a small number of the projects involved direct risk assessment. The Department of Agriculture's (USDA) Agricultural Research Service received $470 million for 2,300 research and development (R&D) projects and $24.5 million for 150 biotechnology research projects, of which between 4 and 27 were for risk assessment research. The USDA Cooperative State Research Service received $284 million for 12,250 R&D projects and $48.4 million for 750 biotechnology research projects, of which 22 were for risk assessment research. The Environmental Protection Agency received $320 million for R&D projects and $1.5 million for 19 biotechnology research projects, all of which involved

risk assessment research. The Food and Drug Administration received $82 million for R&D projects and $2.6 million for 17 biotechnology research projects, of which only 1 involved risk assessment research. The National Institutes of Health received $4.8 billion for 30,000 R&D projects and $1.8 billion for 62 biotechnology research projects, of which 5 involved risk assessment research. The National Science Foundation received $1.3 billion for 14,157 R&D projects and $81 million for 1,621 to 1,773 biotechnology research projects, of which 8 to 225 involved risk assessment.

131040

Water Resources: Legislation Needed To Extend the Life of Confined Disposal Facilities. RCED-86-145; B-221499. August 12, 1986.

Released September 16, 1986. 6 pp. plus 8 appendices (39 pp.). *Report* to Rep. Les Aspin; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division.

Issue Area: Natural Resources Management: Other Issue Area Work (6991).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Water Resources (301.0).

Organization Concerned: Department of the Army: Corps of Engineers; Department of Defense.

Congressional Relevance: *House* Committee on Government Operations; *House* Committee on Appropriations: Energy and Water Development Subcommittee; *House* Committee on Public Works and Transportation; *Senate* Committee on Appropriations: Energy and Water Development Subcommittee; *Senate* Committee on Environment and Public Works; *Rep.* Les Aspin.

Authority: River and Harbor Act of 1970 (P.L. 91-611). Water Resources Development Act of 1976 (P.L. 94-587).

Abstract: In response to a congressional request, GAO reviewed the status and use of confined disposal facilities that the Army Corps of Engineers built on the Great Lakes, specifically: (1) whether the facility in Kenosha, Wisconsin, should be closed; (2) the location and status of all confined disposal facilities that the Corps has built since 1970, local government and private sector use of the facilities, and the use for other than dredged contaminated material; and (3) remedies proposed by other communities whose facilities were not filled within the 10-year statutory period.

Findings/Conclusions: GAO found that: (1) the Corps should close the facility at Kenosha after 10 years unless the community agrees to an extension to keep the facility open; (2) as of May 1985, the Corps had constructed 24 facilities on the Great Lakes since 1970, of which it would probably not fill 17 within the 10-year statutory period; (3) 2 of the facilities were completely full, 9 were between 57- and 97-percent full, and 13 were less that 50-percent full; (4) local governments or the private sector used 8 of the facilities; (5) only two communities permitted facilities to be used for other than contaminated dredgings; and (6) no communities have proposed remedies to the Corps for unfilled facilities.

Recommendation To Agencies: If the Corps determines that continued use of existing unfilled confined disposal facilities for more than 10 years is necessary to hold contaminated dredgings, the Secretary of Defense should direct the Chief of Engineers to propose legislation amending P.L. 91-611 to allow the Corps to use such facilities beyond 10 years until filled, if local communities agree to the extension. If the Corps determines that continued use of existing unfilled confined disposal facilities for more than 10 years is necessary to hold contaminated dredgings, the Secretary of Defense should direct the Chief of Engineers to develop alternatives to dispose of contaminated dredgings where communities do not agree to the extension.

131057

Hazardous Waste: Selected Aspects of Cleanup Plan for Rocky Mountain Arsenal. NSIAD-86-205BR; B-213706. August 29, 1986.

Released September 17, 1986. 2 pp. plus 3 appendices (11 pp.). *Briefing Report* to Rep. Ronald V. Dellums, Chairman, House Committee on Armed Services: Military Installations and Facilities Subcommittee; Rep. Kenneth S. Kramer, Ranking Minority Member, House Committee on Armed Services: Military Installations and Facilities Subcommittee; by Harry R. Finley, Senior Associate Director, National Security and International Affairs Division.

Issue Area: Environment: Other Issue Area Work (6891); Air Force: Other Issue Area Work (5491).

Contact: National Security and International Affairs Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0); National Defense: Department of Defense - Military (Except Procurement and Contracting) (051.0).

Organization Concerned: Department of the Army; Department of the Army: Rocky Mountain Arsenal, CO.

Congressional Relevance: *House* Committee on Armed Services: Military Installations and Facilities Subcommittee; *Rep.* Kenneth S. Kramer; *Rep.* Ronald V. Dellums.

Authority: Military Construction Authorization Act, 1986 (P.L. 99-167). Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

Abstract: In response to a congressional request, GAO provided information on the cost and economic assumptions in the Army's June 1986 draft plan to accelerate the cleanup of an arsenal near Denver, Colorado.

Findings/Conclusions: GAO found that the Army: (1) provided well-documented cost and economic assumptions for the types of cleanup activities considered; (2) used the Office of Management and Budget's inflation rate to project total cleanup costs; (3) reasonably assumed that there will be sufficient labor for the scheduled cleanup activities; (4) has not identified the volume of contaminated material and the methods of treatment and disposal; and (5) has not adequately projected the cost of cleaning up the arsenal. GAO noted that: (1) the Army is studying options for cleaning up the site and a cost-effective alternative that meets cleanup goals and protects public health and the environment; and (2) current cost estimates for cleaning up the arsenal are preliminary.

131070

[The Condition of Information on Hazardous Waste]. September 24, 1986. 32 pp. plus 1 appendix (14 pp.). *Testimony* before the House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by Eleanor Chelimsky, Director, Program Evaluation and Methodology Division.

Contact: Program Evaluation and Methodology Division.

Organization Concerned: Chemical Manufacturers Association; Environmental Protection Agency; Congressional Budget Office; Office of Technology Assessment.

Congressional Relevance: *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee. .

Authority: Resource Conservation and Recovery Act of 1976. Solid and Hazardous Waste Amendments of 1984.

Abstract: GAO discussed whether future hazardous waste storage, treatment, and disposal capacity will be available to meet future waste production levels. GAO focused on studies that estimated national hazardous waste volume and capacity, specifically national studies and national-sectoral studies. GAO found that national-level estimates: (1) were based on different definitions of hazardous waste; (2) were methodologically diverse and contained different limitations; and (3) did not represent a consensual estimate on the current volume of waste produced nationally. GAO also found that: (1) there was little information on total waste management capacity; (2) the most current data were inconsistent from one study to the next for a specific time period; (3) three studies used the definition of hazardous waste differently; (4) national-sectoral studies provided data and information about hazardous waste that were narrowly scoped or at lower than national levels; and (5) the studies reviewed did not provide consistent information concerning the volume of hazardous waste generated by location. GAO concluded that although four current, national estimates of hazardous waste reached similar numerical estimates, they could not reinforce each other given their differing qualitative bases, statistical precision, and approaches to definition and measurement.

131105

Vehicle Emissions: EPA Program To Assist Leaded-Gasoline Producers Needs Prompt Improvement. RCED-86-182; B-223554. August 6, 1986.

Released September 24, 1986. 26 pp. plus 1 appendix (3 pp.). *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to RCED-86-80FS, March 12, 1986, Accession Number 129585.

Issue Area: Environment: Adequacy of Federal and State Efforts To Regulate Toxic Air Pollutants (6805).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *House* Committee on Energy and Commerce; *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Senate* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *Senate* Committee on Environment and Public Works; *Rep.* John D. Dingell.

Authority: Clean Air Act. Administrative Procedure Act. 50 Fed. Reg. 13116. 45 Fed. Reg. 59812. P.L. 99-198.

Abstract: In response to a congressional request, GAO reviewed: (1) certain Environmental Protection Agency (EPA) management controls over its Lead Rights Banking Program; and (2) the program's legal basis.

Findings/Conclusions: GAO found that EPA: (1) controls the program primarily through its reviews of participants' reports; (2) has not established a requirement to verify the reported data; (3) received erroneous information from participants on the amount of lead used in production and gallons of leaded gasoline produced; (4) is developing a methodology for audit participants to verify reported data and to ensure compliance with program requirements; (5) has no complete, current data on the balance of lead rights available for use through the end of the program in 1987; (6) has not enforced regulations regarding the 25 potential banking requirements violations; and (7) expects to implement enforcement action once it finalizes its lead rights banking enforcement policy.

Recommendation To Agencies: The Administrator, EPA, should establish specific time frames to develop: (1) a methodology for auditing refiners to verify reported data and ensure compliance with program requirements, and initiate such audits promptly; and (2) an enforcement policy, including the identification of program violations, enforcement actions to be taken, and the penalties to be assessed, and take appropriate actions against identified program violators. The Administrator, EPA, should: (1) require periodic reviews or assessments of agency actions being taken to expedite the review, processing, and reconciliation of refiners' reports; and (2) take other actions, such as providing additional staff and/or further modifying computer capabilities, if satisfactory progress is not being made.

131121

Nuclear Energy: Environmental Issues at DOE's Nuclear Defense Facilities. RCED-86-192; B-222195. September 8, 1986.

Released September 25, 1986. 49 pp. *Report* to Sen. John H. Glenn, Ranking Minority Member, Senate Committee on Governmental Affairs: Energy, Nuclear Proliferation and Government Processes Subcommittee; by J. Dexter Peach, Director, Resources, Community, and Economic Development Division. Refer to RCED-86-51FS, November 29, 1985, Accession Number 128653; RCED-86-61, December 13, 1985, Accession Number 128807; RCED-86-68FS, March 4, 1986, Accession Number 129344; RCED-86-175, June 16, 1986, Accession Number 130260; EMD-80-78, July 11, 1980, Accession Number 112850; EMD-81-108, August 4, 1981, Accession Number 115979; RCED-84-50, November 30, 1983, Accession Number 123131; T-RCED-87-7, March 17, 1987, Accession Number 132405; RCED-87-153, July 27, 1987, Accession Number 133794; RCED-88-62, December 16, 1987, Accession Number 134766; RCED-87-30, November 4, 1986, Accession Number 131661; RCED-87-93, April 14, 1987, Accession Number 132869; T-RCED-87-12, March 25, 1987, Accession Number 132484; T-RCED-87-4, March 12, 1987, Accession Number 132384; T-RCED-88-24, March 10, 1988, Accession Number 135246; T-RCED-88-30, March 31, 1988, Accession Number 135455; and RCED-88-130, March 28, 1988, Accession Number 135666.

Issue Area: Energy: Other Issue Area Work (6491).

Contact: Resources, Community, and Economic Development Division.

Budget Function: National Defense: Atomic Energy Defense Activities (053.0).

Organization Concerned: Department of Energy.

Congressional Relevance: *House* Committee on Appropriations: Energy and Water Development Subcommittee; *House* Committee on Science and Technology; *Senate* Committee on Governmental Affairs; *Senate* Committee on Appropriations: Energy and Water Development Subcommittee; *Senate* Committee on Governmental Affairs: Energy, Nuclear Proliferation and Government Processes Subcommittee; *Sen.* John H. Glenn.

Authority: Atomic Energy Act of 1954 (42 U.S.C. 2140 et seq.). Clean Water Act of 1977 (33 U.S.C. 1251 et seq.). Resource Conservation and Recovery Act of 1976 (42 U.S.C. 6901 et seq.). Energy Reorganization Act of 1974 (42 U.S.C. 5801). Department of Energy

Organization Act (42 U.S.C. 7101). Clean Air Act (42 U.S.C. 7401 et seq.). DOE Order 5480.1A. DOE Order 5480.2. DOE Order 5480.5. DOE Order 5480.6. DOE Order 5481.1B. DOE Order 5482.1B. DOE Order 5700.6B.

Abstract: Pursuant to a congressional request, GAO: (1) identified key environmental issues at nine Department of Energy (DOE) nuclear defense facilities; and (2) evaluated the status of DOE efforts to strengthen its environmental, safety, and health oversight programs.

Findings/Conclusions: GAO found that: (1) eight facilities have groundwater contaminated with radioactive or hazardous substances at levels higher than the proposed standards; (2) although six facilities have soil contamination in unexpected areas, including off-site locations, DOE sees a potential public health threat at only one of the facilities; (3) four facilities are not in full compliance with the Clean Water Act; (4) to obtain permits under the Resource Conservation and Recovery Act (RCRA), all nine facilities are significantly changing their waste disposal practices by closing existing disposal facilities or building new treatment facilities; and (5) it may cost over $1 billion to bring the facilities into full compliance with environmental laws and obtain the necessary permits.

Recommendation To Agencies: The Secretary of Energy should establish a groundwater and soil protection strategy that would reflect DOE policy on the extent groundwater and soil can become contaminated and include specific guidelines, to the extent practical, to protect groundwater and soil around DOE facilities. The Secretary of Energy should provide to Congress a comprehensive report setting forth DOE plans, milestones, and cost estimates for bringing DOE defense facilities into compliance with all applicable environmental laws. The Secretary of Energy should provide for independent inspections of DOE operations in regard to the treatment and disposal of any mixed waste that may be exempt from RCRA regulation. The Secretary of Energy should revise DOE Order 5480.2 governing hazardous and mixed waste to reflect how waste operations will be managed in the future.

131178

Hazardous Waste: EPA's Superfund Program Improvements Result in Fewer Stopgap Cleanups. RCED-86-204; B-223713. August 15, 1986.

Released September 29, 1986. 30 pp. *Report* to Rep. James J. Florio, Chairman, House Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-85-54, February 6, 1985, Accession Number 126211.

Issue Area: Environment: Assessing EPA's Cleanup of the Worst Abandoned Hazardous Waste Sites (6803).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; *Rep.* James J. Florio.

Authority: Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Clean Water Act of 1977.

Abstract: Pursuant to a congressional request, GAO reviewed: (1) the number and cost of the Environmental Protection Agency's (EPA) repeat cleanup actions at priority sites; (2) whether EPA is performing more thorough cleanups at priority hazardous waste sites; and (3) whether EPA has changed its removal operating policies and procedures since February 1985.

Findings/Conclusions: In February 1985, GAO recommended that EPA revise its regulations to require that removal actions eliminate surface hazards to reduce recurring threats, avoid repeated actions, and minimize Superfund expenditures. Although EPA considered each site stabilized after removal actions, GAO found that 35 sites required 80 subsequent actions within a short period of time. Of the 80 repeat actions, 73 took place at the priority sites EPA first addressed between December 1980 and February 1984. Although GAO could not determine how much EPA could save by performing more thorough initial cleanup actions, it identified $22 million associated with repeat actions. GAO also found that: (1) the extent to which EPA management changes will provide more complete cleanups is unknown because the lapse of Superfund taxing authority has curtailed or delayed 101 removal actions; (2) EPA revised its policies and procedures for stabilizing actual or potential emergencies at priority sites, although these revisions lack specific guidance as to the degree of cleanup; and (3) EPA is making progress performing short-term cleanups and has made only seven repeat cleanup actions at sites initially addressed since 1984.

131182

Pesticides: FDA's Investigation of Imported Apple Juice Concentrate. RCED-86-214FS; B-223906. August 29, 1986.

Released September 29, 1986. 11 pp. *Fact Sheet* to Rep. Frank Horton; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-86-112, March 4, 1986, Accession Number 129587.

Issue Area: Environment: Evaluation of the Federal Pesticide Regulatory Process' Capability To Protect Public Health and the Environment From Unreasonable Risks (6806); Food and Agriculture: Other Issue Area Work (6591).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Food and Drug Administration.

Congressional Relevance: *Rep.* Frank Horton.

Abstract: In response to a congressional request, GAO provided information on: (1) the volume of apple juice concentrate the United States imports; and (2) the methodology and testing results of the Food and Drug Administration's (FDA) special investigation on these concentrates.

Findings/Conclusions: GAO found that: (1) apple juice concentrate comprises nearly all of the volume of apple juice imports entering the United States; (2) the volume of apple juice concentrate imports increased fivefold between 1980 and 1985; (3) between March and May 1985, FDA district offices sampled each shipment of imported apple juice concentrate for mercury and daminozide in addition to their regular tests, since there were allegations that these chemicals were present in the concentrate; (4) most samples tested contained no detectable chemical residues; (5) samples containing the chemicals had levels well below the allowable levels; (6) FDA believes that imported apple juice and apple juice concentrate are safe; and (7) FDA added distilled water to its samples so that it could test the samples on a consistent basis and in the form in which they are normally consumed.

131318

EPA Construction Grants: Information on the Milwaukee Area Sewerage System Improvement Program. RCED-86-231BR; B-224149. September 29, 1986.

Released October 14, 1986. 19 pp. *Briefing Report* to Rep. Gerald Kleczka; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division.

Issue Area: Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Milwaukee, WI: Metropolitan Sewerage District.

Congressional Relevance: *Rep.* Gerald Kleczka.

Authority: Water Pollution Control Act. P.L. 84-660.

Abstract: In response to a congressional request, GAO obtained information on the Milwaukee Metropolitan Sewerage District's Water Pollution Abatement Program, specifically: (1) whether the district meets federal criteria for an eligible grantee and how it safeguards federal funds; (2) how the district funds its projects; (3) the extent of competitive bidding for architect and engineering work; (4) why the job site rule limiting allowable overhead billings was not applied to the prime contractor responsible for the program's management oversight and technical integrity; (5) the federal role in the district's decision to use rock removed from a project site to build a recreation island; and (6) approaches for measuring the reasonableness of architect and engineering costs.

Findings/Conclusions: GAO found that: (1) the district meets the federal criteria for an eligible grantee since it has jurisdiction over sewage disposal in its service area; (2) the district monitors the grant funds through pre-contract award reviews and through post-contract billing audits; (3) the federal and state governments fund the wastewater projects through an EPA-approved, Wisconsin project priority system; (4) architect and engineering contracts are competitively negotiated and do not require advertised competitive bidding; (5) the job site rule did not apply to the prime contractor because the contractor performed over 30 percent of the work at other corporate locations and was, therefore, allowed to use corporate overhead rates; (6) the district did not use federal funds to remove rocks from the project site to build a recreation island; and (7) neither EPA nor private sector guidelines offered complete criteria for the reasonable assessment of architect and engineering costs.

131345

Small Business Act: EPA's Disadvantaged Business Advocate Reports to Proper Management Level. GGD-87-5; B-222903.9. October 17, 1986. 2 pp. *Report* to Lee M. Thomas, Administrator, Environmental Protection Agency; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division.

Issue Area: Civil Procurement and Property Management: Other Issue Area Work (4991).

Contact: General Government Division.

Budget Function: Procurement - Other Than Defense (990.4).

Organization Concerned: Environmental Protection Agency; Environmental Protection Agency: Office of Small and Disadvantaged Business Utilization.

Congressional Relevance: *House* Committee on Small Business. .

Authority: Small Business Act.

Abstract: Pursuant to a congressional request, GAO reviewed the Environmental Protection Agency's (EPA) compliance with the Small Business Act, which requires a particular reporting level for the Office of Small and Disadvantaged Business Utilization's (OSDBU) Director.

Findings/Conclusions: GAO found that EPA is in compliance with the act's provisions concerning the OSDBU Director's required reporting level since, from the inception of OSDBU, its Director has been responsible only to, and has reported directly to, the Deputy Administrator.

131361

The Nation's Water: Key Unanswered Questions About the Quality of Rivers and Streams. PEMD-86-6; B-221558. September 19, 1986.

Released October 20, 1986. 118 pp. plus 6 appendices (41 pp.). *Report* to Rep. James L. Oberstar, Chairman, House Committee on Public Works and Transportation: Investigations and Oversight Subcommittee; by Eleanor Chelimsky, Director, Program Evaluation and Methodology Division. Refer to PEMD-87-4A, December 17, 1986, Accession Number 131802; and PEMD-87-4B, December 17, 1986, Accession Number 131803.

Issue Area: Program Evaluation and Methodology: Intended and Unintended Effects of Operational Systems and Technologies (7201); Environment: Assessing How Water Pollution Facilities Are Reducing Pollutants From the Nation's Waters (6804).

Contact: Program Evaluation and Methodology Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *House* Committee on Public Works and Transportation; *House* Committee on Public Works and Transportation: Investigations and Oversight Subcommittee; *Senate* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *Senate* Committee on Environment and Public Works; *Rep.* James L. Oberstar.

Authority: Water Pollution Control Act Amendments of 1972 (Federal). Clean Water Act of 1977. Environmental Policy Act of 1969 (National). H.R. 8 (99th Cong.). S. 1128 (99th Cong.).

Abstract: GAO reviewed and combined the findings of several studies on issues affecting national water quality policies and assessed the technical strength of their methodologies, specifically: (1) the present condition of the nation's water quality; (2) how the water quality has changed over time; (3) what pollution sources degrade water quality; and (4) the effect of the Environmental Protection Agency's (EPA) Construction Grants Program on water quality.

Findings/Conclusions: GAO found that: (1) some of the nation's water is of fairly good quality, while other water remains polluted; (2) pollution control efforts have reduced the discharge of conventional water pollutants from sources of focused pollution; (3) there was no change in water quality for most of the rivers examined; (4) the water quality in many rivers and streams has remained the same despite population and economic growth; (5) sources of diffused water pollution may degrade more stream-miles than sources of focused pollution; and (6) although the Construction Grants Program has reduced the discharge of pollutants from wastewater treatment plants, there is no data on its effect on in-stream pollutants. GAO also found that the effect on water quality is difficult to

determine due to: (1) the absence of any analysis of a national sample of projects funded by the program; (2) the lack of data and analysis directly linking the funding of construction grants to in-stream water quality; and (3) the lack of information and analysis to rule out explanations for changes in water quality associated with non-point-source and point-source pollution.

Recommendation To Agencies: The Administrator, EPA, should perform methodologically sound research that will allow a comparison of the cost-effectiveness of the Construction Grants Program with other abatement possibilities, such as industrial point-source control and non-point-source abatement programs. The Administrator, EPA, should encourage the states to use multiple measures and standardized objective data in preparing information for future section 305(b) and States' Evaluation of Progress reports. The states might identify the sources of critical data, indicating, for example, whether their data were derived from objective physical, chemical, or biological measures, subjective judgments by experts, or a combination of these.

131382

Inspectors General: Compliance With Professional Standards by the EPA Inspector General. AFMD-86-43; B-222715. September 30, 1986. 59 pp. plus 3 appendices (16 pp.). *Report* to John C. Martin, Inspector General, Environmental Protection Agency: Office of the Inspector General; by Milton J. Socolar (for Charles A. Bowsher, Comptroller General). Refer to AFMD-86-41, September 30, 1986, Accession Number 131332; AFMD-85-57, August 12, 1985, Accession Number 127631; AFMD-84-13, October 21, 1983, Accession Number 123210; AFMD-84-78, September 26, 1984, Accession Number 125390; AFMD-86-20, December 5, 1985, Accession Number 128616; AFMD-85-35, February 1985, Accession Number 126342; AFMD-87-22, July 20, 1987, Accession Number 133484; and AFMD-87-28, August 10, 1987, Accession Number 133853.

Issue Area: Fraud Prevention and Audit Oversight: Effectiveness of Federal Inspectors General in Carrying Out Their Congressional Mandate (7603).

Contact: Accounting and Financial Management Division.

Budget Function: Financial Management and Information Systems: Internal Audit (998.3).

Organization Concerned: Environmental Protection Agency: Office of the Inspector General.

Congressional Relevance: *House* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *House* Committee on Government Operations; *Senate* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *Senate* Committee on Governmental Affairs.

Authority: Inspector General Act of 1978. Freedom of Information Act (5 U.S.C. 552). Privacy Act of 1974. Resource Conservation and Recovery Act of 1976. OMB Circular A-73.

Abstract: GAO reviewed the Environmental Protection Agency's (EPA) Office of Inspector General (OIG) to determine whether OIG: (1) audit functions complied with Comptroller General and President's Council on Integrity and Efficiency (PCIE) standards; and (2) investigation function satisfactorily complied with PCIE quality and professional standards.

Findings/Conclusions: GAO found that: (1) OIG satisfactorily complied with 20 of the 23 audit and investigative standards used in assessing OIG operations; and (2) OIG needs to take corrective action to comply with certain aspects of three standards in the areas of evaluating and reporting on internal control systems, gathering evidence to support audit report statements, and developing an annual investigation plan. While OIG did not comply with some audit and investigation standards, GAO did not identify any cases where there was cause to question OIG findings in audits and investigations reviewed.

Recommendation To Agencies: To assist OIG in satisfactorily complying with certain aspects of the audit standards, the Inspector General (IG) should develop and implement policies and procedures clarifying the applicability of audit standards for desk audits. To assist OIG in satisfactorily complying with certain aspects of the audit standards, IG should require the use of OIG checklists to provide greater assurance that audit supervisors document and retain supervisory reviews of all work products. To assist OIG in satisfactorily complying with certain aspects of the audit standards, IG should develop and implement policies and procedures outlining when an identification and evaluation study of internal controls is required. To assist OIG in satisfactorily complying with certain aspects of the audit standards, IG should develop and implement policies and procedures requiring the reporting of the scope of internal control work. To assist OIG in satisfactorily complying with certain aspects of the audit standards, IG should develop and implement a quality-assurance mechanism, such as referencing, to help ensure the adequacy of evidence. To assist OIG in satisfactorily complying with certain aspects of the audit standards, IG should resolve the inconsistencies between OIG and EPA on public access to audit reports. To increase the discipline for sound financial management, enhance oversight, and help ensure financial integrity, IG should expand the current financial program by performing additional audits, which examine financial reports and the reliability of accounting systems which produce the reports. Eventually, more OIG audits should be undertaken with the objective of expressing an opinion on the accuracy and adequacy of EPA financial reports. To enhance its audit follow-up efforts, IG should develop and implement policies and procedures for tracking and ascertaining, on a systematic basis, the audit resolution of OIG recommendations. To enhance its audit follow-up efforts, IG should coordinate with agency follow-up officials to obtain feedback on the status of actions taken to implement OIG recommendations. To assist OIG in satisfactorily complying with certain aspects of the standards, IG should develop an annual investigation plan which specifies the goals, objectives, or tasks to be accomplished, and the accomplishments, benefits, or results to be derived from attaining the goals. IG should establish a system for cross-referencing investigation cases.

131387

Surface Mining: Difficulties in Reclaiming Mined Lands in Pennsylvania and West Virginia. RCED-86-221; B-223430. September 22, 1986.

Released October 21, 1986. 61 pp. plus 6 appendices (9 pp.). *Report* to Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-85-147, August 8, 1985, Accession Number 127769.

Issue Area: Natural Resources Management: OSM and State Effectiveness in Meeting Regulatory Responsibilities Under SMCRA (6910); Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Conservation and Land Management (302.0).

Organization Concerned: Department of the Interior; Department of the Interior: Office of Surface Mining Reclamation and Enforcement.

Congressional Relevance: *House* Committee on Interior and Insular Affairs; *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *Senate* Committee on Energy and Natural Resources; *Senate* Committee on Appropriations: Interior and Related Agencies Subcommittee; *Rep.* Michael L. Synar.

Authority: Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201 et seq.). Surface Mining Conservation and Reclamation Act (Pennsylvania). Surface Coal Mining and Reclamation Act (West Virginia).

Abstract: Pursuant to a congressional request, GAO reported on the bonding systems for reclamation of strip-mined land in Pennsylvania and West Virginia.

Findings/Conclusions: GAO found that: (1) unreclaimed acreage exists in both states, posing risks to the health and safety of the public and environment; (2) the interim program bond amounts in Pennsylvania and, to a lesser extent, in West Virginia, have not been adequate to reclaim all interim program lands; and (3) the Department of the Interior's Office of Surface Mining Reclamation and Enforcement (OSMRE) has not formally assessed the adequacy of the permanent program bonding systems in either state or the impact of using reclamation funds for program administration on the ability of the states to reclaim their bond forfeiture lands.

Recommendation To Agencies: In order to ensure the reclamation of coal-mined lands, the Secretary of the Interior should require the Director, OSMRE, to work with the states to ensure that all bond forfeiture lands are quickly assessed and the most hazardous sites are reclaimed rapidly. Because environmental problems may arise if sites remain unreclaimed for extended periods of time, the Secretary of the Interior should require the Director, OSMRE, to study, compare, and contrast the state reclamation processes and work with the states to implement the most efficient and effective reclamation process. In order to ensure that adequate funds are available to reclaim forfeited mine sites, the Secretary of the Interior should require the Director, OSMRE, to take the lead in examining the interim program funding problem and report to Congress its recommendations for ensuring the reclamation of these lands. In order to ensure that adequate funds are available to reclaim forfeited mine sites, the Secretary of the Interior should require the Director, OSMRE, to develop formal criteria for evaluating the adequacy of alternative bonding systems, and determine the adequacy of existing alternative bonding systems, including the impact that expenditures for program administration have on the ability of the states to reclaim abandoned lands.

131576

Water Resources: Delaware River Basin Commission's Management of Certain Water Activities. RCED-87-31; B-224109. October 8, 1986.

Released November 7, 1986. 43 pp. plus 7 appendices (22 pp.). *Report* to Rep. Peter H. Kostmayer; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to CED-81-34, February 20, 1981, Accession Number 114416.

Issue Area: Natural Resources Management: Other Issue Area Work (6991).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Water Resources (301.0).

Organization Concerned: Delaware River Basin Commission.

Congressional Relevance: *Rep.* Peter H. Kostmayer.

Authority: Clean Water Act of 1977.

Abstract: Pursuant to a congressional request, GAO provided information on the Delaware River Basin Commission's management of the Delaware River Basin's resources, specifically: (1) the extent of the Commission's water conservation strategies and techniques; (2) the accuracy of population growth and water use forecasts; and (3) the effectiveness of the Commission's process for granting permits to ensure adequate stream flow.

Findings/Conclusions: GAO found that: (1) the Commission's water conservation strategies consisted of reducing water flow to New York City and New Jersey, and state and Commission actions to reduce nonessential water use to protect the lower reaches of the basin from saltwater intrusion and provide adequate water supplies to basin users through the year 2000; (2) the Commission overestimated the population growth for the basin by 3.4 percent; (3) the Commission does not have enough data for surface and groundwater withdrawal to accurately forecast water use; and (4) the Commission does not have enough data on water availability and usage to evaluate the effectiveness of the permitting process in ensuring adequate stream flow.

131594

Nuclear Waste: Quarterly Report on DOE's Nuclear Waste Program as of September 30, 1986. RCED-87-48FS; B-202377. November 5, 1986. 20 pp. *Fact Sheet* to Sen. James A. McClure, Chairman, Senate Committee on Energy and Natural Resources; Sen. J. Bennett Johnston, Ranking Minority Member, Senate Committee on Energy and Natural Resources; by Keith O. Fultz, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-85-27, January 10, 1985, Accession Number 125996; RCED-85-100, September 30, 1985, Accession Number 128021; RCED-85-42, October 19, 1984, Accession Number 125544; RCED-85-65, January 31, 1985, Accession Number 126199; RCED-85-116, April 30, 1985, Accession Number 126921; RCED-85-156, July 31, 1985, Accession Number 127746; RCED-86-42, October 30, 1985, Accession Number 128514; RCED-86-86, January 31, 1986, Accession Number 129261; RCED-86-198FS, August 15, 1986, Accession Number 130812; RCED-86-206FS, August 11, 1986, Accession Number 130696; RCED-86-200FS, July 30, 1987, Accession Number 130677; RCED-86-143, July 29, 1986, Accession Number 130648; RCED-86-104FS, May 8, 1986, Accession Number 129887; RCED-86-4, April 1, 1986, Accession Number 129698; and RCED-87-95FS, February 19, 1987, Accession Number 132206.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).

Organization Concerned: Department of Energy: Office of Civilian Radioactive Waste Management.

Congressional Relevance: *Senate* Committee on Energy and Natural Resources; *Sen.* J. Bennett Johnston; *Sen.* James A. McClure.

Authority: Nuclear Waste Policy Act of 1982 (P.L. 97-425). 10 C.F.R. 72.

Abstract: Pursuant to a congressional request, GAO provided its quarterly status report on the Department of Energy's (DOE) implementation of the Nuclear Waste Policy Act which established: (1) a comprehensive national program to construct geologic repositories for the permanent disposal of high-level radioactive nuclear waste; (2) the Office of Civilian Radioactive Waste Management (OCRWM) within DOE to carry out the act's provisions; and (3) the Nuclear Waste Fund to finance the program.

Findings/Conclusions: GAO found that: (1) on May 28, 1986, the President approved potential first repository sites in Nevada, Texas, and Washington for site characterization studies intended to provide the basis for deciding on the preferred site for the nation's first nuclear waste repository; (2) OCRWM has placed primary emphasis on preparing site characterization plans, which it must complete for each site before the exploratory shafts are constructed; (3) Congress passed a continuing resolution in October 1986 that provided no funding for drilling exploratory shafts at any site in fiscal year 1987; (4) on May 28, 1986, DOE announced an indefinite postponement of any site-specific work on a second repository and initiated planning for a broad-based technology development program; (5) the pending court cases regarding nuclear waste remained unresolved, and nine new actions were initiated against DOE; (6) the Nuclear Waste Fund collected over $84.6 million in fees and investment income and obligated about $144 million for program activities; and (7) the fund balance as of September 30, 1986, was about $1.4 billion.

131615

Alternative Fuels: Status of Methanol Vehicle Development. RCED-87-10BR; B-224084. October 17, 1986.

Released November 17, 1986. 94 pp. plus 3 appendices (7 pp.). *Briefing Report* to Rep. Philip R. Sharp, Chairman, House Committee on Energy and Commerce: Fossil and Synthetic Fuels Subcommittee; by James Duffus, III, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-85-97, May 3, 1985, Accession Number 126896; RCED-86-136FS, April 4, 1986, Accession Number 129616; and RCED-84-36, October 27, 1983, Accession Number 122727.

Issue Area: Energy: Assessing Whether the DOE R&D Program Will Result in Developing Needed Alternative Energy Technologies To Meet Future Energy Demand (6410).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Supply (271.0).

Congressional Relevance: *House* Committee on Energy and Commerce: Fossil and Synthetic Fuels Subcommittee; *Rep.* Philip R. Sharp.

Authority: Energy Policy and Conservation Act. Clean Air Act. Motor Vehicle Information and Cost Savings Act. 50 Fed. Reg. 10606. P.L. 96-425. H. Rept. 94-340. H.R. 3355 (99th Cong.). H.R. 2955 (99th Cong.). S. 1097 (99th Cong.).

Abstract: In response to a congressional request, GAO provided information on the methanol supply and the status of methanol vehicle development in the United States.

Findings/Conclusions: GAO found that: (1) only 1 percent of the methanol produced in 1985 was used for vehicle fuel; (2) the total domestic methanol production capacity would meet less than 1 percent of automotive fuel demand; (3) automobile manufacturers and state and private research groups need to conduct further research to resolve certain problems with methanol-fueled vehicles, such as cold-weather starting; (4) automobile manufacturers are not producing methanol vehicles because the lack of retail methanol fuel and low gasoline prices render methanol not economically viable; (5) federal emissions and fuel economy standards could influence the introduction of methanol as an alternative vehicle fuel; and (6) several mass transit authorities are using methanol-fueled buses to reduce air pollution emissions.

131661

Nuclear Waste: Unresolved Issues Concerning Hanford's Waste Management Practices. RCED-87-30; B-224784. November 4, 1986.

Released November 18, 1986. 66 pp. plus 1 appendix (2 pp.). *Report* to Sen. John H. Glenn, Ranking Minority Member, Senate Committee on Governmental Affairs: Energy, Nuclear Proliferation and Government Processes Subcommittee; Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-86-192, September 8, 1986, Accession Number 131121; T-RCED-87-7, March 17, 1987, Accession Number 132405; RCED-87-153, July 27, 1987, Accession Number 133794; RCED-88-62, December 16, 1987, Accession Number 134766; T-RCED-87-12, March 25, 1987, Accession Number 132484; T-RCED-87-4, March 12, 1987, Accession Number 132384; RCED-88-130, March 28, 1988, Accession Number 135666; RCED-88-158, May 25, 1988, Accession Number 136111; and RCED-88-115, July 19, 1988, Accession Number 136383.

Issue Area: Energy: Other Issue Area Work (6491).

Contact: Resources, Community, and Economic Development Division.

Budget Function: National Defense: Atomic Energy Defense Activities (053.0).

Organization Concerned: Department of Energy: Hanford Power Station; Department of Energy; Environmental Protection Agency.

Congressional Relevance: *House* Committee on Appropriations: Energy and Water Development Subcommittee; *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *Senate* Committee on Appropriations: Energy and Water Development Subcommittee; *Senate* Committee on Governmental Affairs: Energy, Nuclear Proliferation and Government Processes Subcommittee; *Rep.* Michael L. Synar; *Sen.* John H. Glenn.

Authority: Resource Conservation and Recovery Act of 1976. Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Atomic Energy Act of 1954. Clean Air Act. Clean Water Act of 1977. Toxic Substances Control Act. DOE Order 5480.14. DOE Order 5820.2. DOE Order 5480.2.

Abstract: In response to a congressional request, GAO reviewed the Department of Energy's (DOE) management and disposal of defense nuclear waste at its Hanford, Washington, facility to determine how Hanford complies with the Resource Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA).

Findings/Conclusions: RCRA regulates hazardous waste from its generation through its ultimate disposal, and CERCLA regulates the cleanup of inactive waste sites; DOE is exempt from RCRA where compliance would be inconsistent with the Atomic Energy Act. GAO found that Hanford: (1) has not identified all the disposal units for RCRA permit applications; (2) drafted a report identifying potential CERCLA

sites, which excluded at least 400 sites; (3) disposes of liquid low-level byproduct waste directly into the soil, despite state and Environmental Protection Agency (EPA) opposition, because it believes that its RCRA Atomic Energy Act exclusions allow it to do so without a permit; (4) does not meet RCRA groundwater monitoring requirements at four hazardous or mixed-waste units; and (5) compliance with RCRA and CERCLA has become more complex because recent amendments have caused uncertainties concerning the corrective actions required to receive RCRA permits.

Recommendation To Agencies: The Secretary of Energy should require Hanford to report to EPA and Washington State: (1) all sites and units previously and currently used to treat, store, and dispose of waste, including those considered to be byproduct and those contaminated by unplanned releases; and (2) the regulatory authority, RCRA, CERCLA, or the Atomic Energy Act, that controls the management, disposal, and corrective actions for all sites and units identified.

131729

Pesticides: Better Sampling and Enforcement Needed on Imported Food. RCED-86-219; B-222128. September 26, 1986.

Released December 3, 1986. 48 pp. plus 6 appendices (7 pp.). *Report* to Rep. Frank Horton, Ranking Minority Member, House Committee on Government Operations; by Neal P. Curtin, (for J. Dexter Peach, Assistant Comptroller General), Resources, Community, and Economic Development Division. Refer to T-RCED-87-21, April 30, 1987, Accession Number 132820; T-RCED-88-12, December 14, 1987, Accession Number 134620; T-RCED-88-40, May 10, 1988, Accession Number 135754; and RCED-88-149BR, May 10, 1988, Accession Number 135821.

Issue Area: Environment: Evaluation of the Federal Pesticide Regulatory Process' Capability To Protect Public Health and the Environment From Unreasonable Risks (6806); Food and Agriculture: Effectiveness of U.S. Food/Agriculture Products in Satisfying Safety, Quality, and Dietary Needs (6508).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Food and Drug Administration; Department of Health and Human Services; Department of the Treasury.

Congressional Relevance: *House* Committee on Government Operations: Commerce, Consumer and Monetary Affairs Subcommittee; *House* Committee on Appropriations: Labor, Health and Human Services, and Education Subcommittee; *House* Committee on Energy and Commerce; *House* Committee on Government Operations; *Senate* Committee on Environment and Public Works: Toxic Substances and Environmental Oversight Subcommittee; *Senate* Committee on Environment and Public Works: Superfund and Environmental Oversight Subcommittee; *Senate* Committee on Appropriations: Labor, Health and Human Services, and Education Subcommittee; *Senate* Committee on Labor and Human Resources; *Rep.* Frank Horton.

Authority: Insecticide, Fungicide and Rodenticide Act (7 U.S.C. 136 et seq.). Food, Drug and Cosmetic Act (21 U.S.C. 301 et seq.). Meat Inspection Act (21 U.S.C. 601 et seq.). Poultry Products Inspection Act (21 U.S.C. 451 et seq.). Egg Products Inspection Law (21 U.S.C. 1031 et seq.).

Abstract: Pursuant to a congressional request, GAO reviewed the Food and Drug Administration's (FDA) efforts to protect the public from exposure to illegal pesticide residues in imported food.

Findings/Conclusions: GAO found that: (1) the FDA pesticide monitoring program provides limited protection against public exposure to illegal residues in food; (2) FDA samples less than 1 percent of 1 million imported food shipments annually; (3) FDA inspectors at various ports of entry decide the extent to which they apply sample criteria; and (4) FDA uses five multi-residue tests that individually detect many pesticides on a single sample; however, FDA laboratories normally use only one method for each sample. GAO also found that: (1) although FDA policy requires importers to maintain all sampled shipments intact until FDA determines that the product is residue-free, FDA permits importers to release the majority of sampled shipments to U.S. markets before they spoil; (2) of 164 adulterated samples, 73 were not recovered before public consumption; and (3) there were only eight documented cases where FDA assessed importers damages when adulterated food reached the marketplace.

Recommendation To Agencies: The Secretary of Health and Human Services should direct the Commissioner, FDA, to: (1) redirect resources away from highly sampled commodities with low violation rates to provide coverage of a wide range of imported commodities and importing countries, using a comprehensive monitoring summary to assist in the analysis; and (2) improve monitoring of importers and commodities with histories of pesticide violations by continuing follow-up sampling and certification requirements through successive growing seasons. The Secretary of Health and Human Services should direct the Commissioner, FDA, to assess the relative merits of the alternative means to obtain information on actual foreign pesticide use, including current legislative and regulatory authority, and: (1) require U.S. pesticide manufacturers who export pesticide chemicals to foreign countries to report the pesticides and quantities sold overseas; (2) require importers of food to certify which pesticides were used during production; and (3) develop cooperative agreements with foreign countries for the exchange of information on pesticide usage in food production. As better information becomes available on foreign pesticide uses, the Secretary of Health and Human Services should direct the Commissioner, FDA, to test imported food for the pesticides used or suspected of being used on imported foods. The Secretary of Health and Human Services should direct the Commissioner, FDA, to recommend to Customs that liquidated damages be assessed for all shipments found to contain illegal pesticide residues if the shipment is not recovered. This assessment should apply whether the shipment was sampled under surveillance or compliance. The Secretary of the Treasury should direct the Commissioner of Customs to assess and collect liquidated damages from importers in all cases when FDA determines that imported food has been adulterated with illegal pesticide residues and the food is not recovered.

131730

Pesticides: Need To Enhance FDA's Ability To Protect the Public From Illegal Residues. RCED-87-7; B-219498. October 27, 1986.

Released December 3, 1986. 58 pp. *Report* to Sen. Max S. Baucus, Ranking Minority Member, Senate Committee on Environment and Public Works: Toxic Substances and Environmental Oversight Subcommittee; Sen. David Durenberger, Chairman, Senate Committee on Environment and Public Works: Toxic Substances and Environmental Oversight Subcommittee; by J. Dexter Peach, Assistant

Comptroller General, Resources, Community, and Economic Development Division. Refer to T-RCED-87-21, April 30, 1987, Accession Number 132820; HRD-88-21, December 4, 1987, Accession Number 134773; T-RCED-88-12, December 14, 1987, Accession Number 134620; and RCED-88-135, August 10, 1988, Accession Number 136890.

Issue Area: Health Delivery and Quality of Care: Effectiveness of FDA in Monitoring the Marketplace, Detecting Violations, Ensuring Compliance, and Coordinating With Other Agencies (5205); Environment: Evaluation of the Federal Pesticide Regulatory Process' Capability To Protect Public Health and the Environment From Unreasonable Risks (6806).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Health: Consumer and Occupational Health and Safety (554.0); Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Food and Drug Administration; Department of Health and Human Services.

Congressional Relevance: *House* Committee on Energy and Commerce; *House* Committee on Appropriations: Labor, Health and Human Services, and Education Subcommittee; *House* Committee on Education and Labor; *Senate* Committee on Environment and Public Works; *Senate* Committee on Appropriations: Labor, Health and Human Services, and Education Subcommittee; *Senate* Committee on Labor and Human Resources; *Senate* Committee on Environment and Public Works: Toxic Substances and Environmental Oversight Subcommittee; Congress; *Sen.* Max S. Baucus; *Sen.* David Durenberger.

Authority: Food, Drug, and Cosmetic Act (21 U.S.C. 301 et seq). Insecticide, Fungicide and Rodenticide Act (7 U.S.C. 136 et seq). Meat Inspection Act (21 U.S.C. 601 et seq). Poultry Products Inspection Act (21 U.S.C. 451 et seq). Criminal Fine Enforcement Act of 1984 (P.L. 98-596). Egg Products Inspection Law (21 U.S.C. 1031 et seq).

Abstract: In response to a congressional request, GAO reviewed the Food and Drug Administration's (FDA) activities to protect the public from exposure to illegal pesticide residues in the domestic food supply under the Food, Drug, and Cosmetic Act, specifically its: (1) monitoring of the nation's domestic food supply for illegal residues; and (2) efforts to prevent food containing illegal residues from reaching the market.

Findings/Conclusions: GAO noted that, since FDA could not monitor all food that might contain illegal pesticide residues, it designed its monitoring program to selectively spot-check a very small amount of domestically produced food and remove food that it found to contain illegal residues. GAO found that the FDA pesticide monitoring program has two major shortcomings because FDA does not: (1) regularly test food for a large number of pesticides that might be present in food, including a number of pesticides that, according to FDA, require continuous or periodic monitoring because they are known as potential health hazards and are likely to be used; (2) prevent the marketing of most of the food that it finds containing illegal pesticide residues; and (3) penalize growers who market food with illegal pesticide residues when FDA is unable to remove it from the market.

Recommendation To Congress: In view of the difficulties that FDA faces in trying to use existing authorities to prevent the marketing of domestic food containing illegal pesticide residues and the need to provide a strong deterrent against such shipments, Congress may wish to give FDA legislative authority to assess civil penalties against growers of such food when it is not removed from the marketplace.

Recommendation To Agencies: The Secretary of Health and Human Services should direct the Commissioner, FDA, to establish specific criteria for the level of testing that is required for continuous and periodic monitoring and require FDA laboratories to test in accordance with such criteria.

131802

Water Quality: An Evaluation Method for the Construction Grants Program--Methodology. PEMD-87-4A; B-221558. December 17, 1986. 59 pp. plus 2 appendices (11 pp.). *Report* to Lee M. Thomas, Administrator, Environmental Protection Agency; by Eleanor Chelimsky, Director, Program Evaluation and Methodology Division. Refer to CED-78-167, December 11, 1978, Accession Number 107951; CED-81-30, April 30, 1981, Accession Number 115081; PEMD-86-6, September 19, 1986, Accession Number 131361; and PEMD-87-4B, December 17, 1986, Accession Number 131803.

Issue Area: Program Evaluation and Methodology: Intended and Unintended Effects of Operational Systems and Technologies (7201); Environment: Assessing How Water Pollution Facilities Are Reducing Pollutants From the Nation's Waters (6804).

Contact: Program Evaluation and Methodology Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *House* Committee on Appropriations: Energy and Water Development Subcommittee; *House* Committee on Public Works and Transportation; *Senate* Committee on Appropriations: Energy and Water Development Subcommittee; *Senate* Committee on Environment and Public Works.

Authority: Water Pollution Control Act Amendments of 1972 (Federal) (P.L. 92-500). Clean Water Act of 1977. H.R. 8 (99th Cong.).

Abstract: GAO evaluated existing Environmental Protection Agency (EPA) data concerning the Construction Grants Program's effectiveness in upgrading sewage-treatment plants in order to develop guidelines to evaluate the upgrades.

Findings/Conclusions: GAO found that: (1) adequate stream data to assess the effect of treatment plant upgrades do not yet exist; and (2) using existing data would provide a more realistic estimate of the program's effectiveness than is now available. GAO developed a method which successfully answered essential evaluation questions with available data and software. GAO found that: (1) there were statistically significant post-upgrade decreases in the pollutants discharged from each plant that it examined and improvements in downstream water quality in three of the four cases; (2) for the most part, changes in plant discharge were moderately reflected in stream water quality; and (3) a correlation between changes in a plant's discharge levels and stream indicators does not mean that the plant's upgrade is the sole determinant of a change in water quality downstream.

Recommendation To Agencies: The Administrator, EPA, should perform additional evaluations of treatment plant upgrades that use available data and methods similar to those GAO developed. These evaluations should be intended to determine the feasibility of performing a broadly based and methodologically sound evaluation of the Construction Grants Program that makes optimal use of the data already in EPA possession and that identifies and remedies the gaps in its information

systems. EPA should improve the reliability and accessibility of its water quality data base by ensuring the internal consistency of its data collection practices, updating its data on the geographical locations of plants and stations to reflect changes in them, and expanding its use of river mile indicators for monitoring stations and point sources.

131803

Water Quality: An Evaluation Method for the Construction Grants Program--Case Studies. PEMD-87-4B; B-221558. December 17, 1986. 65 pp. plus 5 appendices (26 pp.). *Report* to Lee M. Thomas, Administrator, Environmental Protection Agency; by Eleanor Chelimsky, Director, Program Evaluation and Methodology Division. Refer to PEMD-86-6, September 19, 1986, Accession Number 131361; and PEMD-87-4A, December 17, 1986, Accession Number 131802.

Issue Area: Program Evaluation and Methodology: Intended and Unintended Effects of Operational Systems and Technologies (7201); Environment: Assessing How Water Pollution Facilities Are Reducing Pollutants From the Nation's Waters (6804).

Contact: Program Evaluation and Methodology Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Authority: Clean Water Act of 1977.

Abstract: GAO provided information on the effect of the Environmental Protection Agency's (EPA) Water Construction Grants program and guidelines for the use of data and software in evaluating sewage-treatment plant upgrades in four Pennsylvania communities.

Findings/Conclusions: GAO found that: (1) the volume of pollutants discharged from the plants declined substantially after the upgrades and total wastewater discharge increased at three of the four sites; (2) water quality improved significantly at two of the sites, remained unchanged at one site, and improved slightly at the fourth site; (3) although changes in three of the plants' discharges were related to water quality, the relationship was stronger at two plants under low-flow conditions and when statistical adjustments were made for variations in stream flow levels; and (4) pollutants from other municipal and industrial sources significantly affected the water-quality conditions of two plants.

131926

Wild and Scenic Rivers: Certain Rivers Not in National System Generally Retain Original Values. RCED-87-39; B-224697. December 16, 1986.

Released January 6, 1987. 53 pp. plus 13 appendices (104 pp.). *Report* to Rep. Bruce F. Vento, Chairman, House Committee on Interior and Insular Affairs: National Parks and Recreation Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division.

Issue Area: Natural Resources Management: Effectiveness of Natural Resources Protection Programs and Their Effect on the Balance Between Land Development and Conservation Interests (6905); Natural Resources Management: Effectiveness of the Set-Aside of Special Areas on Federal Lands (6914).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Conservation and Land Management (302.0).

Organization Concerned: Department of the Interior.

Congressional Relevance: *House* Committee on Interior and Insular Affairs; *House* Committee on Interior and Insular Affairs: National Parks and Recreation Subcommittee; *Rep.* Bruce F. Vento.

Authority: Wild and Scenic Rivers Act (P.L. 90-542; 16 U.S.C. 1271 et seq.).

Abstract: In response to a congressional request, GAO provided information on development activities on 13 wild and scenic rivers under nonfederal protection, specifically: (1) water projects; (2) shoreline development; (3) resource development; (4) road and utility construction; (5) water quality; and (6) recreational use. GAO also ascertained whether the federal wild and scenic river studies included required estimates of federal land acquisition and river management costs.

Findings/Conclusions: GAO found that: (1) there were no new dams or other water project developments on any of the rivers since the federal studies; (2) modifications for hydroelectric production to existing dams on several of the rivers should not endanger the rivers' preexisting flow conditions; (3) although state authorities are considering major water supply diversions from two rivers, the effects of reducing the flow of water and degrading the scenic values on the rivers may well prevent development; (4) few of the rivers experienced industrial, residential, or utility developments that dramatically affected their qualities; (5) 4 rivers suffered deteriorating water quality or degrading scenic values from resource development activities; (6) water pollution is a major concern on 6 of the rivers; (7) 9 of the 27 studies GAO reviewed for cost estimates did not contain detailed, specific land acquisition and management cost estimates that would better enable Congress to decide which rivers to include in the system; (8) 11 of the studies included excessive federal costs as part of the rationale for recommending against including the rivers in the national system; and (9) the Department of the Interior believed the expenditure of funds to prepare specific cost estimates for adding certain rivers to the national system would be imprudent because of strong local opposition.

Recommendation To Agencies: The Secretary of the Interior should ensure that future wild and scenic river studies transmitted to Congress contain specific cost estimates of potential federal land acquisition and management costs of adding a study river to the national system.

131927

Parks and Recreation: Access Permits to Back Bay National Wildlife Refuge Improperly Granted. RCED-87-69; B-225307. December 29, 1986.

Released January 7, 1987. 9 pp. plus 4 appendices (8 pp.). *Report* to Rep. G. William Whitehurst; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division.

Issue Area: Natural Resources Management: Effectiveness of Programs Designed To Promote and Regulate the Development, Rehabilitation, and Management of Public Rangelands (6913).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Conservation and Land Management (302.0).

Organization Concerned: United States Fish and Wildlife Service: Back Bay National Wildlife Refuge (VA); Department of the Interior.

Congressional Relevance: *House* Committee on Appropriations: Interior Subcommittee; *House* Committee on Interior and Insular Affairs; *Senate*

Committee on Energy and Natural Resources: Public Lands, National Parks and Forests Subcommittee; *Senate* Committee on Appropriations: Interior Subcommittee; *Rep.* G. William Whitehurst.

Authority: P.L. 96-315. P.L. 98-146.

Abstract: In response to a congressional request, GAO provided information on the Fish and Wildlife Service's (FWS) access permit program at the Back Bay National Wildlife Refuge, specifically whether individuals with vehicular access permits met the prescribed residential or commercial criteria. GAO examined: (1) laws and regulations to determine how access permits were issued; and (2) the refuge office files to determine whether they contained the documentation required to establish permit holders' eligibility.

Findings/Conclusions: GAO found that FWS: (1) issued 22 of the 54 access permits in effect as of August 1986 without adequate documentation as to the permit holders' eligibility; (2) issued 7 permits as medical waivers, although FWS regulations did not specifically provide for such permits for year-round access; (3) improperly renewed 10 other permits; and (4) took no action to correct some of the problems because of the controversy involved in trying to deny or revoke access permits.

Recommendation To Agencies: The Secretary of the Interior should instruct the Director, FWS, to notify the 22 residential and commercial permit holders who GAO found had not provided sufficient evidence of eligibility, and the 10 who did not submit renewal statements for 1986, that they must furnish the required documentation within a prescribed period of time, and that holders should also be required to provide documentation for their employees, or have their access privileges revoked. The Secretary of the Interior should instruct the Director, FWS, to ensure that the interim regulations issued in February 1987, allowing access for medical and other reasons, include clear criteria for these types of permits, and that guidelines are issued to specify the type of documentation necessary to establish eligibility. Once the regulations are issued, FWS should notify the eight current holders of such permits that they will have to reapply within a prescribed period of time and document their eligibility under the interim regulations or have their access permits revoked.

131993

Air Quality Standards: EPA's Standard Setting Process Should Be More Timely and Better Planned. RCED-87-23; B-225208. December 3, 1986.

Released January 16, 1987. 39 pp. plus 1 appendix (2 pp.). *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division.

Issue Area: Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Science and Technology; *House* Committee on Energy and Commerce; *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Senate* Committee on Environment and Public Works; *Rep.* John D. Dingell.

Authority: Clean Air Act. Clean Air Act Amendments of 1970. Clean Air Act Amendments of 1977. Executive Order 12291.

Abstract: In response to a congressional request, GAO reported on: (1) the current status and cost of the Environmental Protection Agency's (EPA) efforts to review and update its national air quality standards; and (2) EPA plans for addressing additional research needs.

Findings/Conclusions: GAO found that EPA: (1) had not met its congressional mandate for reviewing and updating its national air quality standards by 1980; (2) reviewed and updated only one of the standards by the end of 1980; (3) did not complete reviews for two other standards until 4 years after the 1980 deadline; and (4) expects to complete its review of the remaining three pollutant standards in 1989. GAO also found that factors contributing to EPA delays include: (1) the length of time it takes to perform internal and external reviews; (2) EPA managers waiting for the re-examination of existing science or publication of new studies; and (3) turnover of top EPA administrators. EPA believes it can overcome these obstacles by developing milestones to review and update standards. GAO noted that EPA: (1) was aware that questions existed about the scientific information supporting each of the six air pollutant standards; (2) has not systematically identified and matched those questions with planned and ongoing research projects for each pollutant; (3) has not kept records on the actual cost of reviewing and updating the national air quality standards; and (4) estimates that it has spent about $348 million on the standards since fiscal year 1978.

Recommendation To Agencies: In order to meet the timetable Congress established, the Administrator, EPA, should adhere to the milestones in the EPA 5-year schedule for reviewing and updating the standards. To meet the milestones, the Administrator will need to limit technical analyses and reviews in the standard-setting process to those provided for in the EPA 5-year planning schedule. EPA should do additional analyses and reviews during the next 5-year review cycle. The Administrator, EPA, should implement procedures to record costs to review and update each air quality standard. To assist EPA managers in setting national air quality standards, the Administrator, EPA, should implement a formal process for identifying and documenting research questions and matching these questions with planned and ongoing research for each of the six pollutants. Specifically, formal research plans should be prepared highlighting questions about health effects for each pollutant and the extent to which planned and ongoing research will address them. The identification of research questions should be done by those EPA officials most knowledgeable of the science supporting each standard and should be done after identification and assessment of available scientific evidence is documented in the criteria documents and staff papers.

131999

National Forests: Estimated Costs and Results of Alternative Silvicultural Treatments. RCED-87-61FS; B-225882. December 30, 1986.

Released January 14, 1987. 25 pp. plus 1 appendix (1 p.). *Fact Sheet* to Rep. James H. Weaver, Chairman, House Committee on Interior and Insular Affairs: General Oversight, Northwest Power, and Forest Management Subcommittee; by Brian P. Crowley, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to CED-81-46, April 17, 1981, Accession Number 115126.

Issue Area: Food and Agriculture: Satisfying U.S. Rural Development and Rural Infrastructure Objectives (6511).

Contact: Resources, Community, and Economic Development Division.
Budget Function: Natural Resources and Environment: Conservation and Land Management (302.0).
Organization Concerned: Forest Service.
Congressional Relevance: *House* Committee on Interior and Insular Affairs: General Oversight, Northwest Power, and Forest Management Subcommittee; *Rep.* James H. Weaver.
Abstract: Pursuant to a congressional request, GAO reviewed per-acre cost information on the Forest Service's use of herbicides and alternative treatment methods for site preparation, release, and thinning activities for six forests in the Pacific Northwest.
Findings/Conclusions: GAO noted that cost comparisons between each forest may be inaccurate and limit the usefulness of the data because costs vary due to the different physical characteristics of each forest. GAO found that: (1) the Siuslaw National Forest significantly reduced its herbicide program in fiscal year 1983, and used manual or mechanical methods on acres that would normally have used herbicides; (2) the Forest Service accounting system did not separate out its administrative costs; and (3) manual or mechanical applications normally require more follow-up treatments and ultimately realize less timber growth and harvest levels than herbicide applications, but the cost data for those treatments were not available.

132009

Hazardous Waste: EPA Has Made Limited Progress in Determining the Wastes To Be Regulated. RCED-87-27; B-224640. December 23, 1986.
Released January 20, 1987. 54 pp. plus 1 appendix (1 p.). *Report* to Rep. James J. Florio, Chairman, House Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-88-101, August 16, 1988, Accession Number 136581.

Issue Area: Environment: Assessing EPA Implementation of Hazardous and Solid Waste Management Mandates (6811).
Contact: Resources, Community, and Economic Development Division.
Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).
Organization Concerned: Environmental Protection Agency.
Congressional Relevance: *House* Committee on Energy and Commerce: Transportation and Hazardous Materials Subcommittee; *House* Committee on Government Operations; *House* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *House* Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; *Senate* Committee on Environment and Public Works: Hazardous Waste and Toxic Substances Subcommittee; *Senate* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *Rep.* James J. Florio.
Authority: Resource Conservation and Recovery Act of 1976. Toxic Substances Control Act. Insecticide, Fungicide and Rodenticide Act. Clean Water Act of 1977.
Abstract: In response to a congressional request, GAO reviewed the Environmental Protection Agency's (EPA) efforts to: (1) determine which wastes are hazardous; and (2) produce a biennial report on the types and amounts of hazardous wastes the United States generates, treats, stores, and disposes of nationwide.
Findings/Conclusions: GAO found that: (1) EPA has met some of the deadlines Congress set for considering additional characteristics and reviewing specific wastes; (2) changing approaches or strategies have hampered EPA identification efforts; (3) since large numbers of hazardous wastes remain unidentified, EPA is considering refocusing its approach to develop characteristics through testing and refining the already-listed hazardous wastes; (4) EPA has made limited progress in completing five congressionally mandated studies of large-volume wastes; (5) although Congress required EPA to use more stringent criteria when reviewing petitions to delist wastes, EPA does not have the required information to state authorized delistings; and (6) without proper controls, delisting can negate the efforts of the hazardous waste identification program by allowing facilities handling these wastes to escape regulation.
Recommendation To Agencies: To improve EPA progress in identifying hazardous wastes, the Administrator, EPA, should develop a plan laying out what actions will be necessary to identify the universe of wastes needing control. Such a plan should contain, as a minimum, the additional waste characteristics that need to be developed and the industry waste streams that need to be evaluated, milestones to accomplish these tasks, needed resources, and organizational responsibilities for completing these actions. For the remaining mandated studies or portions of studies yet to be completed, the Administrator, EPA, should develop study plans that include the information requirements the study is to address, milestones for completing the various stages of study, resource needs, and organizational responsibilities. The Administrator, EPA, should determine which wastes have been granted final delistings by states and what criteria were applied to those delistings; assess the potential environmental or health impact of those delistings; and, where appropriate, initiate action to apply the new delisting criteria. The Administrator, EPA, should ensure that: (1) future state-delegated delisting activities are monitored and that information is collected that will allow EPA to identify facilities and wastes delisted; and (2) the review criteria applied are at least as stringent as those set by EPA and are applied consistently. The Administrator, EPA, should increase the number of site visits or implement other controls to ensure that EPA has complete and accurate information when evaluating delisting petitions.

132043

Auto Safety and Emissions: No Assurance That Imported Gray Market Vehicles Meet Federal Standards. RCED-87-29; B-217842. December 11, 1986.
Released January 27, 1987. 24 pp. plus 4 appendices (37 pp.). *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to Testimony, March 6, 1987, Accession Number 132353; and GGD-87-85, July 16, 1987, Accession Number 133465.

Issue Area: Transportation: Adequacy of NHTSA Promotion of Motor Vehicle Safety (6612); Environment: Other Issue Area Work (6891); Tax Policy and Administration: Other Issue Area Work (4691).
Contact: Resources, Community, and Economic Development Division.
Budget Function: Transportation: Ground Transportation (401.0); Natural Resources and Environment: Pollution Control and Abatement (304.0); General Government: Tax Administration (803.1).
Organization Concerned: National Highway Traffic Safety Administration; Environmental Protection Agency;

United States Customs Service; Department of Transportation.

Congressional Relevance: *House* Committee on Government Operations; *House* Committee on Appropriations: Transportation Subcommittee; *House* Committee on Energy and Commerce; *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Senate* Committee on Governmental Affairs; *Senate* Committee on Appropriations: Transportation Subcommittee; *Senate* Committee on Commerce, Science and Transportation; *Rep.* John D. Dingell.

Authority: Traffic and Motor Vehicle Safety Act (15 U.S.C. 1391 et seq.). Clean Air Act (42 U.S.C. 7401 et seq.). S. 863 (99th Cong.). H.R. 2248 (99th Cong.). B-217842 (1986).

Abstract: In response to a congressional request, GAO reviewed how the National Highway Traffic Safety Administration (NHTSA), Environmental Protection Agency (EPA), and U.S. Customs Service carry out their respective responsibilities regarding the Gray Market Vehicle Enforcement Program, specifically: (1) the problems they encounter in administering safety and emission standards; (2) the costs of implementing the program; (3) the extent to which each of the three involved agencies uses contractors for the program and their contract award methods; (4) the extent of coordination between NHTSA, EPA, and Customs; (5) the extent to which the importation of nonconforming vehicles has become a commercial operation; and (6) the extent to which importers can modify nonconforming motor vehicles to conform to emission and safety standards.

Findings/Conclusions: GAO found that: (1) NHTSA does not inspect firms that modify vehicles to ensure that they have the capability to conform the vehicles to the safety standards; (2) NHTSA does not test the vehicles after modifications; (3) EPA has a certification program that recognizes certain firms and laboratories that have the capability to modify the vehicles to meet the emission standards or perform the federal emission test procedures, but does not provide for periodic inspection of the modifying firms or vehicle testing; (4) NHTSA and EPA had not timely submitted documentation for 21 of 50 vehicles GAO reviewed; (5) the adequacy and accuracy of the documents substantiating that 29 vehicles conformed with the safety standards was questionable; (6) EPA could not locate emission compliance documentation for 26 vehicles; (7) EPA granted 24 exemptions on the basis of the vehicles' ages and on test results EPA-recognized testing laboratories submitted; and (8) in a 1984 study, only 1 of 27 gray market vehicles that EPA initially approved after laboratory tests passed all parts of the emission test. GAO also found that Congress proposed legislation that would: (1) require NHTSA to provide greater assurance of proper modification of gray market vehicles to meet safety standards; (2) restrict the importation of vehicles that did not conform to safety standards; and (3) establish eligibility controls over consumer importation of nonconforming vehicles.

Recommendation To Agencies: The Secretary of Transportation should direct the Administrator, NHTSA, to improve controls over its program by establishing a process similar to the EPA program, whereby firms are recognized by NHTSA, through certification, as being capable of modifying gray market vehicles. In addition, NHTSA should periodically reinspect these firms and consider testing a sample of modified vehicles as a check on each firm's performance in ensuring vehicle compliance with the safety standards. In considering the appropriate scope, frequency, and amount of testing, NHTSA should take into account factors such as staffing constraints, as well as the safety standards for which compliance testing is technically practical and cost-effective. The Administrator, EPA, should improve the controls over its program by periodically inspecting both the modifying firms and test laboratories that have been previously recognized and consider testing the vehicles, on a sample basis, to ensure compliance with federal emission standards. In considering the scope and amount of testing, various factors should be taken into account, including staffing constraints and the costs of such testing.

132140

Nuclear Waste: Institutional Relations Under the Nuclear Waste Policy Act of 1982. RCED-87-14; B-202377. February 9, 1987. 57 pp. plus 2 appendices (3 pp.). *Report* to Sen. J. Bennett Johnston, Chairman, Senate Committee on Energy and Natural Resources; Sen. James A. McClure, Ranking Minority Member, Senate Committee on Energy and Natural Resources; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-85-100, September 30, 1985, Accession Number 128021; EMD-79-77, June 21, 1979, Accession Number 109784; RCED-86-4, April 1, 1986, Accession Number 129698; RCED-87-139FS, May 13, 1987, Accession Number 132947; RCED-87-17, April 15, 1987, Accession Number 132701; RCED-87-103FS, March 20, 1987, Accession Number 132594; and RCED-88-131, September 28, 1988, Accession Number 136919.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).

Organization Concerned: Department of Energy; Department of Energy: Office of Civilian Radioactive Waste Management.

Congressional Relevance: *House* Committee on Appropriations: Energy and Water Development Subcommittee; *House* Committee on Interior and Insular Affairs; *House* Committee on Energy and Commerce; *Senate* Committee on Appropriations: Energy and Water Development Subcommittee; *Senate* Committee on Energy and Natural Resources; *Sen.* James A. McClure; *Sen.* J. Bennett Johnston.

Authority: Price-Anderson Act (Atomic Energy Damages). Nuclear Waste Policy Act of 1982 (P.L. 97-425; 42 U.S.C. 10101 et seq.; 96 Stat. 2201).

Abstract: In response to a congressional request to assess the Department of Energy's (DOE) relations with the states and Indian tribes that its Nuclear Waste Repository Program affects, GAO: (1) identified the states' and tribes' concerns with the program, including their level of participation in the decisionmaking process for waste sites; (2) examined the DOE program for involving states and tribes and the DOE positions on their concerns; and (3) determined what steps DOE should take to improve its program.

Findings/Conclusions: GAO found that the states and tribes involved in the program: (1) were concerned about the potential environmental and socioeconomic impacts of siting a nuclear waste repository in their region because they did not believe that it could safely withstand groundwater seepage and other natural phenomena and prevent radiation from escaping to the surrounding environment; (2) believed that DOE restricted them from participation in making decisions that affected them, particularly in the first repository siting process; and (3) claimed that the DOE Mission Plan was deficient

and vague. GAO noted that DOE claimed that attempts to negotiate formal agreements with states and tribes have been unsuccessful because of controversial issues such as federal liability, and because states and tribes were reluctant to agree with DOE concerning nuclear waste issues. DOE cited numerous steps it took over the past 2 years to involve states and tribes in the program, including: (1) holding periodic meetings and using other means to inform states and tribes and obtain input on program activities; (2) issuing detailed comment response documents to inform states and tribes about the disposition of their comments on program documents; (3) allowing states and tribes to participate in internal DOE management groups considering environmental issues and other relevant matters; and (4) using an independent peer group to review the DOE decision-aiding methodology for repository site selection.

Recommendation To Agencies: The Secretary of Energy should take steps to improve DOE efforts to involve affected states and Indian tribes in the nuclear waste program and to enhance the overall credibility of the program by providing states and tribes access, at least on a trial basis, to all of the Office of Civilian Radioactive Waste Management's (OCRWM) coordinating group meetings. The Secretary of Energy should take steps to improve DOE efforts to involve affected states and Indian tribes in the nuclear waste program and to enhance the overall credibility of the program by employing independent advisory groups during site characterization and other program activities. The Secretary of Energy should take steps to improve DOE efforts to involve affected states and Indian tribes in the nuclear waste program and to enhance the overall credibility of the program by adopting a strategy of negotiating incremental agreements with the states and tribes in an effort to build a foundation for resolving controversial issues. The Secretary of Energy should take steps to improve DOE efforts to involve affected states and Indian tribes in the nuclear waste program and to enhance the overall credibility of the program by better defining consultation and cooperation in the Mission Plan.

132154

Contracts: Status of EPA's Contract Management Improvement Program. RCED-87-68FS; B-217137. January 12, 1987.

Released February 11, 1987. 25 pp. plus 1 appendix (1 p.). *Fact Sheet* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-85-12, January 4, 1985, Accession Number 126028; and RCED-88-182, July 29, 1988, Accession Number 136756.

Issue Area: Environment: Other Issue Area Work (6891); Civil Procurement and Property Management: Other Issue Area Work (4991).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Rep.* John D. Dingell.

Authority: Competition in Contracting Act of 1984. Federal Managers' Financial Integrity Act of 1982. F.A.R. 44.302.

Abstract: Pursuant to a congressional request, GAO reviewed: (1) whether the Environmental Protection Agency (EPA) has established the proper controls to ensure high-quality, cost-efficient and timely contract work; and (2) EPA efforts to improve contract management.

Findings/Conclusions: GAO found that EPA has: (1) increased its resources for contract management and generally strengthened requirements, training, and certification of contracting officers; (2) strengthened its project officer system, but project officer training is still in process; (3) provided additional technical guidance and assessments by issuing instructions and policy statements on contract award and administration; and (4) identified active contracts that have several deficiencies in post-award contract administration, such as improper file documentation.

132177

Hazardous Waste: DOD Efforts To Preclude Disposal of Contaminated Property Need Improvement. NSIAD-87-45; B-221137. December 15, 1986.

Released February 13, 1987. 28 pp. plus 1 appendix (1 p.). *Report* to Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by Bill W. Thurman, (for Frank C. Conahan, Assistant Comptroller General), National Security and International Affairs Division. Refer to NSIAD-86-23BR, December 6, 1985, Accession Number 128786; and T-RCED-88-24, March 10, 1988, Accession Number 135246.

Issue Area: Environment: Other Issue Area Work (6891); Air Force: Other Issue Area Work (5491).

Contact: National Security and International Affairs Division.

Budget Function: National Defense: Defense-Related Activities (054.0).

Organization Concerned: Department of Defense; General Services Administration.

Congressional Relevance: *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *Rep.* Michael L. Synar.

Authority: Resource Conservation and Recovery Act of 1976. Toxic Substances Control Act. Clean Air Act Amendments of 1970. Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Property and Administrative Services Act.

Abstract: In response to a congressional request, GAO evaluated the Department of Defense's (DOD) efforts to preclude the disposal of contaminated excess real property.

Findings/Conclusions: GAO noted that federal property management regulations require federal agencies to report excess property to the General Services Administration (GSA), including whether the property's present condition would be hazardous to health and safety. GAO found that: (1) the military services' reports were often either missing or incomplete; (2) because the services have conducted incomplete inspections, they may risk exposing the public to hazardous waste contamination and increase the government's potential liability for future cleanups; (3) since excess real properties can be part of active installations, they are sometimes located in the vicinity of potential hazardous waste sites; and (4) the services do not require evaluations of the effects of possible contamination migration, although state environmental officials believe that migration could affect excess real property and the government's liability for future decontamination expenses.

Recommendation To Agencies: The Secretary of Defense should direct the services to: (1) require that both records searches and visual inspections be performed and documented; (2) mutually agree to and use consistent criteria in the identification of potential

contamination and certification of excess real property; and (3) update disposal documentation for excess real properties that are still in the disposal process to conform with current requirements. The Secretary of Defense should emphasize to the services the importance of disclosing to GSA the potential contamination on the excess property identified through a records search and a visual inspection, actions taken to confirm the extent of contamination, and plans for any necessary decontamination. The Secretary of Defense should direct the services to require in their disposal policies, and fully disclose to GSA, an evaluation of any potential contamination migrating from hazardous waste sites in the vicinity of the excess property.

132187

Nuclear Weapons: Emergency Preparedness Planning for Accidents Can Be Better Coordinated. NSIAD-87-15; B-224658. February 10, 1987. 40 pp. plus 8 appendices (30 pp.). *Report* to Rep. Sala Burton; Rep. Ronald V. Dellums; Rep. Don Edwards; by Frank C. Conahan, Assistant Comptroller General, National Security and International Affairs Division. Refer to EMD-78-110, March 30, 1979, Accession Number 108990; RCED-84-43, August 1, 1984, Accession Number 124844; RCED-85-1, April 18, 1985, Accession Number 126763; NSIAD-85-123, July 29, 1985, Accession Number 127562; RCED-86-15, November 8, 1985, Accession Number 128548; and NSIAD-86-146, June 3, 1986, Accession Number 130068.

Issue Area: Navy: Other Issue Area Work (5691).

Contact: National Security and International Affairs Division.

Budget Function: National Defense: Atomic Energy Defense Activities (053.0).

Organization Concerned: Department of Defense; Department of the Navy.

Congressional Relevance: *Rep.* Don Edwards; *Rep.* Ronald V. Dellums; *Rep.* Sala Burton.

Abstract: In response to a congressional request, GAO reviewed the Department of Defense's (DOD) policies and practices for coordinating emergency planning for nuclear weapon accidents with states and localities.

Findings/Conclusions: GAO found that: (1) although the Air Force coordinates its emergency planning for all types of disasters, the Army and Navy generally exclude state and local governments from coordinated planning efforts for national security reasons; (2) some state and local emergency preparedness officials desire more communication with Army and Navy installations in emergency planning; (3) a national nuclear weapon accident exercise showed a need for more coordination because of the complexities involved in responding to such accidents and the hazards of radioactive contamination; (4) the services and civilian authorities coordinate emergency planning for other disasters; and (5) the Army and Navy could achieve emergency planning with states and localities for accidents involving nuclear weapons without violating DOD security policies.

Recommendation To Agencies: The Secretary of Defense should direct the Secretary of the Navy to ensure that officials at its home ports for nuclear-capable ships allow the opportunity for state and local authorities to coordinate emergency plans for nuclear weapon accidents by sharing unclassified planning information regarding such factors as: (1) the potential hazards associated with such accidents; (2) accident notification policies and procedures; (3) DOD response capabilities; and (4) procedures for requesting assistance. The Secretary of Defense should direct the Secretary of the Navy to ensure that officials at its home ports for nuclear-capable ships allow the opportunity for state and local authorities to coordinate emergency plans for nuclear weapon accidents by allowing for state and local participation in installation response exercises.

132206

Nuclear Waste: Quarterly Report on DOE's Nuclear Waste Program as of December 31, 1986. RCED-87-95FS; B-202377. February 19, 1987. 22 pp. plus 1 appendix (1 p.). *Fact Sheet* to Sen. J. Bennett Johnston, Chairman, Senate Committee on Energy and Natural Resources; Sen. James A. McClure, Ranking Minority Member, Senate Committee on Energy and Natural Resources; by Keith O. Fultz, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-85-100, September 30, 1985, Accession Number 128021; RCED-87-48FS, November 5, 1986, Accession Number 131594; RCED-86-206FS, August 11, 1986, Accession Number 130696; RCED-86-154FS, April 30, 1986, Accession Number 129833; and RCED-86-86, January 31, 1986, Accession Number 129261. Also refers to numerous other GAO reports on nuclear waste.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).

Organization Concerned: Department of Energy: Office of Civilian Radioactive Waste Management; Tennessee.

Congressional Relevance: *Senate* Committee on Energy and Natural Resources; *Sen.* James A. McClure; *Sen.* J. Bennett Johnston.

Authority: Nuclear Waste Policy Act of 1982 (P.L. 97-425). Safe Drinking Water Act. 10 C.F.R. 60.

Abstract: Pursuant to a congressional request, GAO provided its quarterly status report on the Department of Energy's (DOE) implementation of its nuclear waste management program for the quarter ended December 31, 1986.

Findings/Conclusions: GAO found that: (1) the DOE Office of Civilian Radioactive Waste Management, which is primarily responsible for DOE nuclear waste activities, focused its efforts on preparing site characterization plans for the three sites deemed acceptable for a first waste repository; (2) DOE established a separate division to manage issues related to repository technology and the transportation of high-level radioactive waste; (3) a federal circuit court overturned a district court decision that DOE failed to properly consult with Tennessee before submitting a monitored retrievable storage proposal, but Tennessee received a stay to allow it time for further appeals; (4) DOE released a draft amendment to its Mission Plan that would extend for 5 years its target date for initiating repository operations; (5) 8 new program-related legal actions were filed in federal courts during the quarter, bringing the total number of pending lawsuits to 43; and (6) the Nuclear Waste Fund collected over $175.2 million in fees and investment income, obligated about $171 million for program activities, and had a balance of about $1.5 billion at the end of the quarter.

132227

Parks and Recreation: Limited Progress Made in Documenting and Mitigating Threats to the Parks.

RCED-87-36; B-223669. February 9, 1987.

Released February 24, 1987. 49 pp. plus 8 appendices (22 pp.). *Report* to Rep. Bruce F. Vento, Chairman, House Committee on Interior and Insular Affairs: National Parks and Recreation Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to CED-80-115, October 10, 1980, Accession Number 113935; and RCED-84-107, June 1, 1984, Accession Number 124353.

Issue Area: Natural Resources Management: Effectiveness and Efficiency of Federal Land Management Agencies in Developing, Operating, and Maintaining Federal Parks and Recreation Areas (6915).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Recreational Resources (303.0).

Organization Concerned: National Park Service; Department of the Interior.

Congressional Relevance: *House* Committee on Appropriations: Interior Subcommittee; *House* Committee on Interior and Insular Affairs: Public Lands and National Parks Subcommittee; *Senate* Committee on Appropriations: Interior Subcommittee; *Senate* Committee on Energy and Natural Resources: Public Lands, National Parks and Forests Subcommittee; *Rep.* Bruce F. Vento.

Authority: National Park Service Organic Act (16 U.S.C. 1). National Parks and Recreation Act of 1978 (P.L. 95-625). P.L. 95-250.

Abstract: In response to a congressional request, GAO provided information on: (1) National Park Service (NPS) actions to address threats to the National Park System's natural and cultural resources; and (2) the extent to which current legislation obligates NPS to intercede in outside actions that would affect park resources.

Findings/Conclusions: GAO found that: (1) although NPS required each park to complete a resource management plan by the end of 1981 and update it annually, only half met the original deadline, and NPS did not use the completed plans in formulating its annual budget; (2) NPS failed to follow through on the initiatives for improving resource information and increasing scientific research, but has undertaken the training initiatives; (3) neither NPS nor the individual parks kept track of their progress in addressing the threats to their resources that a 1980 report identified; (4) the NPS budget for resource management increased from $44 million in 1980 to $93 million in 1984; (5) the parks used additional funds to remove harmful plants and animals and repair deteriorating historic structures; (6) as of December 1985, NPS had not resolved 80 percent of the threats reported in 1980; and (7) NPS did not receive funding for many of its proposed projects to address known and potential resource problems.

Recommendation To Agencies: To provide the information needed for NPS to develop a comprehensive, systemwide approach to protect and manage park resources and to provide the basis to make more informed funding decisions, the Secretary of the Interior should direct the Director, NPS, to enforce the agency's requirement that resource management plans (RMP) be prepared and updated in accordance with established NPS guidance and criteria at each park unit. To provide the information needed for NPS to develop a comprehensive, systemwide approach to protect and manage park resources and to provide the basis to make more informed funding decisions, the Secretary of the Interior should direct the Director, NPS, to improve procedures on the use of the information provided in the resource management plans to: (1) identify and prioritize cultural and natural resource management needs on a regional and servicewide basis; and (2) prepare annual budget requests. The quality of the resource management plans depends on the adequacy of the resource information upon which it is based. Therefore, to ensure that the plans are based on adequate information and to establish basic accountability for park resources, the Secretary of the Interior should direct the Director, NPS, to develop standards for determining the minimum baseline information needed to properly plan for the management and protection of park resources. The quality of the resource management plans depends on the adequacy of the resource information upon which it is based. Therefore, to ensure that the plans are based on adequate information and to establish basic accountability for park resources, the Secretary of the Interior should direct the Director, NPS, to assess the adequacy of each park's information base in relation to the standards so developed. The quality of the resource management plans depends on the adequacy of the resource information upon which it is based. Therefore, to ensure that the plans are based on adequate information and to establish basic accountability for park resources, the Secretary of the Interior should direct the Director, NPS, to take action to improve park information bases that are found not up to the standards. The quality of the resource management plans depends on the adequacy of the resource information upon which it is based. Therefore, to ensure that the plans are based on adequate information and to establish basic accountability for park resources, the Secretary of the Interior should direct the Director, NPS, to develop and implement long-term programs to monitor resource condition changes over time.

132256

Hazardous Waste: Enforcement of Certification Requirements for Land Disposal Facilities. RCED-87-60BR; B-221403. January 27, 1987.

Released February 26, 1987. 58 pp. plus 7 appendices (8 pp.). *Briefing Report* to Rep. James J. Florio, Chairman, House Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to T-RCED-88-13, December 15, 1987, Accession Number 134631.

Issue Area: Environment: Assessing EPA Implementation of Hazardous and Solid Waste Management Mandates (6811).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce: Commerce, Transportation, and Tourism Subcommittee; *Rep.* James J. Florio.

Authority: Resource Conservation and Recovery Act of 1976.

Abstract: In response to a congressional request, GAO evaluated the Environmental Protection Agency's (EPA) enforcement of the Resource Conservation and Recovery Act's certification requirements for owners of hazardous waste land disposal facilities operating under interim status.

Findings/Conclusions: GAO found that EPA: (1) targeted facilities for priority inspection or review on the basis of indications that the facilities might have certified falsely; (2) did not close facilities considered to be out of compliance if technical complexities made it difficult to prove that a violation existed, the violation was minor, or if

EPA or the state had erroneously informed the facility that it was in compliance prior to its certification; (3) targeted noncertifying facilities for priority inspection when it suspected that they were operating illegally; (4) generally performed site visits to determine whether noncertifying facilities had ceased operating; (5) regional office criteria for targeting facilities were reasonable; and (6) assessed penalties and took actions to close some of the noncertifying facilities that continued to operate, and planned action against the others. GAO also found that: (1) EPA closure activities include removing waste, capping disposal facilities, and decontaminating the equipment used to close the facility; (2) actual closure progress was far behind the EPA regulatory timetable; and (3) EPA estimated that closure work would continue into 1990.

132294

Nuclear Health and Safety: DOE's Progress in Implementing Its 1985 Initiatives. RCED-87-73FS; B-222195. March 3, 1987. 11 pp. plus 1 appendix (1 p.). *Fact Sheet* to Sen. John H. Glenn, Chairman, Senate Committee on Governmental Affairs; by Keith O. Fultz, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-86-68FS, March 4, 1986, Accession Number 129344.

Issue Area: Energy: Other Issue Area Work (6491).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).

Organization Concerned: Department of Energy.

Congressional Relevance: *Senate* Committee on Governmental Affairs; *Sen.* John H. Glenn.

Authority: Resource Conservation and Recovery Act of 1976. Clean Air Act. Comprehensive Environmental Response, Compensation, and Liability Act of 1980. DOE Order 5480.1B. DOE Order 5480.5. DOE Order 5480.6. DOE Order 5482.1B. DOE Order 5700.6B. DOE Order 5480.2. DOE Order 5420.14. DOE Order 5480. DOE Order 5481.1B.

Abstract: Pursuant to a congressional request, GAO monitored the Department of Energy's (DOE) implementation of initiatives to strengthen environmental, safety, and health (ES&H) programs, to provide information on: (1) the status of the initiatives; and (2) planned DOE actions to complete the initiatives. Findings/Conclusions: GAO found that DOE has: (1) made progress in implementing all but one of the initiatives; (2) completed reorganization of ES&H activities; (3) revised six ES&H orders governing the conduct of its operations; (4) completed field work for its environmental surveys at eight facilities; (5) completed safety technical proposals for 10 facilities; (6) begun operating an ES&H information reporting and tracking system; and (7) issued several specific environmental memorandums to field offices governing various environmental aspects of its operations. GAO noted that DOE has not yet developed a plan outlining specific ES&H training needs.

132295

[Department of the Army's Chemical Munitions Disposal Program]. T-NSIAD-87-6. March 3, 1987. 14 pp. *Testimony* before the Senate Committee on Appropriations: Military Construction Subcommittee; by Thomas J. Brew, Associate Director, National Security and International Affairs Division. Refer to T-NSIAD-88-2, October 19, 1987, Accession Number 134159.

Contact: National Security and International Affairs Division.

Organization Concerned: Department of the Army.

Congressional Relevance: *Senate* Committee on Appropriations: Military Construction Subcommittee.

Authority: Environmental Policy Act of 1969 (National). P.L. 99-145.

Abstract: GAO testified on the Army's draft environmental statement on its chemical munitions stockpile disposal program, specifically whether: (1) the supporting documentation fully addressed all aspects of risk assessment; (2) the cost data were fully supportable and reasonable; (3) the current incineration technology has full-scale production capabilities; (4) the Army is seriously considering other destruction technologies; and (5) the Army will be able to meet the mandated 1994 destruction deadline. GAO found that the Army: (1) calculated accident probabilities for M55 rockets only in its hazard and risk analyses; (2) did not identify some potential accident scenarios for the regional and national disposal options; (3) did not fully assess emergency response activities; (4) failed to describe its air monitoring technology and limitations in the draft environmental statement; (5) underestimated its transportation costs because it did not include considerations such as an emergency response for communities along the rail transportation routes and necessary upgrade or repair of railroad lines; (6) underestimated costs for procuring and installing equipment; (7) did not develop its chemical agency munitions disposal system with full-scale production capabilities; (8) is considering the baseline technology and the cryofracture technology as two disposal methods; and (9) is experiencing delays in obtaining environmental permits, which will result in construction delays and the possibility that it will not meet its 1994 disposal deadline.

132296

[Department of the Army's Chemical Munitions Disposal Program]. T-NSIAD-87-7. March 4, 1987. 14 pp. *Testimony* before the House Committee on Armed Services: Investigations Subcommittee; by Thomas J. Brew, Associate Director, National Security and International Affairs Division. Refer to T-NSIAD-88-2, October 19, 1987, Accession Number 134159.

Contact: National Security and International Affairs Division.

Organization Concerned: Department of the Army.

Congressional Relevance: *House* Committee on Armed Services: Investigations Subcommittee.

Authority: Environmental Policy Act of 1969 (National). P.L. 99-145.

Abstract: GAO testified on the Army's draft environmental statement on its chemical munitions stockpile disposal program, specifically whether: (1) the supporting documentation fully addressed all aspects of risk assessment; (2) the cost data were fully supportable and reasonable; (3) the current incineration technology has full-scale production capabilities; (4) the Army is seriously considering other destruction technologies; and (5) the Army will be able to meet the mandated 1994 destruction deadline. GAO found that the Army: (1) calculated accident probabilities for M55 rockets only in its hazard and risk analyses; (2) did not identify some potential accident scenarios for the regional and national disposal options; (3) did not fully assess emergency response activities; (4) failed to describe its air monitoring technology and limitations in the draft environmental statement; (5) underestimated its transportation costs because it did not include considerations such as an emergency response for

communities along the rail transportation routes and necessary upgrade or repair of railroad lines; (6) underestimated costs for procuring and installing equipment; (7) did not develop its chemical agency munitions disposal system with full-scale production capabilities; (8) is considering the baseline technology and the cryofracture technology as two disposal methods; and (9) is experiencing delays in obtaining environmental permits, which will result in construction delays and the possibility that it will not meet its 1994 disposal deadline.

132339

Surface Mining: State Management of Abandoned Mine Land Funds. RCED-87-57; B-226046. February 6, 1987.

Released March 9, 1987. 40 pp. plus 1 appendix (1 p.). *Report* to Rep. Morris K. Udall, Chairman, House Committee on Interior and Insular Affairs; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division.

Issue Area: Natural Resources Management: OSM and State Effectiveness in Meeting Regulatory Responsibilities Under SMCRA (6910).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Conservation and Land Management (302.0).

Organization Concerned: Department of the Interior; Department of the Interior: Office of Surface Mining Reclamation and Enforcement.

Congressional Relevance: *House* Committee on Appropriations: Interior Subcommittee; *House* Committee on Interior and Insular Affairs; *Senate* Committee on Appropriations: Interior Subcommittee; *Senate* Committee on Energy and Natural Resources; *Rep.* Morris K. Udall.

Authority: Surface Mining Control and Reclamation Act of 1977. Single Audit Act of 1984 (31 U.S.C. 7501). Federal Managers' Financial Integrity Act of 1982. Intergovernmental Cooperation Act of 1968. OMB Circular A-102. OMB Circular A-128.

Abstract: In response to a congressional request, GAO evaluated how effectively states manage their abandoned mine reclamation funds, specifically whether they: (1) have adequate financial controls to ensure the proper use of reclamation funds; (2) are reclaiming eligible sites in proper priority sequence; (3) are managing projects in accordance with federal procurement, monitoring, and reporting standards; and (4) are correcting problems through completed projects.

Findings/Conclusions: GAO reviewed five states' reclamation programs and found that: (1) the states implemented financial control procedures and practices to ensure the proper expenditure of reclamation funds; (2) only one state complied with all related grant payment, audit, and inventory requirements; (3) the states generally reclaimed eligible, high-priority projects; (4) the states managed their reclamation projects in compliance with applicable procurement and project monitoring standards, except for Kentucky's selection of design contractors, which lacked documentation; (5) the states conducted inspections both immediately after completing construction and later to ensure that projects successfully resolved their reclamation problems; and (6) although none of the states compiled summary data, most completed projects successfully reduced the number of problems. GAO noted that it could not readily assess the overall success of the projects in reducing identified problems because summary data were not available.

Recommendation To Agencies: The Secretary of the Interior should require the Director, Office of Surface Mining Reclamation and Enforcement (OSMRE), to emphasize to the states the importance of complying with Office of Management and Budget (OMB) Circular A-102 requirements related to disbursing federal grant funds in a timely manner, inventorying physical equipment, and conducting audits. To ensure that states have taken any necessary steps to bring their programs into compliance, the Director, OSMRE, should follow up on their compliance as part of Interior's annual oversight evaluations. To correct remaining weaknesses in state management of abandoned mine lands projects and OSMRE oversight of that management, the Secretary of the Interior should require the Director, OSMRE, to: (1) direct those states, like Kentucky, that do not comply with federal procurement standards, to bring their programs into compliance; (2) direct the states to provide all information required by federal performance reporting standards in the states' semiannual reports on specific projects to OSMRE; and (3) strongly encourage those states not documenting the results of post-construction inspections to begin doing so.

132353

[NHTSA Oversight and Management of Its Vehicle Safety Compliance and Gray Market Programs]. T-RCED-87-3. March 6, 1987. 10 pp. *Testimony* before the Senate Committee on Commerce, Science and Transportation: Consumer Subcommittee; by Herbert R. McLure, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-87-29, December 11, 1986, Accession Number 132043; and RCED-87-2, December 15, 1986, Accession Number 131786.

Contact: Resources, Community, and Economic Development Division.

Organization Concerned: National Highway Traffic Safety Administration; Environmental Protection Agency; United States Customs Service; Department of the Treasury.

Congressional Relevance: *Senate* Committee on Commerce, Science and Transportation: Consumer Subcommittee.

Abstract: GAO testified on the National Highway Traffic Safety Administration's (NHTSA) oversight and management of its vehicle safety compliance and gray market programs. GAO found that: (1) individuals imported only 23,900 gray market vehicles in 1986 due to the strong U.S. dollar in the foreign market; (2) NHTSA does not inspect firms that modify vehicles to ensure that they have the capability to conform the vehicles to the safety standards or test vehicles to determine that they did the modifications properly; (3) although the Environmental Protection Agency's (EPA) certification program has more internal controls than does NHTSA, it does not provide for periodic inspection of the modifying firms or testing of the vehicles; (4) substantial percentages of gray market vehicles that NHTSA and EPA approve do not conform to the federal standards; (5) NHTSA has not selected 10 of its 39 testable safety standards for testing for periods ranging from 5 to 17 years and has never tested three additional testable standards; (6) NHTSA has developed neither milestones nor standard procedures for processing noncompliance investigation and civil penalty cases; and (7) NHTSA lacks guidelines concerning which investigation cases it should forward to its Chief Counsel's office for penalty assessment. GAO also found that: (1) neither NHTSA nor EPA have responded to its recommendations to improve internal controls; and (2) the Department of Transportation plans to implement GAO recommendations to

ensure testing of safety standards over a period of time and develop milestones and procedures for processing and monitoring investigation and civil penalty cases.

132383

[Management and Safety Issues Concerning DOE's Production Reactors at Savannah River, S.C.] T-RCED-87-5. March 12, 1987. 12 pp. *Testimony* before the Senate Committee on Governmental Affairs; by Keith O. Fultz, Associate Director, Resources, Community, and Economic Development Division. Refer to T-RCED-88-30, March 31, 1988, Accession Number 135455; and RCED-88-137, July 13, 1988, Accession Number 136307.

Contact: Resources, Community, and Economic Development Division.

Organization Concerned: Department of Energy: Savannah Nuclear Power Station; E.I. du Pont de Nemours and Co., Inc.

Congressional Relevance: *Senate* Committee on Governmental Affairs.

Abstract: GAO discussed its ongoing audit of the Department of Energy's (DOE) production reactors at its Savannah River Plant, specifically: (1) the testing methods DOE uses to determine potential cracks in the reactor tank walls; (2) a recent reduction in the operating power of the plant's reactors for safety reasons; and (3) the lack of prompt management attention in addressing reactor operations and maintenance problems. GAO found that: (1) the contractor operating the plant for DOE relies on a visual method for testing for cracks, which does not ensure identification of all the weld areas; (2) the commercial nuclear industry and the Nuclear Regulatory Commission feel that the ultrasonic method is the preferred inspection method; (3) the plant operator does not plan to begin even partial ultrasonic testing until 1988; (4) in 1986, the plant operator reduced the operating reactors' power levels by 26 percent after a review raised questions about the emergency cooling system's ability to prevent a fuel meltdown during an accident; and (5) the reactors had operated for about 6 years at a power level that may have been unsafe in the event of an accident. GAO noted that management inattention may have contributed to several problems including: (1) a backlog of recommended actions stemming from the reactor incident report system; (2) inadequate information and guidance concerning reactor repairs and maintenance; and (3) inadequate on-the-job training for mechanics.

132384

[Environmental, Safety, and Health Aspects of the Department of Energy's Nuclear Defense Complex]. T-RCED-87-4. March 12, 1987. 14 pp. plus 1 attachment (2 pp.). *Testimony* before the Senate Committee on Governmental Affairs; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-86-175, June 16, 1986, Accession Number 130260; RCED-86-213BR, August 5, 1986, Accession Number 130662; EMD-81-108, August 4, 1981, Accession Number 115979; RCED-86-192, September 8, 1986, Accession Number 131121; RCED-86-90, March 21, 1986, Accession Number 130087; RCED-87-30, November 4, 1986, Accession Number 131661; T-RCED-88-30, March 31, 1988, Accession Number 135455; T-RCED-87-12, March 25, 1987, Accession Number 132484; RCED-88-130, March 28, 1988, Accession Number 135666; T-RCED-88-61, August 23, 1988, Accession Number 136742; and numerous reports related to environmental, safety, and health aspects of Department of Energy operations.

Contact: Resources, Community, and Economic Development Division.

Organization Concerned: Department of Energy.

Congressional Relevance: *Senate* Committee on Governmental Affairs.

Authority: Clean Water Act of 1977. Resource Conservation and Recovery Act of 1976. Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

Abstract: GAO testified on environmental, safety, and health aspects of the Department of Energy's (DOE) nuclear defense complex. GAO found that DOE has: (1) operated reactors beyond their expected lifetimes; (2) processed plutonium in old facilities; and (3) depended too heavily on visual inspections to detect cracks in reactor vessels. GAO noted that: (1) DOE inattention to environmental problems caused by facility operations has created an undefined backlog of needed cleanup actions; and (2) DOE will spend billions of dollars remodeling or building new facilities so that they comply with environmental laws. GAO stressed the need for DOE to allow outside independent reviews of its defense production activities to ensure that they are safe and environmentally acceptable. GAO concluded that DOE needs an overall strategic plan that includes: (1) projected facility requirements for continued nuclear weapons production; (2) the extent of the environmental and safety issues it faces; and (3) actions it needs to take to ensure safe operation of its facilities.

132405

[Environmental Aspects of the Department of Energy's Nuclear Defense Activities]. T-RCED-87-7. March 17, 1987. 12 pp. plus 2 attachments (2 pp.). *Testimony* before the Senate Committee on Governmental Affairs; by Keith O. Fultz, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-86-51FS, November 29, 1985, Accession Number 128653; RCED-86-61, December 13, 1985, Accession Number 128807; RCED-86-143, July 29, 1986, Accession Number 130648; RCED-86-192, September 9, 1986, Accession Number 131121; RCED-87-30, November 4, 1986, Accession Number 131661; and RCED-86-90, March 21, 1986, Accession Number 130087.

Contact: Resources, Community, and Economic Development Division.

Organization Concerned: Department of Energy.

Congressional Relevance: *Senate* Committee on Governmental Affairs.

Authority: Clean Air Act. Clean Water Act of 1977. Resource Conservation and Recovery Act of 1976. Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

Abstract: GAO discussed its work concerning environmental aspects of the Department of Energy's (DOE) nuclear defense facilities. GAO found that, because DOE has not given sufficient emphasis to environmental protection at its facilities: (1) their operations have contaminated groundwater and soil with high levels of both radioactive and hazardous substances; (2) the facilities do not fully comply with environmental laws; (3) it will have to spend billions of dollars to acquire the necessary environmental permits, change some of its operating and disposal practices, and clean up existing contamination; and (4) some sites may be irreversibly contaminated and may require long-term institutional control. GAO believes that DOE should: (1) provide Congress with a comprehensive report on its plans, milestones, and cost estimates to bring its facilities into full compliance with

applicable environmental laws; and (2) develop an overall groundwater and soil protection strategy. GAO believes that this will provide Congress and DOE with a better perspective on the environmental risks and impacts of DOE operations and of the budgetary implications and time frames associated with the cleanup activities required.

132422

Air Pollution: EPA Enforcement of Air Quality at the Port of Stockton, California. RCED-87-85FS; B-222019. February 20, 1987.

Released March 17, 1987. 10 pp. plus 1 appendix (1 p.). *Fact Sheet* to Rep. Norman D. Shumway; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division.

Issue Area: Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Stockton, Ca.: Port of Stockton; Environmental Protection Agency: Region IX, San Francisco, CA; California: Air Resources Board.

Congressional Relevance: *Rep.* Norman D. Shumway.

Authority: Clean Air Act. 40 C.F.R. 52.233(g).

Abstract: In response to a congressional request, GAO investigated allegations by the Director, Port of Stockton, California, that the Environmental Protection Agency (EPA) was inequitably enforcing the Clean Air Act. Findings/Conclusions: GAO found that: (1) the controversy over the Port of Stockton's compliance with air quality emission standards has existed for many years; (2) the port's director contended that EPA and California air pollution control officials unfairly scrutinized the port while other California ports violated air quality emission standards; (3) EPA and California air pollution officials justified repeated inspections of the port on the basis of its past violations; (4) the Department of Justice filed suit against the port in 1983; and (5) EPA and the port agreed to settle the dispute without further litigation in July 1986, with the port agreeing to modify its operations, install additional air pollution control equipment, and pay a penalty for alleged past violations.

132471

Hazardous Waste: Uncertainties of Existing Data. PEMD-87-11BR; B-223825. February 18, 1987.

Released March 23, 1987. 30 pp. plus 1 appendix (2 pp.). *Briefing Report* to Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by Eleanor Chelimsky, Director, Program Evaluation and Methodology Division.

Issue Area: Program Evaluation and Methodology: Intended and Unintended Effects of Operational Systems and Technologies (7201); Environment: Assessing EPA's Efforts To Protect Public Health and the Environment by Controlling Hazardous Waste From Generation To Disposal (6802).

Contact: Program Evaluation and Methodology Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *Rep.* Michael L. Synar.

Authority: Solid and Hazardous Waste Amendments of 1984. Resource Conservation and Recovery Act of 1976. Comprehensive Environmental Response, Compensation, and Liability Act of 1980. 45 Fed. Reg. 33084.

Abstract: In response to a congressional request, GAO addressed the issue of whether future treatment, storage, and disposal capacities will be quantitatively adequate to manage the volume of hazardous wastes being generated. Findings/Conclusions: GAO found that, after reviewing approximately 90 studies and documents, there were significant data gaps, methodological problems, and other issues that precluded it from: (1) relying upon available information to provide estimates of the total volume of hazardous waste; and (2) determining whether future treatment, storage, and disposal capacity will adequately meet the volume of hazardous waste generated. GAO concluded that a variety of uncertainties could severely constrain the planning and management of future hazardous waste production, including: (1) the amount of hazardous waste that Superfund sites will produce; (2) the effect of the proposed law on the land disposal of some wastes; and (3) legislative requirements for groundwater monitoring and financial responsibility. GAO believes that Congress should address certain methodological issues, including the definition of hazardous waste, the scope of waste estimates, and the design of studies, to ensure that it will have the information base it needs to plan for hazardous waste management.

132484

[Environmental, Safety, and Health Oversight of the Department of Energy's Operations]. T-RCED-87-12. March 25, 1987. 12 pp. plus 1 attachment (2 pp.). *Testimony* before the House Committee on Science and Technology: Natural Resources, Agriculture Research and Environment Subcommittee; by Keith O. Fultz, Associate Director, Resources, Community, and Economic Development Division. Refer to T-RCED-87-4, March 12, 1987, Accession Number 132384; T-RCED-88-30, March 31, 1988, Accession Number 135455; EMD-81-108, August 4, 1981, Accession Number 115979; RCED-84-50, November 30, 1983, Accession Number 123131; RCED-86-175, June 16, 1986, Accession Number 130260; RCED-86-192, September 8, 1986, Accession Number 131121; RCED-87-30, November 4, 1986, Accession Number 131661; and RCED-86-90, March 21, 1986, Accession Number 130087.

Contact: Resources, Community, and Economic Development Division.

Organization Concerned: Department of Energy.

Congressional Relevance: *House* Committee on Science and Technology: Natural Resources, Agriculture Research and Environment Subcommittee. .

Authority: Clean Water Act of 1977. Resource Conservation and Recovery Act of 1976. Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

Abstract: GAO discussed the Department of Energy's (DOE) oversight of environmental safety and health (ES&H) programs. In the past several years, GAO has addressed several issues concerning the need for internal ES&H oversight programs and outside independent assessments of safety analysis reports and waste disposal practices. GAO found that: (1) some DOE facilities were irreversibly contaminated and required long-term institutional care; (2) as a result of earlier recommendations, DOE established initiatives aimed at revising the conduct of ES&H activities and safety appraisals at DOE sites; (3) some DOE safety reviews provided little or no comparison

with design criteria or used different approaches to analyze serious accidents; and (4) DOE reluctance to allow for outside independent reviews facilitated a conflict between production goals and safety functions. GAO believes that the solution to existing environmental problems depends on the development of a groundwater and soil protection strategy and a comprehensive plan for bringing DOE facilities into full compliance with environmental laws.

132594

Nuclear Waste: Status of DOE's Nuclear Waste Site Characterization Activities. RCED-87-103FS; B-202377. March 20, 1987.

Released April 3, 1987. 40 pp. plus 1 appendix (1 p.). *Fact Sheet* to Rep. Philip R. Sharp, Chairman, House Committee on Energy and Commerce: Energy Conservation and Power Subcommittee; by Keith O. Fultz, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-87-14, February 9, 1987, Accession Number 132140; and RCED-88-56FS, November 19, 1987, Accession Number 134477.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).

Organization Concerned: Department of Energy: Office of Civilian Radioactive Waste Management.

Congressional Relevance: *House* Committee on Energy and Commerce: Energy Conservation and Power Subcommittee; *Rep.* Philip R. Sharp.

Authority: Nuclear Waste Policy Act of 1982 (P.L. 97-425). 10 C.F.R. 60. 40 C.F.R. 191. 10 C.F.R. 960. 10 C.F.R. 20.

Abstract: Pursuant to a congressional request, GAO reviewed the status of the Department of Energy's (DOE) planned site characterization activities under the Nuclear Waste Policy Act of 1982.

Findings/Conclusions: GAO found that: (1) in January 1987, DOE extended some site characterization milestones by 5 years; (2) each site had unique technical problems that DOE needed to resolve, including the potential for radioactive groundwater contamination, and unforeseen construction problems; (3) existing cost estimates were very tentative because site characterization costs were greatly affected by the amount of time needed to complete the phase; and (4) the Office of Civilian Radioactive Waste Management developed a comprehensive quality assurance program as a viable part of its construction license application.

132595

Superfund: Funding for the Agency for Toxic Substances and Disease Registry. RCED-87-112BR; B-226251. March 13, 1987.

Released April 3, 1987. 17 pp. plus 1 appendix (1 p.). *Briefing Report* to Sen. Robert T. Stafford, Ranking Minority Member, Senate Committee on Environment and Public Works; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to HRD-84-62, September 28, 1984, Accession Number 125391.

Issue Area: Environment: Assessing Effectiveness and Efficiency of the Use of Superfund Resources (6813).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency; Public Health Service: Centers for Disease Control: Agency for Toxic Substances and Disease Registry.

Congressional Relevance: *House* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *House* Committee on Energy and Commerce; *Senate* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *Senate* Committee on Environment and Public Works; *Sen.* Robert T. Stafford.

Authority: Superfund Amendments and Reauthorization Act of 1986 (P.L. 99-499). Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (P.L. 96-510). Executive Order 12580. 42 U.S.C. 9631.

Abstract: Pursuant to a congressional request, GAO reviewed the implementation of the Superfund Amendments and Reauthorization Act of 1986 (SARA), which authorized funds for the Agency for Toxic Substances and Disease Registry (ATSDR) for fiscal years 1987 through 1991.

Findings/Conclusions: GAO found that: (1) SARA allowed the Environmental Protection Agency (EPA) to transfer Superfund money to ATSDR, but prohibited it from controlling the use of the money; (2) EPA reviewed and reduced the 1988 ATSDR budget request and, after negotiations and appeals, submitted a request for $50 million, the minimum amount earmarked by SARA; (3) the interagency agreements EPA used to transfer funds to ATSDR, which restricted the use of those funds for specified activities, did not comply with SARA; and (4) EPA no longer has the authority to direct how ATSDR spends money authorized under SARA.

Recommendation To Agencies: The Administrator, EPA, should not place any restrictions, through interagency agreements or any other means, on the use of funds earmarked to ATSDR under section 111(h) of SARA.

132598

[EPA's Region VII PCB Enforcement Actions Concerning PCB Treatment, Inc. and Environmental Resources Management, Inc.] T-RCED-87-13. April 6, 1987. 7 pp. plus 2 appendices (5 pp.). *Testimony* before the House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to T-OSI-88-6, August 10, 1988, Accession Number 136508.

Contact: Resources, Community, and Economic Development Division.

Organization Concerned: Environmental Protection Agency: Region VII, Kansas City, MO; PCB Treatment, Inc.; Environmental Resource Management, Inc.

Congressional Relevance: *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee. .

Abstract: In response to a congressional request, GAO discussed the Environmental Protection Agency's (EPA) enforcement activities regarding polychlorinated biphenyls (PCB), focusing on two companies operating in one EPA region. EPA regulatory activities concerning PCB include: (1) approving PCB disposal and destruction processes developed by private companies; (2) inspecting the companies for compliance with PCB regulations; and (3) taking enforcement actions against violators. GAO reported that, with regard to the first company, EPA: (1) inspected its facilities on three occasions between February 1982 and July 1985 and found storage violations during two inspections; (2) denied its request in December 1983 for an extension to destroy PCB; and (3) performed six different inspections between August 1985 and March 1986

and found storage, disposal, and recordkeeping violations. GAO noted that this company stopped its disposal operations on March 31, 1987. With regard to the second company, GAO reported that EPA: (1) inspected its facilities in September 1984 and found two storage violations; (2) performed four inspections between September 1985 and March 1986 and found violations involving inadequate recordkeeping, improper operating procedures, and improperly marked materials; (3) inspected its facilities in August and September 1986 and found more than 31 violations; and (4) refused to renew its permit for the old site or issue a permit for a new site until it corrected all past violations. GAO also commented on the fines EPA imposed on both companies for their respective violations.

132628

Endangered Species: Limited Effect of Consultation Requirements on Western Water Projects. RCED-87-78; B-226076. March 26, 1987.

Released April 9, 1987. 37 pp. plus 4 appendices (19 pp.). *Report* to Sen. George J. Mitchell, Chairman, Senate Committee on Environment and Public Works: Environmental Protection Subcommittee; Sen. John H. Chafee, Ranking Minority Member, Senate Committee on Environment and Public Works: Environmental Protection Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division.

Issue Area: Natural Resources Management: Effectiveness of Natural Resources Protection Programs and Their Effect on the Balance Between Land Development and Conservation Interests (6905).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Conservation and Land Management (302.0).

Organization Concerned: Department of the Interior.

Congressional Relevance: *Senate* Committee on Environment and Public Works: Environmental Protection Subcommittee; *Sen.* John H. Chafee; *Sen.* George J. Mitchell.

Authority: Endangered Species Act of 1973 (P.L. 93-205). Clean Water Act of 1977 (33 U.S.C. 1344). Environmental Policy Act of 1969 (National). Nongame and Endangered or Threatened Wildlife Species Conservation Act (Nebraska).

Abstract: Pursuant to a congressional request, GAO reviewed the effect of the Endangered Species Act on the development of water rights in western states.

Findings/Conclusions: GAO found that: (1) some competitors for scarce water claimed that reserving water for endangered species has hampered their ability to develop water resources for irrigation, municipal water supplies, and industrial development; (2) the Department of the Interior required federal agencies to consult on water conservation projects before authorizing development actions, but the requirement had little or no effect on western water development; (3) other concurrent problems, such as lack of funding, often had more serious effects on western water development than consultation requirements; (4) Interior developed several approaches to allow continued development of water supplies in river basins while protecting endangered species; and (5) although some consultations exceeded the prescribed 90-day time limit, they did not lengthen the time needed to complete the projects, alter project scopes, or substantially increase project costs.

132701

Nuclear Waste: Status of DOE's Implementation of the Nuclear Waste Policy Act. RCED-87-17; B-202377. April 15, 1987. 87 pp. plus 12 appendices (32 pp.). *Report* to Congress; by Charles A. Bowsher, Comptroller General. Refer to RCED-85-27, January 10, 1985, Accession Number 125966; RCED-85-100, September 30, 1985, Accession Number 128021; RCED-86-86, January 31, 1986, Accession Number 129261; RCED-86-4, April 1, 1986, Accession Number 129698; RCED-86-200FS, July 30, 1986, Accession Number 130677; RCED-86-104FS, May 8, 1986, Accession Number 129887; RCED-86-198FS, August 15, 1986, Accession Number 130812; RCED-87-14, February 9, 1987, Accession Number 132140; RCED-87-121, August 31, 1987, Accession Number 133814; and RCED-88-131, September 28, 1988, Accession Number 136919.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404); Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Supply (271.0).

Organization Concerned: Department of Energy.

Congressional Relevance: Congress.

Authority: Nuclear Waste Policy Act of 1982 (P.L. 97-425; 42 U.S.C. 10101). Price-Anderson Act (Atomic Energy Damages). Executive Order 12291.

Abstract: GAO reviewed the Department of Energy's (DOE) progress in implementing Nuclear Waste Policy Act (NWPA) requirements from October 1984 through December 31, 1985, specifically DOE efforts to identify locations for a second repository site.

Findings/Conclusions: GAO noted that NWPA required DOE to conduct a study of the need for a monitored retrievable storage facility to stop and monitor the waste prior to its permanent disposal in a repository. GAO found that DOE did not issue environmental assessments in 1985 because it needed additional time to revise its site-selection methodology. GAO also found that: (1) in December 1985, DOE issued a draft monitored retrievable storage proposal, but a federal district court prohibited DOE from submitting the proposal because it did not properly cooperate with the potential host state for a storage facility; (2) DOE developed a cost allocation proposal that established a fee for defense waste disposal; (3) the lack of cooperation among states resulted in a more costly waste management program; and (4) as of September 1986, there were 20 court cases challenging the DOE site-selection process and the decision to postpone site-specific work on the second repository.

132715

Water Pollution: Application of National Cleanup Standards to the Pulp and Paper Industry. RCED-87-52; B-226207. March 18, 1987.

Released April 20, 1987. 35 pp. plus 1 appendix (1 p.). *Report* to Rep. James L. Oberstar, Chairman, House Committee on Public Works and Transportation: Investigations and Oversight Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division.

Issue Area: Environment: Assessing How Water Pollution Facilities Are Reducing Pollutants From the Nation's Waters (6804).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.
Congressional Relevance: *House* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *House* Committee on Public Works and Transportation; *House* Committee on Public Works and Transportation: Investigations and Oversight Subcommittee; *Senate* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *Senate* Committee on Environment and Public Works; *Rep.* James L. Oberstar.
Authority: Water Pollution Control Act Amendments of 1972 (Federal) (33 U.S.C. 1251 et seq.). Water Pollution Control Act. Clean Water Act of 1977. 40 C.F.R. 122.29.
Abstract: In response to a congressional request, GAO reviewed the Environmental Protection Agency's (EPA) national effluent standards limiting the types and amounts of pollutants that industries may discharge into the nation's water. GAO used the paper and pulp industry as an example to determine whether: (1) discharge permit limits were at least as stringent as the appropriate national standards required; and (2) the amount of pollutants in selected pulp and paper mills' effluent met the appropriate national standards.
Findings/Conclusions: GAO found that: (1) the vast majority of the 193 major effluent-discharging pulp and paper mills held permits whose limits were at least as stringent as national standards required; and (2) mills in five major pulp-and-paper-producing areas were generally discharging the two key nontoxic pollutants for the industry at levels in line with permit limits. However, GAO found problems with the way in which permitting authorities set limits because they could result in discharges of more pollutants than the national standards allowed, since: (1) mill production figures available in setting some permit limits did not include 5-year historical production figures; and (2) permit writers were not consistently applying more stringent new-source standards to some expansions of existing pulp and paper mills. GAO also found that the water pollution program changed in recent years because: (1) individual states became the driving force in setting cleanup levels for the pulp and paper industry by setting permit levels and dealing with site-specific water pollution problems; and (2) the second-stage standards EPA set for nationwide application were no more stringent than the first-stage standards because EPA determined that the cost of meeting the more stringent standards was not reasonable for the pulp and paper industry.
Recommendation To Agencies: The Administrator, EPA, should implement EPA instructions by requiring permitting authorities to obtain and use 5-year historical-average production data when setting future pulp and paper mills' permit limits. Exceptions to this procedure should be documented and occur only when historic trends, market forces, or company plans indicate that a different level of production will prevail during the life of a permit. To promote the consistent application of new-source national standards to mill expansions, the Administrator, EPA, should develop instructions that set out specifically how permitting authorities are to determine if new-source standards should be applied to expansions of existing pulp and paper mills, such as linking new-source determinations to a specific percentage of production increases. Because water pollution control technology, costs, and benefits can change over time, the Administrator, EPA, should establish specific time frames for periodic reevaluations of the costs and benefits of implementing more advanced control technologies for existing pulp and paper mills. If EPA determines that the cost of more advanced control technologies is reasonable, such controls should be implemented.

132820

[Federal Regulation of Pesticide Residues in Food]. T-RCED-87-21. April 30, 1987. 21 pp. plus 6 attachments (9 pp.). *Testimony* before the House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-86-219, September 26, 1986, Accession Number 131729; RCED-87-7, October 7, 1986, Accession Number 131730; RCED-76-42, December 4, 1975, Accession Number 096904; and RCED-86-125, April 18, 1986, Accession Number 129999.

Contact: Resources, Community, and Economic Development Division.
Organization Concerned: Food and Drug Administration; Environmental Protection Agency.
Congressional Relevance: *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee.
Authority: Insecticide, Fungicide, and Rodenticide Act. Food, Drug, and Cosmetic Act.
Abstract: GAO discussed the Environmental Protection Agency's (EPA) and the Food and Drug Administration's (FDA) regulation of pesticide residues in food. FDA is responsible for testing domestic and imported foods for pesticide residues to ensure compliance with EPA residue tolerances. The United States consumes an estimated 290 billion pounds of food each year, of which it imports about 43 billion pounds. GAO found that FDA: (1) cannot detect many pesticides; (2) lacks adequate information on pesticides used on foreign-grown crops imported into the United States; (3) does not test all imported foods on a regular basis; (4) generally does not test for pesticides that it cannot detect by the multiresidue method; (5) is unable to prevent the marketing of most adulterated foods because they move very quickly through the marketplace due to their perishability; and (6) is not authorized to issue civil penalties against growers and producers of adulterated foods. GAO also found that EPA: (1) lacks the data for determining safe residue limits and the health hazards of inert pesticides in groundwater; (2) plans to reassess tolerances for 390 older pesticides, but cannot ensure that established residue limits adequately protect health; and (3) has not set tolerance levels on inert pesticide ingredients. GAO believes that the uncertain health risks associated with chemical residues in food underlie the importance of effective food monitoring programs.

132871

Air Pollution: States Assigned a Major Role in EPA's Air Toxics Strategy. RCED-87-76; B-226223. March 31, 1987.

Released May 7, 1987. 35 pp. plus 5 appendices (5 pp.). *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-83-199, August 26, 1983, Accession Number 122439.

Issue Area: Environment: Adequacy of Federal and State Efforts To Regulate Toxic Air Pollutants (6805).
Contact: Resources, Community, and Economic Development Division.
Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce: Health and the Environment Subcommittee; *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Senate* Committee on Environment and Public Works: Environmental Protection Subcommittee; Congress; *Rep.* John D. Dingell.

Authority: Clean Air Act Amendments of 1970.

Abstract: In response to a congressional request, GAO examined the Environmental Protection Agency's (EPA) strategy to rely more on states to regulate toxic air pollutants, specifically: (1) the status of the strategy; (2) certain legal issues related to state regulation of pollutants; and (3) variances among state air toxics programs.

Findings/Conclusions: GAO noted that the EPA strategy of delegating its authority to set standards and regulations for toxic air pollutants and pollution sources raised concerns about legal issues, public health, and industry location implications. GAO found that: (1) the question of whether EPA has the discretion to delegate regulatory responsibility to states instead of issuing national standards is under litigation; (2) although EPA discontinued referring the regulation of toxic air pollutants to states, it continued to identify potential pollution sources in states and furnish them with studies for use in evaluation and regulation; (3) as of May 1968, 17 states had pollution control programs in place and 29 were developing programs; (4) since the state programs vary in terms of the pollutants and sources they regulate, their regulation strategies, and the methods they use to establish acceptable emission levels, then the levels of public exposure to toxic pollutants also vary; and (5) environmental regulation is generally not a significant factor in industry location decisions.

Recommendation To Congress: During the reauthorization of the Clean Air Act, Congress may wish to consider the consistency issue and the options available to address it. One option is to retain the status quo, that is, to continue to allow the states discretion in standard setting, compliance monitoring, and enforcement, but continue to provide financial and technical assistance to state air toxics programs. A second option would be for EPA to exercise more control over state air toxics programs.

132947

Nuclear Waste: Quarterly Report on DOE's Nuclear Waste Program as of March 31, 1987. RCED-87-139FS; B-202377. May 13, 1987. 23 pp. plus 1 appendix (1 p.). *Fact Sheet* to Sen. J. Bennett Johnston, Chairman, Senate Committee on Energy and Natural Resources; Sen. James A. McClure, Ranking Minority Member, Senate Committee on Energy and Natural Resources; by Keith O. Fultz, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-87-14, February 9, 1987, Accession Number 132140; and RCED-87-186FS, August 11, 1987, Accession Number 133673.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).

Organization Concerned: Department of Energy.

Congressional Relevance: *Senate* Committee on Energy and Natural Resources; *Sen.* James A. McClure; *Sen.* J. Bennett Johnston.

Authority: Nuclear Waste Policy Act of 1982 (P.L. 97-425). Safe Drinking Water Act.

Abstract: Pursuant to a congressional request, GAO reviewed the status of the Department of Energy's (DOE) nuclear waste program activities for the quarter ending March 31, 1987.

Findings/Conclusions: GAO found that DOE: (1) released a draft amendment to its mission plan which extended the target date for first repository operations, and postponed site-specific activities for the second repository; (2) submitted its monitored retrievable storage proposal to Congress; (3) surveyed state regulators' comments concerning its need to ensure that waste disposal fees are equivalent to fees paid under civilian spent-fuel contracts; and (4) the Nuclear Waste Fund collected over $135.4 million in revenue during the quarter and totalled about $1.5 billion at the end of the quarter.

133051

Acid Rain: Delays and Management Changes in the Federal Research Program. RCED-87-89; B-226428. April 29, 1987.

Released May 27, 1987. 67 pp. plus 5 appendices (8 pp.). *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-86-7, December 17, 1985, Accession Number 129175; RCED-85-13, December 11, 1984, Accession Number 125835; and T-RCED-88-2, October 2, 1987, Accession Number 134082.

Issue Area: Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency; National Acid Precipitation Assessment Program Joint Chairs Council.

Congressional Relevance: *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Rep.* John D. Dingell.

Authority: Acid Precipitation Act of 1980 (P.L. 96-294).

Abstract: Pursuant to a congressional request, GAO reviewed recent management changes and program delays in the National Acid Precipitation Assessment Program (NAPAP).

Findings/Conclusions: Through fiscal year 1985, NAPAP spent $6.7 million developing its research results for the general public; however, it delayed its first assessment report because management underestimated the time and staff needed to review and approve the document. GAO found that centralized management made the research program stronger; however, management changes contributed to communication problems between NAPAP task groups and hampered program effectiveness. GAO also found that: (1) NAPAP reduced its efforts to evaluate the economic effects of acid rain since 1985 and included only minimal economic effects information in its first assessment; (2) disagreements among participating agencies on major issues and the large number of agency reviews contributed to delays in issuing key assessments; and (3) NAPAP annual reports were issued late and did not include policy recommendations.

Recommendation To Agencies: To ensure that Congress is provided with the best information available concerning the economic effects of acidic deposition, the Chairman of the NAPAP Joint Chairs Council (JCC) should identify economic information needed to assess the acidic

deposition issue and ensure that the associated analyses be undertaken. This effort should include: (1) the review and coordination of the economic effects assessment work currently conducted by federal agencies and organizations outside of NAPAP; and (2) the identification of gaps that remain to be addressed to meet NAPAP goals in such work. To ensure that key NAPAP documents are issued on a timely basis in the future, the Joint Chairs Council should: (1) direct the Director of Research and NAPAP task group officials to give high priority to the development of assessment documents, annual reports, and operating research plans; and (2) examine the staffing situation in the Office of the Director of Research and determine where delays occur and take steps to eliminate the bottlenecks. The Joint Chairs Council should determine whether the establishment of an external scientific committee would benefit NAPAP and, if such a committee would be beneficial, direct the Director of Research to establish it.

133072

Worker Protection: Notifying Workers at Risk of Occupational Disease. HRD-87-90BR; B-227196. May 11, 1987.

Released May 29, 1987. 23 pp. *Briefing Report* to Rep. Paul B. Henry, Ranking Minority Member, House Committee on Education and Labor: Health and Safety Subcommittee; by William J. Gainer, Associate Director, Human Resources Division.

Issue Area: Employment and Education (5300).

Contact: Human Resources Division.

Budget Function: Health: Education and Training of Health Care Work Force (553.0).

Organization Concerned: Occupational Safety and Health Administration; Public Health Service: Centers for Disease Control: National Institute for Occupational Safety and Health.

Congressional Relevance: *House* Committee on Education and Labor: Health and Safety Subcommittee; *Rep.* James M. Jeffords; *Rep.* Thomas E. Petri; *Rep.* Cass Ballenger; *Rep.* Rod Chandler; *Rep.* Paul B. Henry.

Authority: Privacy Act of 1974. Occupational Safety and Health Act of 1970. H.R. 1309 (99th Cong.). H.R. 162 (100th Cong.). S. 2050 (99th Cong.). S. 79 (100th Cong.).

Abstract: In response to a congressional request, GAO provided information on legislative proposals to establish a federal health risk notification program for workers exposed to hazardous substances, focusing on: (1) the federal government's difficulties in carrying out risk notification; (2) the potential benefits and disadvantages to workers of risk notification; and (3) the possibility of expanding the Department of Labor's hazard communication standard.

Findings/Conclusions: GAO found that: (1) several National Institute for Occupational Safety and Health (NIOSH) pilot programs showed that identifying and notifying individual workers that they might be at risk of occupational disease was feasible; (2) the proposed legislation would establish a risk assessment board to determine which employee populations were at risk of work-related diseases; (3) there are no comprehensive cost estimates for implementing the legislation's notification program; (4) NIOSH estimates that the federal government could spend $25 million annually to notify 300,000 workers, implement the legislation's other provisions, and improve methods for identifying and treating workers at risk; and (5) the legislation's indirect costs could be substantial if notified workers initiate a large number of lawsuits and workers' compensation claims. GAO also found that: (1) the principal benefit to workers of notification is the possibility of quicker and improved medical treatment; (2) industry representatives contend that federal, state, and private programs provide workers with adequate information on workplace hazards; (3) supporters of the notification concept believe that current regulations cover only workers in certain industries who are exposed to a hazard; and (4) expansion of the hazard communication standard as an alternative to the legislation may advance the legislation's goal of disease prevention, but the expansion proposal does not include many of the legislation's key features and would not achieve many of its other goals.

133153

[Federal Reregistration of Pesticides and Reassessment of Tolerances Will Extend Into the 21st Century]. T-RCED-87-27 . June 8, 1987. 17 pp. plus 4 attachments (5 pp.). *Testimony* before the House Committee on Energy and Commerce: Health and the Environment Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-86-125, April 18, 1986, Accession Number 129999.

Contact: Resources, Community, and Economic Development Division.

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce: Health and the Environment Subcommittee.

Authority: Insecticide, Fungicide and Rodenticide Act. Food, Drug and Cosmetic Act.

Abstract: GAO discussed the Environmental Protection Agency's (EPA) regulation of pesticides. GAO noted that: (1) EPA has not carried out its congressional mandate to completely reassess the risks of all registered pesticides; (2) until EPA completes its reassessment, it cannot ensure that the public and the environment are protected from dangerous pesticides; (3) EPA registers pesticides and sets tolerances for food pesticide content; (4) after initial delays in the reassessment, Congress authorized EPA to determine the safety of pesticide chemicals rather than individual pesticide products; (5) EPA reassessment efforts have included a telephone program to gather missing information on pesticide effects, an initiative to develop a regulatory position on each pesticide chemical, and an informal review process to review existing pesticide registrations in the face of new evidence regarding product safety; (6) EPA has only issued two final pesticide registrations; (7) EPA only recently began to assess the effects of pesticide inert ingredients; and (8) EPA resource limitations and the large volume of chemicals to be assessed could delay the reassessment effort's completion by more than 30 years.

133180

Nuclear Regulation: Public Knowledge of Radiological Emergency Procedures. RCED-87-122; B-213114. June 2, 1987.

Released June 2, 1987. 9 pp. plus 2 appendices (3 pp.). *Report* to Rep. Edward J. Markey; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to EMD-78-110, March 30, 1979, Accession Number 108990; and RCED-84-43, August 1, 1984, Accession Number 124844.

Issue Area: Energy: Other Issue Area Work (6491).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).

Organization Concerned: Federal Emergency Management Agency; Nuclear Regulatory Commission.

Congressional Relevance: *House* Committee on Government Operations; *Senate* Committee on Governmental Affairs; *Rep.* Edward J. Markey.

Authority: Atomic Energy Act of 1954. Paperwork Reduction Act of 1980. 44 C.F.R. 350. 10 C.F.R. 50.

Abstract: In response to a congressional request, GAO provided information on the actions the Federal Emergency Management Agency (FEMA) and utilities take to familiarize people living within the 10-mile-radius emergency planning zones (EPZ) around commercial nuclear power plants with the procedures they should follow if a nuclear accident should occur.

Findings/Conclusions: GAO found that: (1) although FEMA is responsible for ensuring the adequacy of off-site emergency plans at nuclear power plants and has periodically conducted surveys to determine whether EPZ residents have basic emergency planning information, it has not assessed whether the public knows what to do in the event of an emergency; (2) as part of the Nuclear Regulatory Commission's plant licensing process, FEMA assesses the adequacy of state and local off-site emergency preparedness; (3) the regulations governing development of radiological emergency plans do not specify how utilities should educate the public on emergency procedures; (4) in 1980, FEMA developed a lengthy questionnaire to assess EPZ residents' knowledge of emergency procedures, but the Office of Management and Budget denied it permission to use the questionnaire because that might have resulted in an excessively burdensome survey; and (5) although FEMA believes that assessing public knowledge is within its responsibilities, it has not revised and resubmitted its survey proposal. FEMA believes that, although it does not formally assess the level of public education on emergency procedures, its work with the utilities to improve their public education programs has been effective because utilities have: (1) changed their information brochures' format and style; (2) changed the reading level of the brochures to coincide with the particular geographic area; and (3) used different materials.

Recommendation To Agencies: The Director, FEMA, should develop a survey to assess EPZ residents' knowledge of radiological emergency procedures. In doing this, FEMA should first explore the possibility of expanding its current EPZ survey to include questions on this issue.

133202

Nuclear Waste: DOE Should Provide More Information on Monitored Retrievable Storage.

RCED-87-92; B-202377. June 1, 1987.

Released June 12, 1987. 59 pp. plus 3 appendices (11 pp.). *Report* to Rep. Morris K. Udall, Chairman, House Committee on Interior and Insular Affairs; Rep. Philip R. Sharp, Chairman, House Committee on Energy and Commerce: Energy and Power Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-86-104FS, May 8, 1986, Accession Number 129887; RCED-86-198FS, August 15, 1986, Accession Number 130812; T-RCED-87-35, June 1, 1987, Accession Number 133286; RCED-87-121, August 31, 1987, Accession Number 133814; T-RCED-87-30, June 11, 1987, Accession Number 133217; T-RCED-88-55, July 26, 1988, Accession Number 136406; and RCED-88-131, September 28, 1988, Accession Number 136919.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).

Organization Concerned: Department of Energy: Office of Civilian Radioactive Waste Management; Tennessee; Department of Energy.

Congressional Relevance: *House* Committee on Appropriations: Energy and Water Development Subcommittee; *House* Committee on Energy and Commerce: Energy and Power Subcommittee; *House* Committee on Interior and Insular Affairs; *Senate* Committee on Appropriations: Energy and Water Development Subcommittee; *Senate* Committee on Energy and Natural Resources; Congress; *Rep.* Philip R. Sharp; *Rep.* Morris K. Udall.

Authority: Nuclear Waste Policy Act of 1982 (P.L. 97-425).

Abstract: Pursuant to a congressional request, GAO evaluated the Department of Energy's (DOE) plans for monitored retrievable storage (MRS) of spent nuclear fuel, focusing on whether the DOE MRS proposal provided Congress with enough information to determine whether to authorize an MRS facility.

Findings/Conclusions: GAO found that: (1) DOE proposed an MRS system whose principal role would be waste preparation rather than long-term waste storage, as the Nuclear Waste Policy Act envisioned; (2) the DOE proposal did not show how a system that included MRS would differ from a system that did not; (3) DOE did not analyze potential alternatives to determine whether it could improve the nuclear waste management process without MRS; (4) DOE did not compare the costs of MRS and non-MRS alternatives; (5) DOE believes that, while MRS would increase total system costs by $1.5 billion to $1.6 billion, it would offset the costs by savings of up to $1 billion in spent fuel storage costs at reactors; and (6) DOE did not estimate the cost of state and local taxes for MRS or the cost of mitigating the local impact of an MRS facility.

Recommendation To Congress: DOE has submitted its proposal to Congress seeking authorization to construct and operate an MRS facility primarily for waste preparation and packaging rather than for long-term waste storage. In evaluating the proposal, Congress needs to recognize that the MRS concepts embodied in the Nuclear Waste Policy Act and the DOE proposal are different.

Recommendation To Agencies: In order to assist Congress in its determination of whether MRS should be integrated into the nuclear waste management system, the Secretary of Energy should obtain reactor-specific information from utilities on: (1) their need for MRS and how it would affect their operations; (2) whether they are willing and able to implement alternatives for improving the authorized waste management identified by DOE, such as rod consolidation, dry storage, and upgrading for rail transport, at reactor sites; and (3) whether utilities have identified other potentially viable alternatives for the management of nuclear wastes that may be more beneficial than either MRS or the alternatives identified by DOE. In order to assist Congress in its determination of whether MRS should be included into the nuclear waste management system, the Secretary of Energy should identify the best configuration of the authorized waste management system that combines the most feasible alternatives for maximizing the effectiveness, efficiency, and safety of the system in lieu of MRS and present Congress with the benefits and costs of both systems. This analysis should include the final results of the DOE Program Research and Development Announcement and

ongoing systems integration studies. In order to assist Congress in its determination of whether MRS should be included in the nuclear waste management system, the Secretary of Energy should determine the estimated costs of each program element which has been identified, but not yet quantified.

133217

[DOE Should Provide More Information on Monitored Retrievable Storage]. T-RCED-87-30. June 11, 1987. 9 pp. *Testimony* before the House Committee on Energy and Commerce: Energy Conservation and Power Subcommittee; by Keith O. Fultz, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-87-92, June 1, 1987, Accession Number 133202.

Contact: Resources, Community, and Economic Development Division.
Organization Concerned: Department of Energy.
Congressional Relevance: *House* Committee on Energy and Commerce: Energy Conservation and Power Subcommittee.
Authority: Nuclear Waste Policy Act of 1982.
Abstract: GAO discussed its evaluation of the Department of Energy's (DOE) proposal for a monitored retrievable storage (MRS) facility to package and store spent nuclear fuel for transshipment to a permanent repository. GAO noted that: (1) the Nuclear Waste Policy Act authorizes MRS for a permanent repository, while DOE envisions MRS for a temporary storage facility; (2) DOE did not analyze, or provide Congress with enough information on, MRS alternatives; and (3) DOE did not fully develop its MRS cost estimates and failed to consider the cost of state and local taxes, site acquisition, or mitigating the local impacts of an MRS facility, among other elements. GAO believes that DOE should provide Congress with more comprehensive information on MRS before Congress decides whether to authorize it.

133229

[Price-Anderson Act Nuclear Accident Liability Protection]. T-RCED-87-33. June 17, 1987. 11 pp. plus 1 appendix (13 pp.) . *Testimony* before the House Committee on Science, Space, and Technology: Energy Research and Development Subcommittee; by Keith O. Fultz, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-87-124, June 2, 1987, Accession Number 133093; EMD-80-80, August 18, 1980, Accession Number 113089; and EMD-81-111, September 14, 1981, Accession Number 116393.

Contact: Resources, Community, and Economic Development Division.
Organization Concerned: Nuclear Regulatory Commission; Department of Energy.
Congressional Relevance: *House* Committee on Science, Space, and Technology: Energy Research and Development Subcommittee. .
Authority: Price-Anderson Act (Atomic Energy Damages). H.R. 1414 (100th Cong.).
Abstract: GAO discussed its work on the Price-Anderson Act's expiring indemnification provisions. GAO noted that: (1) the act's financial protection would not apply to contracts the Department of Energy (DOE) awarded after expiration; and (2) the existing act does not provide the public with the same level of protection for accidents at DOE nuclear facilities as at commercial facilities. GAO believes that Congress should extend the indemnification provisions because: (1) the potential for a serious accident still exists; (2) private insurance to fully cover the expected consequences of a catastrophic accident is unavailable; (3) the nuclear industry is unwilling to operate without adequate financial protection; and (4) the public might not be able to expect injury and damage compensation if an accident bankrupted the responsible organization. GAO also believes that: (1) Congress should make liability coverage identical for DOE and commercial facilities; (2) Congress may wish to explicitly extend the act's coverage to the costs of precautionary evacuations; (3) legislation to amend the act should include a statutory limitation on claims; and (4) Congress should consider who should be responsible for penalties imposed by the act.

133254

Hazardous Waste: Information on EPA's Proposal To Delete Chemicals From Groundwater Monitoring. RCED-87-132FS; B-226799. May 19, 1987.

Released June 22, 1987. 19 pp. plus 1 appendix (1 p.). *Fact Sheet* to Rep. James J. Florio; Rep. Thomas A. Luken, Chairman, House Committee on Energy and Commerce: Transportation, Tourism, and Hazardous Materials Subcommittee; Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-88-29, February 18, 1988, Accession Number 135343.

Issue Area: Environment: Assessing EPA's Efforts To Protect Public Health and the Environment by Controlling Hazardous Waste From Generation To Disposal (6802).
Contact: Resources, Community, and Economic Development Division.
Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).
Organization Concerned: Environmental Protection Agency.
Congressional Relevance: *House* Committee on Energy and Commerce: Transportation, Tourism, and Hazardous Materials Subcommittee; *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Rep.* James J. Florio; *Rep.* Thomas A. Luken; *Rep.* John D. Dingell.
Authority: Resource Conservation and Recovery Act of 1976. 40 C.F.R. 261.
Abstract: Pursuant to a congressional request, GAO reviewed the Environmental Protection Agency's (EPA) proposal to eliminate 150 chemicals from groundwater monitoring at its land disposal facilities.
Findings/Conclusions: GAO surveyed 175 testing laboratories on the feasibility of testing the chemicals, and found that: (1) the majority of the laboratories could not test for the chemicals in groundwater because of suspected testing problems; (2) 10 of the laboratories surveyed indicated that the test method was valid and reliable; (3) information on the quantities of disposed wastes that contained the chemicals was unavailable; (4) there was limited information on the amounts of the chemicals produced annually in pure form; (5) two-thirds of the chemicals were highly toxic; (6) chemical production was not a reliable indicator of disposable wastes; and (7) short-term exposure to the chemicals could lead to death or permanent injury.

133286

[DOE Should Provide More Information On Monitored Retrievable Storage]. T-RCED-87-35. June 18, 1987. 9 pp. *Testimony* before the Senate Committee on

Environment and Public Works: Nuclear Regulation Subcommittee; by Keith O. Fultz, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-87-92, June 1, 1987, Accession Number 133202.

Contact: Resources, Community, and Economic Development Division.
Organization Concerned: Department of Energy.
Congressional Relevance: *Senate* Committee on Environment and Public Works: Nuclear Regulation Subcommittee.
Authority: Nuclear Waste Policy Act of 1982.
Abstract: GAO discussed the Department of Energy's (DOE) proposal to construct and operate a monitored retrievable storage (MRS) facility for spent nuclear fuel, focusing on whether the proposal provided adequate information for a congressional decision on whether to authorize the facility. GAO noted that the Nuclear Waste Policy Act: (1) authorized DOE to dispose of commercial spent fuel and other highly radioactive wastes in a geologic repository; and (2) required DOE to study long-term waste storage in one or more MRS facilities as an option for safe and reliable spent fuel management, and to submit to Congress a proposal for adding such facilities to the authorized waste system. GAO found that the DOE proposal: (1) recommended MRS for handling and temporary storage, rather than for long-term storage as described in the act; (2) did not fully explore non-MRS alternatives for improving the current waste management system; and (3) did not estimate the full costs of building and operating an MRS facility. GAO believes that the MRS proposal does not provide enough information for Congress to determine: (1) if other improvements to the current waste system can provide many of the perceived benefits of the MRS facility at less cost; or (2) whether the added benefits DOE expects outweigh the additional costs.

133387

Hazardous Waste: DOD Installations in Guam Having Difficulty Complying With Regulations. NSIAD-87-87; B-213706. April 22, 1987.

Released July 9, 1987. 27 pp. *Report* to Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by Frank C. Conahan, Assistant Comptroller General, National Security and International Affairs Division. Refer to NSIAD-86-60, May 19, 1986, Accession Number 129907.

Issue Area: Environment: Other Issue Area Work (6891); Air Force: Other Issue Area Work (5491).
Contact: National Security and International Affairs Division.
Budget Function: National Defense: Defense-Related Activities (054.0).
Organization Concerned: Department of Defense; Guam; Defense Logistics Agency: Defense Reutilization and Marketing Service: Defense Reutilization and Marketing Office, Guam; Department of the Navy; Department of the Air Force.
Congressional Relevance: *House* Committee on Appropriations: Defense Subcommittee; *House* Committee on Appropriations: Military Construction Subcommittee; *House* Committee on Armed Services: Military Installations and Facilities Subcommittee; *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *Senate* Committee on Appropriations: Defense Subcommittee; *Senate* Committee on Appropriations: Military Construction Subcommittee; *Senate* Committee on Armed Services; *Rep.* Michael L. Synar.
Authority: Resource Conservation and Recovery Act of 1976.
Abstract: In response to a congressional request, GAO evaluated the Department of Defense's (DOD) efforts to manage, store, and dispose of the hazardous waste generated at installations in Guam.
Findings/Conclusions: GAO found that: (1) DOD installations in Guam were not in compliance with the Resource Conservation and Recovery Act's requirements; (2) most of the violations were serious, and many were repetitive; (3) the most common violation involved inadequate pretransport packaging and labeling measures and improper container use and management; (4) there were many instances where maintenance activities had improperly dumped or spilled hazardous waste which ran off into storm drains and dry wells; (5) there were significant discrepancies in the shipping and receiving numbers on manifests; (6) the lack of adherence to procedures caused problems in accounting for all hazardous wastes; and (7) DOD had not reconciled any of the discrepancies found in its disposal documents.
Recommendation To Agencies: The Secretary of Defense should direct Air Force and Navy officials in Guam to take actions to ensure that all personnel handling hazardous waste know the proper procedures for disposing of the waste so as to eliminate the dumping of wastes in ways that could contaminate the environment. The Secretary of Defense should direct the Defense Reutilization and Marketing Office in Guam to place more emphasis on its procedures for reconciling discrepancies between what is listed on each disposal document for hazardous waste, including delivery orders, pickup orders, manifests, and the Integrated Disposal Management System.

133388

Hazardous Waste: Abandoned Disposal Sites May Be Affecting Guam's Water Supply. NSIAD-87-88BR; B-213706. May 21, 1987.

Released July 9, 1987. 3 pp. plus 4 appendices (15 pp.). *Briefing Report* to Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by Harry R. Finley, Senior Associate Director, National Security and International Affairs Division. Refer to T-RCED-88-24, March 10, 1988, Accession Number 135246.

Issue Area: Environment: Other Issue Area Work (6891); Air Force: Other Issue Area Work (5491).
Contact: National Security and International Affairs Division.
Budget Function: National Defense: Defense-Related Activities (054.0).
Organization Concerned: Department of the Air Force: Andersen AFB, Guam; Department of the Navy: Pacific Fleet: U.S. Naval Ship Repair Facility, Guam; Environmental Protection Agency; Guam; Department of Defense.
Congressional Relevance: *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *Rep.* Michael L. Synar.
Authority: Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601).
Abstract: In response to a congressional request, GAO reviewed Department of Defense (DOD) efforts to identify and clean up abandoned hazardous waste disposal sites on a Navy and an Air Force installation in Guam.
Findings/Conclusions: GAO found that DOD: (1) initiated its Installation Restoration Program (IRP) to identify suspected problems with closed disposal sites and to control the migration of hazardous contamination from those sites; (2) completed the program's first

phase, the identification of bases with potentially hazardous sites, at both facilities; (3) completed preliminary work on the second-phase confirmation study for the Air Force base; and (4) awarded a contract for a confirmation study for the naval base in April 1986. The Environmental Protection Agency (EPA) and Guam: (1) believe that both installations need to include more site assessment work; (2) questioned the scope of the first-phase assessments; (3) noted 45 sites requiring reexamination, despite earlier DOD determinations that they required no further study; and (4) identified more sites that DOD should have assessed during the first phase of IRP. GAO found that: (1) the Navy agreed to perform additional testing of 7 of its sites, but it did not agree to monitor an additional 27 sites, as Guam and EPA requested; (2) the Air Force and Guam were working together during the IRP second phase to ensure reassessment of sites the Air Force did not consider during the first phase; (3) testing of the air base's drinking water has been sporadic and incomplete, but monthly testing of samples at various locations in the system is now in place; and (4) discussions are continuing between EPA, Guam, and the Navy concerning site monitoring.

133461

Hazardous Waste: Tinker Air Force Base Is Making Progress in Cleaning Up Abandoned Sites. NSIAD-87-164BR; B-213706. July 10, 1987.

Released July 17, 1987. 3 pp. plus 4 appendices (18 pp.). *Briefing Report* to Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by Harry R. Finley, Senior Associate Director, National Security and International Affairs Division. Refer to NSIAD-85-91, July 19, 1985, Accession Number 127583; and NSIAD-88-4, October 29, 1987, Accession Number 134530.

Issue Area: Environment: Other Issue Area Work (6891); Air Force: Other Issue Area Work (5491).

Contact: National Security and International Affairs Division.

Budget Function: National Defense: Defense-Related Activities (054.0).

Organization Concerned: Department of Defense; Department of the Air Force: Tinker AFB, OK; Department of the Army: Corps of Engineers.

Congressional Relevance: *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *Rep.* Michael L. Synar.

Authority: Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601). Resource Conservation and Recovery Act of 1976.

Abstract: Pursuant to a congressional request, GAO reviewed the Department of Defense's (DOD) efforts to dispose of hazardous waste at Tinker Air Force Base (AFB).

Findings/Conclusions: GAO found that, in 1985, Tinker AFB: (1) created the Installation Program Technical Review Committee to resolve problems in a more timely and effective manner; (2) established an environmental action group to increase its responsiveness to hazardous waste issues and to act as a clearinghouse for all environmental actions; (3) established a new Environmental Management Directorate to raise the visibility of environmental problems and enhance the working relationship with regulatory agencies; and (4) contracted with the Army Corps of Engineers to complete the Installation Restoration Program, which eliminated the need for private contractors and reduced the time needed to begin site cleanup work.

133525

[Superfund Work Force Issues]. T-RCED-87-41. July 23, 1987. 8 pp. plus 7 attachments (7 pp.). *Testimony* before the Senate Committee on Environment and Public Works: Superfund and Environmental Oversight Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division.

Contact: Resources, Community, and Economic Development Division.

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *Senate* Committee on Environment and Public Works: Superfund and Environmental Oversight Subcommittee.

Abstract: GAO discussed the Environmental Protection Agency's (EPA) Superfund program's shortage of skilled personnel, employee turnover, pay differentials with the private sector, and employee training needs. GAO found that: (1) Superfund employees believed that there were staffing and skill shortages in the program in early 1987; (2) full EPA use of additional fiscal year (FY) 1987 positions should have alleviated perceived shortages; (3) EPA needs to use more objective techniques and productivity measures to better support and analyze future staffing and skill requirements; (4) the turnover rate for Superfund employees more than doubled between FY 1985 and FY 1986, surpassing the overall federal rate by 2 percent; (5) former Superfund employees most frequently cited lack of advancement opportunity as the reason they left EPA; and (6) Superfund employees receive less pay than their private-sector counterparts. GAO also found that EPA: (1) took action to enhance employee promotion opportunities; (2) is considering ways to increase Superfund employee compensation through bonuses and added fringe benefits; and (3) developed a plan to improve its Superfund training program.

133533

Water Pollution: EPA Controls Over Ballast Water at Trans-Alaska Pipeline Marine Terminal. RCED-87-118; B-221467. June 18, 1987.

Released July 24, 1987. 6 pp. plus 5 appendices (33 pp.). *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to T-HRD-87-8, April 7, 1987, Accession Number 132608; and HRD-87-42, March 19, 1987, Accession Number 132801.

Issue Area: Environment: Assessing How Water Pollution Facilities Are Reducing Pollutants From the Nation's Waters (6804).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency; Alyeska Pipeline Service Co.

Congressional Relevance: *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Rep.* John D. Dingell.

Authority: Water Pollution Control Act Amendments of 1972 (Federal) (33 U.S.C. 1251 et seq.). Toxic Substances Control Act.

Abstract: In response to a congressional request, GAO obtained information on the Environmental Protection Agency's (EPA) controls over pollutants that a pipeline company discharged into Valdez Bay, Alaska, at its ballast water treatment plant to determine: (1) why

EPA has not issued the plant a new water discharge permit; and (2) whether EPA has effectively monitored and enforced the conditions of the existing permit.

Findings/Conclusions: GAO found that: (1) EPA did not issue a new permit in 1983 because of higher-priority work, staff limitations, and absence of funds to hire an expert permit writer; (2) EPA expects to issue a draft permit in 1987; (3) the company has operated under an extension of the less stringent old permit; (4) EPA monitored the company's permit and identified instances of noncompliance, but has not taken formal enforcement actions; and (5) since 1984, EPA has taken steps to enforce compliance with permit requirements, but has not finalized its investigation of allegations of other environmental problems. GAO believes that EPA needs to resolve environmental concerns surrounding the facility as soon as possible.

133549

Water Quality: Pollution of San Francisco Bay and the Sacramento-San Joaquin Delta. RCED-87-156FS; B-227332. June 18, 1987.

Released July 28, 1987. 32 pp. plus 1 appendix (1 p.). *Fact Sheet* to Rep. Vic Fazio; by Thomas P. McCormick, Regional Manager, Field Operations Division: Regional Office (San Francisco).

Issue Area: Environment: Assessing How Water Pollution Facilities Are Reducing Pollutants From the Nation's Waters (6804).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency; National Oceanic and Atmospheric Administration.

Congressional Relevance: *Rep.* Vic Fazio.

Authority: Resource Conservation and Recovery Act of 1976. Water Pollution Control Act Amendments of 1972 (Federal). Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

Abstract: In response to a congressional request, GAO discussed the sources and amounts of pollutants in the San Francisco Bay and Sacramento-San Joaquin delta.

Findings/Conclusions: GAO found that: (1) wastewater discharged from federal facilities contributes less than 1 percent of the total wastewater and has less effect on water quality than other sources of bay and delta pollution; (2) the full extent of pollution and its impact on the health of the bay is not known; (3) treatment plants typically discharge less than the permitted pollution amounts; (4) commercial facilities are generally more responsive to regulatory guidance and directives than federal facilities; and (5) studies are underway to identify and quantify pollution sources, but are not intended to distinguish the federal contribution.

133577

Toxic Substances: Abandonment of PCBs Demonstrates Need for Program Improvements. RCED-87-127; B-203051. May 20, 1987.

Released July 30, 1987. 30 pp. plus 2 appendices (2 pp.). *Report* to Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to CED-82-21, December 30, 1981, Accession Number 117205; T-RCED-88-10, December 9, 1987, Accession Number 134601; RCED-88-127, April 15, 1988, Accession Number 135709; RCED-88-72, February 26, 1988, Accession Number 135703.

Issue Area: Environment: Assessing Whether EPA's Toxic Substances Control Program Is Protecting the Public (6815).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: SED, Inc.; Environmental Protection Agency.

Congressional Relevance: *House* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *House* Committee on Energy and Commerce; *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *Senate* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *Senate* Committee on Environment and Public Works; *Rep.* Michael L. Synar.

Authority: Toxic Substances Control Act. Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

Abstract: In response to a congressional request, GAO examined the circumstances that led a polychlorinated biphenyls (PCB) handling firm to abandon PCB at two sites, focusing particularly on the Environmental Protection Agency's (EPA) regulatory practices and enforcement efforts related to the abandonment.

Findings/Conclusions: GAO found that EPA: (1) has inadequate controls over PCB, particularly regarding headquarters oversight and guidance to regions; (2) lacks nationwide criteria for PCB disposal permits, since regional administrators are responsible for setting permit requirements without policy guidance from headquarters; (3) lacks adequate controls over PCB intermediate operators, which are potentially large handlers of PCB; and (4) lacks knowledge about the existence and operation of intermediate operators, which limits its ability to monitor them as part of its PCB enforcement and compliance program. GAO also found that, after an EPA inspector raised concerns about the large amounts of PCB that the firm was holding in excess of the 1-year storage limit, EPA fined the firm but failed to pursue practical corrective actions. GAO believes that such actions could have prevented the firm's abandonment of PCB.

Recommendation To Agencies: To improve EPA identification and control over the safe handling and disposal of PCB, and to reduce the likelihood of other cases of PCB abandonment, the Administrator, EPA, should take appropriate actions to strengthen controls over PCB, including: (1) establishing specific nationwide criteria for PCB permits; (2) requiring intermediate operators to obtain an EPA license or PCB permit, and PCB generators/owners to allow only permitted firms to pick up PCB or PCB materials; and (3) emphasizing periodic inspections of all PCB handlers, especially focusing on the correction of PCB regulatory deficiencies as soon after inspection as possible.

133661

Hazardous Waste: Siting of Storage Facility at Kelly Air Force Base, Texas. NSIAD-87-200BR; B-213706. July 31, 1987.

Released August 11, 1987. 8 pp. plus 1 appendix (2 pp.). *Briefing Report* to Rep. Albert G. Bustamante, House of Representatives; Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by Harry R. Finley, Senior Associate Director, National Security and International Affairs Division.

Issue Area: Environment: Other Issue Area Work (6891); Air Force: Other Issue Area Work (5491).

Contact: National Security and International Affairs Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Department of the Air Force: Kelly AFB, TX; Defense Logistics Agency: Defense Reutilization and Marketing Service; Department of the Air Force: Air Force Logistics Command; Texas: Water Commission.

Congressional Relevance: *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *Rep.* Michael L. Synar; *Rep.* Albert G. Bustamante.

Authority: Environmental Policy Act of 1969 (National). Resource Conservation and Recovery Act of 1976. P.L. 99-499.

Abstract: In response to a congressional request, GAO reported on Department of Defense (DOD) actions to ensure proper disposal of hazardous materials at Kelly Air Force Base (AFB), including site selection and storage.

Findings/Conclusions: GAO found that: (1) DOD took appropriate steps in selecting Kelly AFB for the storage of its toxic waste materials; (2) the Texas Water Commission will issue a final decision on the DOD request for a permit for the storage building in 4 to 5 months; (3) when local residents became aware, through publication of the permit application, that hazardous waste was stored at Kelly AFB, they reacted adversely; and (4) DOD did not prepare environmental assessments of the sites under consideration. GAO also found that: (1) the Air Force Logistics Command established environmental management offices throughout its air logistics centers for the purpose of ensuring compliance with environmental issues; and (2) although all of the air logistics centers' review committees include federal and state representatives, some do not include local representatives.

133673

Nuclear Waste: Quarterly Report on DOE's Nuclear Waste Program as of June 30, 1987. RCED-87-186FS; B-202377. August 11, 1987. 24 pp. plus 2 appendices (3 pp.). *Fact Sheet* to Sen. J. Bennett Johnston, Chairman, Senate Committee on Energy and Natural Resources; Sen. James A. McClure, Ranking Minority Member, Senate Committee on Energy and Natural Resources; by Keith O. Fultz, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-87-139FS, May 13, 1987, Accession Number 132947. Also refers to numerous other GAO reports on nuclear waste.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).

Organization Concerned: Department of Energy: Office of Civilian Radioactive Waste Management; Nuclear Regulatory Commission; National Academy of Sciences.

Congressional Relevance: *Senate* Committee on Energy and Natural Resources; *Sen.* James A. McClure; *Sen.* J. Bennett Johnston.

Authority: Nuclear Waste Policy Act of 1982 (P.L. 97-425). H.R. 2700 (100th Cong.). H.R. 2888 (100th Cong.). S. 1141 (100th Cong.). S. 1266 (100th Cong.). S. 1481 (100th Cong.).

Abstract: In response to a congressional request, GAO reviewed the status of the Department of Energy's (DOE) nuclear waste program activities for the quarter ended June 30, 1987.

Findings/Conclusions: GAO found that DOE submitted the first amendment to its mission plan, extending the operational date for the first repository from 1998 to 2003 and requesting congressional approval for: (1) its proposal to construct and operate a monitored retrievable storage facility; (2) delay of site-specific work for a second repository; and (3) a national survey of potential second-repository sites. GAO also found that: (1) DOE was heavily involved in preparing site characterization plans for each candidate site; (2) the Nuclear Regulatory Commission intends to propose that DOE perform significant surface-based testing at each candidate site before drilling exploratory shafts; (3) the National Academy of Sciences submitted a proposal to DOE requesting approximately $1.5 million for the first three years of a technical review of site characterization; and (4) several new legislative proposals would redirect or significantly change the nuclear waste management program. In addition, GAO found that the Nuclear Waste Fund: (1) collected over $170 million in fees and investment income; (2) obligated about $31 million for program activities; and (3) balance as of June 30, 1987, was about $1.5 billion.

133696

Nuclear Waste: Shipping Damaged Fuel From Three Mile Island to Idaho. RCED-87-123; B-227551. August 10, 1987.

Released August 13, 1987. 45 pp. plus 7 appendices (16 pp.). *Report* to Rep. William L. Clay; Rep. Richard A. Gephardt; Rep. Alan Wheat; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).

Organization Concerned: Department of Energy; Nuclear Regulatory Commission; General Public Utilities Corp.; Federal Railroad Administration; Department of Energy: Idaho National Engineering Laboratory.

Congressional Relevance: *Rep.* Alan Wheat; *Rep.* Richard A. Gephardt; *Rep.* William L. Clay.

Authority: Atomic Energy Act of 1954. Nuclear Waste Policy Act of 1982.

Abstract: In response to a congressional request, GAO examined the Department of Energy's (DOE) program to ship damaged nuclear fuel from the Three Mile Island (TMI) nuclear power plant to the DOE Idaho National Engineering Laboratory, specifically the: (1) DOE decision to ship the waste; (2) safety standards DOE used for the shipments; (3) criteria DOE used to select the shipping route; and (4) planning for emergencies that could occur along the route.

Findings/Conclusions: GAO found that: (1) DOE selected the Idaho facility because of its unique equipment and personnel expertise in the decontamination, processing and disposition of large-scale radioactive wastes; (2) the Nuclear Regulatory Commission (NRC) reviewed the transportation equipment to ensure that radioactivity would not escape in the event of an accident; (3) DOE, NRC, the TMI owner, the Federal Railroad Administration, and the affected states worked together to ensure the program's safety; (4) the criteria for route selection were a high-quality track, avoidance of large population centers, and the most direct route; (5) DOE developed a contingency plan to mobilize special emergency teams to recover and clean up the waste in the event of an accident;

and (6) the railroad and local and state governments would have primary responsibility for initiating and monitoring recovery operations if an accident occurred.

133701

Wildlife Management: National Refuge Contamination Is Difficult To Confirm and Clean Up. RCED-87-128; B-148898. July 17, 1987.

Released August 14, 1987. 65 pp. plus 3 appendices (19 pp.). *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-85-69, March 29, 1985, Accession Number 126612.

Issue Area: Natural Resources Management: Effectiveness and Efficiency of Development, Operation, and Maintenance of Federal Water Resources Projects (6917); Environment: Assessing EPA's Cleanup of the Worst Abandoned Hazardous Waste Sites (6803).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Water Resources (301.0).

Organization Concerned: Department of the Interior; Bureau of Reclamation; United States Fish and Wildlife Service; United States Fish and Wildlife Service: Kesterson National Wildlife Refuge, CA; Environmental Protection Agency; California: State Water Resources Control Board.

Congressional Relevance: *House* Committee on Appropriations: Energy and Water Development Subcommittee; *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Senate* Committee on Appropriations: Energy and Water Development Subcommittee; *Senate* Committee on Environment and Public Works; *Rep.* John D. Dingell.

Authority: Clean Water Act of 1977. Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Fish and Wildlife Coordination Act. Migratory Bird Treaty Act. Water Pollution Control Act Amendments of 1972 (Federal). Water Quality Act of 1987.

Abstract: In response to a congressional request, GAO reviewed the status of cleanup activities at the Kesterson National Wildlife Refuge to determine whether the federal government: (1) assessed the extent of contamination at refuges nationwide; (2) developed water quality criteria to protect wildlife and refuge habitats from contamination; and (3) dealt with actual or potential contamination from agricultural drainage water or other sources.

Findings/Conclusions: GAO found that the: (1) Bureau of Reclamation stopped the flow of contaminated water to the Kesterson refuge and prepared a phased cleanup plan to initially treat contamination in place, rather than dispose of it; (2) board responsible for protecting California's water resources rejected the phased plan and approved the concept of on-site disposal; and (3) cleanup will cost an estimated $27 billion. GAO also found that the Department of the Interior: (1) intensified efforts to identify contaminated refuges, since an Interior survey indicated that 85 of 430 refuges were or could be contaminated by agricultural drainwater or by municipal, industrial, or military activities; and (2) did not use survey techniques that would identify all contaminated refuges. GAO concluded that obstacles to identifying and cleaning up sites include the: (1) lack of water quality criteria to determine when contamination threatens wildlife and refuge habitats; (2) lack of federal regulatory authority over agricultural drainage water; and (3) lengthy process of identifying the party responsible for cleanup, deciding on a cleanup plan, and obtaining cleanup funds.

Recommendation To Agencies: The Administrator, Environmental Protection Agency (EPA), in close coordination with the Secretary of the Interior, should develop water quality criteria for protecting wildlife and refuge habitats. If current resources and funding levels are insufficient for this program, the Secretary and the Administrator should submit estimates of the additional needs to Congress for consideration. The Secretary of the Interior should evaluate the results of the ongoing studies to determine if agricultural drainage traceable to a single source is occurring elsewhere. If agricultural drainage traceable to a single source is occurring elsewhere, the Secretary of the Interior should work with the Administrator, EPA, in preparing a legislative proposal to amend the Clean Water Act to require that agricultural drainage traceable to a single source be subject to discharge permit requirements.

133794

Superfund: Civilian Federal Agencies Slow To Clean Up Hazardous Waste. RCED-87-153; B-215824. July 24, 1987.

Released August 28, 1987. 33 pp. plus 2 appendices (3 pp.). *Report* to Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to NSIAD-85-41, April 12, 1985, Accession Number 126764; RCED-87-30, November 4, 1986, Accession Number 131661; RCED-86-90, March 21, 1986, Accession Number 130087; RCED-86-192, September 8, 1986, Accession Number 131121; RCED-88-44, December 17, 1987, Accession Number 134840; and T-RCED-88-24, March 10, 1988, Accession Number 135246.

Issue Area: Environment: Assessing EPA's Efforts To Protect Public Health and the Environment by Controlling Hazardous Waste From Generation To Disposal (6802).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency; Department of Energy; Bureau of Land Management; United States Fish and Wildlife Service; Federal Aviation Administration; Forest Service; National Aeronautics and Space Administration; Department of Agriculture: Agricultural Research Service; National Park Service; Bureau of Indian Affairs; Bureau of Reclamation; United States Coast Guard.

Congressional Relevance: *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *Rep.* Michael L. Synar.

Authority: Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Resource Conservation and Recovery Act of 1976. Department of Defense Appropriation Act, 1984.

Abstract: In response to a congressional request, GAO evaluated the status of 11 civilian federal agencies' efforts to identify, assess, evaluate, and clean up hazardous waste sites.

Findings/Conclusions: GAO found that: (1) about 70 percent of the 1,882 potential hazardous waste sites identified as of September 1986 were at the Department of Energy's nuclear materials and weapons facilities and research laboratories; (2) the Department of the Interior identified the second largest number, consisting of

landfills, dumps, and old mining sites; (3) the other agencies' sites included maintenance and repair facilities and research laboratories; (4) only four of the agencies completed site identification efforts; and (5) although none of the agencies had completed their assessments, all but two believed that they would meet the 1988 congressional deadline. GAO also found that: (1) the number of sites requiring cleanup will increase; (2) agencies cleaned up 78 of the 511 identified hazardous waste sites; and (3) agencies could not predict when they would complete their cleanup efforts or how much those efforts would cost.

133814

Nuclear Waste: A Look at Current Use of Funds and Cost Estimates for the Future. RCED-87-121; B-202377. August 31, 1987. 68 pp. plus 5 appendices (10 pp.). *Report* to Sen. J. Bennett Johnston, Chairman, Senate Committee on Energy and Natural Resources; Sen. James A. McClure, Ranking Minority Member, Senate Committee on Energy and Natural Resources; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-87-92, June 1, 1987, Accession Number 133202; RCED-85-100, September 30, 1985, Accession Number 128021; RCED-87-17, April, 15, 1987, Accession Number 132701; RCED-87-200FS, September 10, 1987, Accession Number 133936; RCED-88-129, June 22, 1988, Accession Number 136393; and RCED-88-131, September 28, 1988, Accession Number 136919.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).

Organization Concerned: Department of Energy; Nuclear Regulatory Commission.

Congressional Relevance: *House* Committee on Appropriations: Energy and Water Development Subcommittee; *House* Committee on Interior and Insular Affairs; *House* Committee on Energy and Commerce; *Senate* Committee on Appropriations: Energy and Water Development Subcommittee; *Senate* Committee on Energy and Natural Resources; *Sen.* James A. McClure; *Sen.* J. Bennett Johnston.

Authority: Nuclear Waste Policy Act of 1982 (P.L. 97-425).

Abstract: In response to a congressional request, GAO reviewed the Department of Energy's (DOE) nuclear waste management program to: (1) compare the use of fiscal year (FY) 1985 program funds with the approved budget; (2) assess the effects of schedule delays on program costs; and (3) assess the life-cycle cost estimates.

Findings/Conclusions: GAO found that: (1) although Congress appropriated $327.7 million from the Nuclear Waste Fund for FY 1985, DOE moved $12 million to other waste management subprograms and used $219.3 million for the first repository subprogram; (2) because of delays in completing environmental assessments and site selections, the first repository project offices could not accomplish many activities planned during FY 1985; (3) the additional funds required to complete the assessments and activities substantially increased the cost of the first repository subprogram; (4) schedule delays compressed milestones and caused concerns over DOE ability to meet the original milestones without sacrificing quality; (5) DOE cost estimates have changed significantly due to uncertainty over the final design, construction, and operation of the waste system; and (6) since DOE based its spent-fuel projections and revenue estimates on long-range forecasts of economic activity and energy demand, overestimating future industry growth may result in DOE building an unnecessarily large waste disposal system and setting fees too low to produce revenues at the rate needed to cover total program costs.

Recommendation To Agencies: For waste system planning, including life-cycle cost analyses and fee adequacy determination, the Secretary of Energy should base long-range projections of spent-fuel inventories for commercial nuclear power plants on the nuclear generating capacity of operating commercial nuclear plants and plants that are actively progressing through Nuclear Regulatory Commission licensing and construction.

133851

Surface Mining: State and Federal Use of Alternative Enforcement Techniques. RCED-87-160; B-224852. August 20, 1987.

Released September 9, 1987. 12 pp. plus 3 appendices (6 pp.). *Report* to Rep. Morris K. Udall, Chairman, House Committee on Interior and Insular Affairs; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division.

Issue Area: Natural Resources Management: OSM and State Effectiveness in Meeting Regulatory Responsibilities Under SMCRA (6910).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Conservation and Land Management (302.0).

Organization Concerned: Department of the Interior: Office of Surface Mining Reclamation and Enforcement; Department of the Interior.

Congressional Relevance: *House* Committee on Appropriations: Interior Subcommittee; *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *House* Committee on Interior and Insular Affairs; *Senate* Committee on Appropriations: Interior and Related Agencies Subcommittee; *Senate* Committee on Energy and Natural Resources; *Rep.* Morris K. Udall.

Authority: Surface Mining Control and Reclamation Act of 1977.

Abstract: Pursuant to a congressional request, GAO reviewed state and federal use of alternative enforcement techniques under the Surface Mining Control and Reclamation Act, focusing on: (1) whether states with primacy for mining regulation have statutory authority to use, and are using, the alternative techniques; (2) whether the Office of Surface Mining Reclamation and Enforcement (OSMRE) uses such techniques in states where it has primacy; and (3) the extent to which OSMRE monitors state use of alternative techniques.

Findings/Conclusions: GAO found that: (1) all of the primacy states it reviewed had statutory authority to use alternative techniques, including injunctions, civil penalties, criminal charges, or mining permit actions, but none of the states developed systems to ensure that they were appropriately using all of the alternative techniques; (2) of the available techniques, states most often chose to revoke or suspend mining permits; (3) 13 states established specific deadlines for initiating alternative enforcement action in the absence of abatement; (4) OSMRE most often attempts to obtain injunctive relief against uncooperative mine operators; and (5) initial OSMRE reviews generally focused on states' authority to use alternative techniques but, in 1987, OSMRE directed its field offices to assess

how states were implementing alternative techniques.

Recommendation To Agencies: In order to improve the act's enforcement, the Secretary of the Interior should require the Director, OSMRE, to require states to develop systems necessary to ensure that alternative enforcement techniques are appropriately used. Such systems should allow for the use of regulatory judgment, but should include written policies and procedures to guide regulators' actions on such matters as when, and under what conditions, alternative techniques would be used.

133903

Air Pollution: EPA's Efforts To Control Vehicle Refueling and Evaporative Emissions. RCED-87-151; B-227442. August 7, 1987.

Released September 15, 1987. 56 pp. plus 3 appendices (3 pp.). *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-86-6, December 18, 1985, Accession Number 129022; RCED-84-62, April 6, 1984, Accession Number 123970; T-RCED-88-2, October 2, 1987, Accession Number 134082; and RCED-88-40, January 26, 1988, Accession Number 134947.

Issue Area: Environment: Adequacy of Federal and State Efforts To Regulate Toxic Air Pollutants (6805).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency; Environmental Protection Agency: Office of Air and Radiation.

Congressional Relevance: *House* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Rep.* John D. Dingell.

Authority: Clean Air Act. 40 C.F.R. 86.

Abstract: In response to a congressional request, GAO examined the Environmental Protection Agency's (EPA) proposals to adequately control motor vehicle refuelling and evaporative emissions, including the costs and benefits of alternative methods.

Findings/Conclusions: GAO found that: (1) EPA considered two alternatives for controlling refuelling emissions and determined that the onboard control method was superior; (2) the onboard control method requires motor vehicle manufacturers to equip vehicles with emission control systems; and (3) while onboard controls would cost an estimated $180 million per year and add about $19 to the average vehicle price, they would provide long-term emissions reductions and free consumers from the operation of any control equipment. GAO also found that: (1) by 1989, EPA plans to reduce hydrocarbon emissions by 6 percent by reducing the volatility of commercial gasoline during the summer months; (2) this plan would cost oil refineries an estimated $490 million annually and consumers about $20 per vehicle; and (3) while the motor vehicle industry favors lowering the volatility of commercial gasoline, the oil industry favors raising the volatility certification and modification of the evaporative emission control systems to handle higher gasoline volatility.

Recommendation To Agencies: The Administrator, EPA, should direct the Office of Air and Radiation to include in its refuelling and evaporative control analyses better documentation of the cost-effectiveness of alternative ozone control strategies, including support for its $2,000 benchmark standard. The Administrator, EPA, should direct the Office of Air and Radiation to include in its refuelling and evaporative control analyses a more explicit comparison of all the costs and benefits associated with the various refuelling and evaporative emission control strategies, including a more thorough analysis of the effects of key uncertainties.

133936

Nuclear Waste: Information on Cost Growth in Site Characterization Cost Estimates. RCED-87-200FS; B-202377. September 10, 1987.

Released September 18, 1987. 21 pp. plus 1 appendix (1 p.). *Fact Sheet* to Sen. James A. McClure, Ranking Minority Member, Senate Committee on Energy and Natural Resources; Sen. J. Bennett Johnston, Chairman, Senate Committee on Energy and Natural Resources; by Keith O. Fultz, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-87-121, August 31, 1987, Accession Number 133814; RCED-88-56FS, November 19, 1987, Accession Number 134477; and RCED-88-131, September 28, 1988, Accession Number 136919.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).

Organization Concerned: Department of Energy.

Congressional Relevance: *Senate* Committee on Energy and Natural Resources; *Sen.* James A. McClure; *Sen.* J. Bennett Johnston.

Authority: Nuclear Waste Policy Act of 1982 (P.L. 97-425). H.R. 1909 (97th Cong.).

Abstract: In response to a congressional request, GAO discussed the Department of Energy's (DOE) testing and site characterization for the three sites it is considering for the first repository for the permanent disposal of high-level nuclear waste.

Findings/Conclusions: GAO found that: (1) in 1981, cost estimates of site characterizations ranged from $60 million to $80 million per site; (2) recent changes in program milestones have lengthened site characterization by 3 years and increased total life-cycle costs to $4.1 billion; (3) most of the increases were due to the addition of several unanticipated activities, such as sinking exploratory shafts, expanding the technical testing program, and funding for states and affected Indian tribes; and (4) since recent delays in the revised schedule could further escalate costs, DOE must adhere to the current schedule to stablize future cost estimates.

134077

Health Risk Analysis: Technical Adequacy in Three Selected Cases. PEMD-87-14; B-227612. September 30, 1987. 89 pp. plus 8 appendices (69 pp.). *Report* to Rep. Robert A. Roe, Chairman, House Committee on Science, Space, and Technology; by Eleanor Chelimsky, Director, Program Evaluation and Methodology Division. Refer to RCED-84-62, April 6, 1984, Accession Number 123970; RCED-88-27, June 13, 1988, Accession Number 136284; and RCED-88-101, August 16, 1988, Accession Number 136581.

Issue Area: Program Evaluation and Methodology: Methodological Quality of Front-End Evaluation Information Supporting Regulatory Decision-Making (7202).

Contact: Program Evaluation and Methodology Division.

Budget Function: General Science, Space, and Technology: General Science and Basic Research (251.0); Health:

Consumer and Occupational Health and Safety (554.0); Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Food and Drug Administration; Occupational Safety and Health Administration; Environmental Protection Agency.

Congressional Relevance: *House* Committee on Science, Space, and Technology; *Rep.* Robert A. Roe.

Authority: Food, Drug and Cosmetic Act (21 U.S.C. 301 et seq.). Occupational Safety and Health Act of 1970 (P.L. 91-596). Clean Air Act (42 U.S.C. 7411(a)(1)(C)). Monsanto v. Kennedy, 613 F.2d 947 (D.C. Cir. 1979). Industrial Union Department, American Federation of Labor and Congress of Industrial Organizations v. American Petroleum Institute, 448 U.S. 607 (1980). American Textile Manufacturers Institute v. Donovan, 452 U.S. 490 (1981).

Abstract: GAO evaluated the risk analysis processes used by the Food and Drug Administration (FDA), the Occupational Safety and Health Administration (OSHA), and the Environmental Protection Agency (EPA) to identify possible weaknesses and strengths in the processes.

Findings/Conclusions: GAO found that: (1) risk assessment work generally met acceptable technical and scientific criteria; (2) FDA and OSHA did a credible job of reviewing and evaluating available evidence on a hazard; and (3) problems in risk assessment were primarily related to data availability. GAO also found that: (1) there were significant problems in risk management work; (2) FDA and EPA poorly documented the development and evaluation of risk management options and decisionmaking processes; (3) the extent and quality of risk management guidelines varied greatly between and within the agencies; and (4) none of the agencies conducted follow-up evaluations of the regulations to determine if they were achieving the intended risk reduction effects.

134082

[Management of the National Acid Precipitation Assessment Program and EPA's Proposals To Control Vehicle Refueling and Evaporative Emissions]. T-RCED-88-2. October 2, 1987. 15 pp. *Testimony* before the House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-87-89, April 29, 1987, Accession Number 133051; and RCED-87-151, August 7, 1987, Accession Number 133903.

Contact: Resources, Community, and Economic Development Division.

Organization Concerned: Environmental Protection Agency; National Acid Precipitation Assessment Program Joint Chairs Council.

Congressional Relevance: *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee. .

Abstract: GAO discussed the National Acid Precipitation Assessment Program's (NAPAP) research into acid rain and the Environmental Protection Agency's (EPA) proposed action to reduce gasoline vapors from motor vehicles. GAO found that: (1) although the first NAPAP assessment's purpose was to summarize current knowledge about acid rain, it generated considerable controversy; and (2) management changes and staffing shortages contributed to delays in the assessment and the annual report and could delay a final assessment scheduled for 1990. GAO believes that the NAPAP Joint Chairs Council should take a stronger and more visible management role to ensure timely resolution of differences between agency representatives. GAO also found that EPA proposed to require: (1) motor vehicle manufacturers to equip their vehicles with onboard systems to control refuelling emissions; and (2) oil refineries to lower the volatility of the commercial gasoline consumers use in their vehicles. GAO believes that EPA should: (1) document the cost-effectiveness of alternative ozone control strategies; and (2) provide a more thorough analysis of the costs and benefits of its various refuelling and evaporative emission control strategies.

134121

Hazardous Waste: Controls Over Injection Well Disposal Operations Protect Drinking Water. RCED-87-170; B-227690. August 28, 1987.

Released October 13, 1987. 48 pp. plus 1 appendix (1 p.). *Report* to Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-88-44, December 17, 1987, Accession Number 134840; and RCED-88-101, August 16, 1988, Accession Number 136581.

Issue Area: Environment: Assessing Federal and State Efforts To Prevent Groundwater Contamination (6816).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *Senate* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *Rep.* Michael L. Synar.

Authority: Safe Drinking Water Act. Resource Conservation and Recovery Act of 1976.

Abstract: In response to a congressional request, GAO reviewed the Environmental Protection Agency's (EPA) Underground Injection Control (UIC) Program, to assess: (1) the extent to which hazardous waste has contaminated underground sources of drinking water; and (2) EPA and state oversight of underground injection of hazardous waste.

Findings/Conclusions: GAO found that: (1) although there are few confirmed cases of drinking-water contamination, because the contamination is hard to detect, there could be more; (2) monitoring wells have a limited usefulness for large underground areas; (3) neither EPA nor the states require sampling or testing of groundwater immediately above injected waste; (4) EPA did not perform periodic well inspections to ensure compliance with regulations in two states for which it had direct responsibility; (5) 1984 legislation mandated the banning of injection well disposal of hazardous wastes as of August 1988, unless operators could demonstrate that the hazardous waste would not migrate; and (6) EPA believes that most wells currently in operation should pass a demonstration of no migration, meet the more stringent controls, and continue to operate.

Recommendation To Agencies: To ensure that the regulatory oversight functions built into the UIC program for hazardous waste injection wells are in fact being performed in states for which EPA bears direct responsibility, the Administrator, EPA, should strengthen the program's oversight functions by requiring that EPA headquarters annually evaluate each regional office operating a UIC program, to ensure, at a

minimum, that the program's regulatory oversight functions are being performed. To ensure that the regulatory oversight functions built into the UIC program for hazardous waste injection wells are in fact being performed in states for which EPA bears direct responsibility, the Administrator, EPA, should strengthen the program's oversight functions by reemphasizing to EPA regions with direct UIC program responsibility that they are to perform and document periodic inspections and report noncompliance incidents to EPA headquarters, as required by UIC regulations.

134133

Imported Meat and Livestock: Chemical Residue Detection and the Issue of Labeling. RCED-87-142; B-224753. September 30, 1987. 97 pp. plus 3 appendices (9 pp.). *Report* to Rep. E (Kika) De La Garza, Chairman, House Committee on Agriculture; Sen. Patrick J. Leahy, Chairman, Senate Committee on Agriculture, Nutrition, and Forestry; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-86-125, April 18, 1986, Accession Number 129999; and T-RCED-88-67, September 27, 1988, Accession Number 136905.

Issue Area: Food and Agriculture: Relevance of Policies and Programs Developed Decades Ago To Improve the Marketing of Food (6523).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Agriculture: Import-Export Issues (352.1); Agriculture: Agricultural Research and Services (352.0).

Organization Concerned: Department of Agriculture: Food Safety and Inspection Service; Department of Agriculture.

Congressional Relevance: *House* Committee on Government Operations; *House* Committee on Appropriations: Agriculture, Rural Development, and Related Agencies Subcommittee; *House* Committee on Agriculture; *Senate* Committee on Governmental Affairs; *Senate* Committee on Appropriations: Agriculture, Rural Development, and Related Agencies Subcommittee; *Senate* Committee on Agriculture, Nutrition, and Forestry; *Rep.* E (Kika) De La Garza; *Sen.* Patrick J. Leahy.

Authority: Meat Inspection Act (21 U.S.C. 601 et seq.). Poultry Products Inspection Act (21 U.S.C. 451 et seq.). Food Security Act (P.L. 99-198). Agriculture and Food Act of 1981 (P.L. 97-98). Insecticide, Fungicide, and Rodenticide Act. Tariff Act of 1930. 19 C.F.R. 12.24. General Agreement on Tariffs and Trade, Oct. 30, 1947, Multilateral, 61 Stat. 5(6), T.I.A.S. No. 1700. 19 U.S.C. 1304.

Abstract: GAO reviewed the Department of Agriculture's (USDA) effectiveness in detecting prohibited chemical residues and foreign matter in imported meat items and live animals.

Findings/Conclusions: GAO found that: (1) although the Food Safety and Inspection Service (FSIS) developed an annual plan in 1986, which included 406 chemicals for consideration and 100 for testing, it lacked detailed, current information on the chemicals used abroad; (2) FSIS plans to require foreign countries that want to export meat to the United States to submit an annual residue testing plan to USDA; (3) because FSIS met its 1986 testing quotas by May 1, 1986, it did not test meat imported after that date for the full range of residues; (4) FSIS did not always remove from the U.S. food market the remainder of lots that showed chemical violations; (5) in 1986, about 60 percent of imported live animals came from Mexico, which has been ineligible to export meat to the United States since 1984 because of chemical residues; (6) FSIS does not have current information to adequately test for chemicals used in Mexico; and (7) mandating quality control reports and country-of-origin labelling of meat could result in increased food costs and may constitute a nontariff trade barrier.

Recommendation To Agencies: To develop an import residue testing plan that is sensitive to conditions regarding chemical use in foreign countries, the Secretary of Agriculture should direct the Administrator, FSIS, to implement a continuous, systematic effort to identify and evaluate chemicals in use abroad that are not used in the United States. The Secretary of Agriculture should direct the Administrator, FSIS, to systematically assess the status of methods for detecting harmful chemicals in processed meat and muscle tissue to provide a basis for deciding on the additional research needed to develop more effective methods. The Secretary of Agriculture should direct the Administrator, FSIS, to determine whether live animals entering the United States present unacceptable risk to consumers. Such a risk assessment should consider: (1) the source of live animals (country of origin and location within country); (2) livestock production and marketing practices in pertinent foreign countries, including controls over and use of animal drugs and other chemicals; (3) residue testing results from domestic plants where the imported animals are likely to have been slaughtered and whether those results are different from those at plants that do not slaughter imported animals; and (4) if appropriate, special test programs to determine whether imported animals have unacceptable chemical residues. If such a risk assessment indicates an unacceptable risk for any country, FSIS should take steps to ban live animal imports from that country until the foreign government can provide assurance that animals for export to the United States are free of prohibited residues. If chemical use in foreign countries is identified, FSIS should: (1) evaluate the chemicals to determine which ones pose a potential hazard; (2) develop methods for their detection if methods are lacking; and (3) include them in the import plan for testing. The Secretary of Agriculture should direct the Administrator, FSIS, to update risk profiles of countries eligible to export meat products to the United States to better ensure the safety of imported meat.

134159

[The Army's Risk Assessment of Chemical Munitions Transportation]. T-NSIAD-88-2. October 19, 1987. 14 pp. *Testimony* before the House Committee on Government Operations: Government Activities and Transportation Subcommittee; by Thomas J. Brew, Associate Director, National Security and International Affairs Division. Refer to T-NSIAD-87-6, March 3, 1987, Accession Number 132295; and T-NSIAD-87-7, March 4, 1987, Accession Number 132296.

Contact: National Security and International Affairs Division.

Organization Concerned: Department of the Army.

Congressional Relevance: *House* Committee on Government Operations: Government Activities and Transportation Subcommittee. .

Authority: Environmental Policy Act of 1969 (National). P.L. 99-145.

Abstract: GAO discussed the Army's chemical munitions disposal program to determine whether the Army's draft impact statement fully addressed all of the aspects of risk involved in disposing of or transporting chemical munitions. GAO found that the analysis was incomplete because the Army did not: (1) cover alternative accident and

transportation probabilities; (2) provide adequate emergency response capabilities; and (3) adequately disclose its limited air monitoring technology. GAO also found that the: (1) statement contained uncertainties that affected the accuracy of the accident and environmental impact estimates; (2) limited available data affected the assessment results; and (3) Army did not include any assessment of the risk of sabotage or terrorism. GAO believes that the Army should explicitly indicate data and methodological weaknesses and their impacts in its statement.

134208

Hazardous Waste: Issues Surrounding Insurance Availability. RCED-88-2; B-224651. October 16, 1987. 84 pp. plus 4 appendices (11 pp.). *Report* to Congress; by Charles A. Bowsher, Comptroller General. Refer to RCED-85-69, March 29, 1985, Accession Number 126612; RCED-86-150BR, May 19, 1986, Accession Number 130000; GGD-87-67, July 13, 1987, Accession Number 133519; GGD-86-56FS, April 9, 1986, Accession Number 129554; RCED-86-178BR, July 7, 1986, Accession Number 130673; HRD-86-50, February 24, 1986, Accession Number 129186; HRD-87-55, April 22, 1987, Accession Number 132815; RCED-88-39, January 15, 1988, Accession Number 134843; and HRD-88-64, July 29, 1988, Accession Number 136658.

Issue Area: Environment: Assessing EPA's Cleanup of the Worst Abandoned Hazardous Waste Sites (6803); Federal Civilian Work Force: Other Issue Area Work (4891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce; *Senate* Committee on Environment and Public Works; Congress.

Authority: Product Liability Risk Retention Act of 1981. Superfund Amendments and Reauthorization Act of 1986. Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (P.L. 96-510). Resource Conservation and Recovery Act of 1976. United States v. Chem-Dyne Corp., 572 F. Supp. 802 (S.D. Ohio 1983). United States v. Wade, 577 F. Supp. 1326 (E.D. Pa. 1983). Jackson Township Municipal Utilities Authority v. Hartford Accidental and Indemnity Co., 186 N.J. Super. 156 (N.J. Super. Ct. Ch. Div. 1982) . New Jersey Department of Environmental Protection v. Ventron Corp., 468 A.2d 150 (N.J. 1983). Hagerty v. L.& L. Marine Services, 788 F.2d 315 (5th Cir. 1987). Sterling v. Velsicol, 647 F. Supp. 303 (W.D. Tenn. 1986). Laxton v. Orkin Exterminating Co., 639 S.W.2d 431 (Tenn. 1982). Anderson v. W.R. Grace & Co., 628 F. Supp. 1219 (D. Mass. 1986). Brafford v. Susquehanna Corp., 586 F. Supp. 14 (D. Colo. 1984). Ayers v. Township of Jackson, 493 A.2d 1314 (N.J. 1985). Askey v. Occidental Chemical Corp. 102 A.2d 130 (N.Y. 1984). Ellis v. International Playtex, Inc., 745 F.2d 292 (4th Cir. 1984). Lansco, Inc. v. Department of Environmental Protection, 372 A.2d 322 (N.J. 1977). Lima v. United States, 708 F.2d 502 (10th Cir. 1983). In re Agent Orange Product Liability Litigation, 611 F. Supp. 1231 (E.D.N.Y. 1985). Bichler v. Eli Lilly & Co., 436 N.E.2d 182 (N.Y. 1982). Sindell v. Abbott Laboratories, 449 U.S. 912 (1980). American Products Corp. v. Liberty Mutual Insurance Co., 748 F.2d 760 (2nd Cir. 1984). Insurance Co. of North America v. Forty-Eight Insulations, Inc., 454 U.S. 1109 (1981). Eagle-Picher Industries, Inc. v. Liberty Mutual Insurance Co., 460 U.S. 1028 (1983). Keene Corp. v. Insurance Co. of North America, 455 U.S. 1007 (1982). Continental Insurance Companies v. Northeastern Pharmaceutical and Chemical Co., Inc., 811 F.2d 1180 (8th Cir. 1987). Mraz v. Canadian Universal Insurance Co., Ltd., 804 F.2d 1325 (4th Cir. 1986). Idaho v. Bunker Hill Co., 647 F. Supp. 1064 (D. Idaho 1986). City of Northglenn v. Chevron U.S.A. Inc., 634 F. Supp. 217 (D. Colo. 1986). U.S. Amex Co. v. Travellers Insurance Co., 336 N.W.2d (Mich. Ct. App. 1983). Buckeye Union Insurance Co. v. Liberty Solvents and Chemical Co., Inc., 477 N.E.2d 1227 (Ohio Ct. App. 1984). City of Milwaukee v. Allied Smelting Corp., 344 N.W.2d 523 (Wis. Ct. App. 1983). Great Lakes Container Corp. v. National Union Fire Insurance Co., 727 F.2d 30 (1st Cir. 1984). Kutsher's Country Club Corp. v. Lincoln Insurance Co., 465 N.Y.2d 136 (N.Y. Sup. Ct. 1983). Bankers Trust Co. v. Hartford Accident and Indemnity Co., 621 F. Supp. 685 (S.D.N.Y. 1981). Hazardous Substance Account Act (California). Spill Compensation and Control Act (New Jersey). Transamerican Insurance Co. v. Sunnes, 717 P.2d 631 (Or. 1986). Farm Family Mutual Insurance Co. v. Bagley, 409 N.Y.S.2d 294 (N.Y. App. Div. 1978).

Abstract: Pursuant to a legislative requirement, GAO provided information on the availability of insurance for individuals liable for the release of hazardous substances into the environment, particularly the: (1) judicial interpretation of pollution insurance policies; (2) frequency and severity of insurance claims; and (3) economic impact of pollution liability on the insurance market.

Findings/Conclusions: GAO found that: (1) although more than 100,000 companies generate, handle, and dispose of hazardous substances, few carry pollution liability coverage; (2) only one insurance company actively markets pollution insurance and it provides maximum annual coverage of about $12.5 million; and (3) although 1985 insurance claims payments were generally low, these claims were not necessarily indicative of the eventual magnitude of the insurance industry's payments. GAO also found that: (1) the Environmental Protection Agency (EPA) has not met the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) to establish the financial responsibility of all companies subject to pollution liability; (2) although the courts consistently hold companies liable for cleanup costs, pollution victims generally find it difficult to receive compensation; and (3) although judicial interpretation of pollution insurance contract coverage varies, it does provide a basis on which to draft provisions that could help reduce variability in the future.

Recommendation To Congress: Determining the amounts that insurers are paying is difficult because the industry does not have centralized, comprehensive data on these indemnity payments. Congress should consider requiring insurers or responsible parties, as appropriate, to report to EPA the amounts of indemnity payments made to cover pollution cleanups and related third-party bodily and property damage.

Recommendation To Agencies: The Administrator, EPA, should establish specific milestones leading to the timely implementation of financial responsibility regulations for the risks associated with classes of facilities covered by CERCLA section 108(b).

134218

[Key Elements of Effective Independent Oversight of DOE's Nuclear Facilities]. T-RCED-88-6. October 22, 1987. 14 pp. *Testimony* before the Senate Committee on Armed Services: Strategic Forces and Nuclear Deterrence Subcommittee; by J. Dexter Peach, Assistant Comptroller General,

Resources, Community, and Economic Development Division. Refer to T-RCED-88-30, March 31, 1988, Accession Number 135455; EMD-81-108, August 4, 1981, Accession Number 115979; and RCED-86-175, June 16, 1986, Accession Number 130260.

Contact: Resources, Community, and Economic Development Division.

Organization Concerned: Department of Energy.

Congressional Relevance: *Senate* Committee on Armed Services: Strategic Forces and Nuclear Deterrence Subcommittee.

Authority: S. 1085 (100th Cong.).

Abstract: GAO discussed the proposed Nuclear Protections and Safety Act of 1987, specifically the establishment of a Nuclear Safety Board to oversee the Department of Energy's (DOE) nuclear facilities. GAO noted that the proposal addressed five key elements it considers essential, specifically: (1) independent oversight; (2) technical expertise; (3) ability to perform reviews of DOE facilities as needed; (4) authority to require DOE to address the board's findings and recommendations; and (5) a system to provide public access to the board's findings and recommendations. GAO also noted that the legislation should clarify the: (1) board's review function as a specific responsibility; and (2) frequency with which the board will evaluate the implementation of DOE health and safety standards.

134238

Superfund: Improvements Needed in Work Force Management. RCED-88-1; B-227292. October 26, 1987. 83 pp. plus 5 appendices (28 pp.). *Report* to Congress; by Charles A. Bowsher, Comptroller General. Refer to FPCD-80-36, January 28, 1980, Accession Number 111399; GGD-85-72, September 4, 1985, Accession Number 127809; GGD-84-54, March 30, 1984, Accession Number 123797; GGD-85-24, May 17, 1985, Accession Number 127035; NSIAD-85-143, September 9, 1985, Accession Number 127906; Testimony, March 19, 1986, Accession Number 129370; Testimony, April 30, 1986, Accession Number 129767; Testimony, April 7, 1983, Accession Number 121042; RCED-88-39, January 15, 1988, Accession Number 134843; RCED-88-101, August 16, 1988, Accession Number 136581; and RCED-88-182, July 29, 1988, Accession Number 136756.

Issue Area: Environment: Assessing EPA's Cleanup of the Worst Abandoned Hazardous Waste Sites (6803); Federal Civilian Work Force: Other Issue Area Work (4891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency; Department of Defense; Office of Personnel Management; Environmental Protection Agency: Office of Solid Waste and Emergency Response.

Congressional Relevance: Congress.

Authority: Superfund Amendments and Reauthorization Act of 1986. Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Salary Reform Act of 1962. Civil Service Reform Act of 1978. Pay Comparability Act of 1970 (Federal). Executive Order 12552. OMB Bull. 86-8.

Abstract: Pursuant to a legislative requirement, GAO reviewed employee-related aspects of the Environmental Protection Agency's (EPA) Superfund program, focusing on the: (1) type and extent of skilled staff shortages; (2) extent to which skilled federal and state employees are leaving for private-sector positions; (3) pay differentials between the public and private sectors for skilled positions; (4) success of Department of Defense (DOD) and Office of Personnel Management (OPM) programs in retaining skilled personnel; and (5) training required to improve employee skills.

Findings/Conclusions: GAO found that: (1) 80 percent of Superfund employees believed that they worked in understaffed units; (2) units experienced problems obtaining the services of chemists, hydrologists, and toxicologists; (3) staffing and skill shortages resulted in delays in performing Superfund activities; and (4) EPA filled 533 of 773 additional authorized full-time positions for fiscal year (FY) 1987. GAO also found that: (1) the turnover rate of EPA Superfund employees was below the average federal employee rate for FY 1984 and 1985, but increased from 2.9 to 7.2 percent between FY 1985 and 1986; (2) over one-third of Superfund employees planned to look for other jobs in 1987; (3) 67 percent of former employees cited a lack of or limited advancement opportunities as a major reason for leaving employment; (4) pay for federal attorneys, chemists, and engineers trailed private-sector pay by 25 to 68 percent; (5) EPA is considering compensation improvement through bonuses and additional fringe benefits; (6) about 60 percent of current employees believed that they needed more training; and (7) EPA has developed a 2-year plan that should provide needed training.

Recommendation To Agencies: To develop a more informed basis for determining Superfund's staffing requirements and work-force skill mix, the Administrator, EPA, should examine the costs and benefits of using more objective techniques to determine staffing requirements (levels), including the collection of more specific historical time data from employees to help validate the reasonableness of its staffing estimates. To develop a more informed basis for determining Superfund's staffing requirements and work-force skill mix, the Administrator, EPA, should use productivity measures to gauge the appropriateness of the work-force size and skill mix, including regional variations. To meet present as well as future training needs, the Administrator, EPA, should direct the Office of Solid Waste and Emergency Response to implement its plans and proposed policies for improving the Superfund training program.

134247

Nuclear Health and Safety: Radiation Exposures for Some Cloud-Sampling Personnel Need To Be Reexamined. RCED-87-134; B-222195. September 29, 1987.

Released October 28, 1987. 49 pp. plus 7 appendices (35 pp.). *Report* to Sen. Alan Cranston, Chairman, Senate Committee on Veterans' Affairs; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-86-15, November 8, 1985, Accession Number 128548.

Issue Area: Energy: Other Issue Area Work (6491).

Contact: Resources, Community, and Economic Development Division.

Budget Function: National Defense: Defense-Related Activities (054.0); Veterans Benefits and Services: Other Veterans Benefits and Services (705.0).

Organization Concerned: Department of Defense; Defense Nuclear Agency.

Congressional Relevance: *House* Committee on Appropriations: Defense Subcommittee; *House* Committee on Armed Services; *Senate* Committee on Appropriations: Defense Subcommittee; *Senate* Committee on Armed Services; *Senate* Committee on Veterans' Affairs; *Sen.* Alan Cranston.

Authority: Veterans' Dioxin and Radiation Exposure Compensation Standards Act (P.L. 98-542).

Abstract: In response to a congressional request, GAO examined the Department of Defense's atmospheric nuclear weapons testing program to determine: (1) how many military personnel participated in the cloud-sampling work between 1952 and 1962 during operations Tumbler-Snapper, Redwing, and Dominic 1; and (2) the extent of their exposure to radiation.

Findings/Conclusions: GAO found that: (1) approximately 300 Air Force personnel took part in the sampling; (2) the amount of radiation personnel received was questionable due to inadequate information; (3) at two of the test sites, ground personnel failed to wear protective breathing devices when working around the aircraft used for the sampling; and (4) the records gathered at two of the sites contained a high error rate. GAO also found that: (1) the methods used to measure internal exposure to radiation were inadequate, since only one urine test was performed within a 24-hour period; (2) the monitoring devices installed in the cockpits showed a higher level of exposure than the devices the crews wore; and (3) individual records kept at one of the test sites showed a 6-percent error rate.

Recommendation To Agencies: The Secretary of Defense should direct the Defense Nuclear Agency (DNA) to correct the GAO-identified errors in the film badge exposure records of cloud-sampling personnel participating in operations Redwing and Dominic 1 and, given the frequency of such errors identified, review for similar errors the film badge exposure record of each Air Force individual who participated in any of the other atmospheric nuclear weapons tests. The Secretary of Defense should direct DNA to use integron readings in conjunction with film badge readings to better define the radiation dose received by cloud-sampling personnel for all atmospheric nuclear weapons tests, including operations Redwing and Dominic 1.

134302

Canadian Power Imports: Issues Related to Competitiveness. RCED-88-22; B-208231. October 19, 1987.

Released November 2, 1987. 7 pp. plus 1 appendix (1 p.). *Report* to Rep. Byron L. Dorgan; Sen. Kent Conrad; Sen. Quentin N. Burdick; by Keith O. Fultz, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-86-119, April 30, 1986, Accession Number 130080.

Issue Area: Energy: Other Issue Area Work (6491); International Trade and Commercial Policy: Other Issue Area Work (6391); Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Supply (271.0).

Organization Concerned: Department of Energy; Department of Commerce; Edison Electric Institute; Ad Hoc Coalition on International Electric Power Trade.

Congressional Relevance: *Rep.* Byron L. Dorgan; *Sen.* Kent Conrad; *Sen.* Quentin N. Burdick.

Abstract: In response to a congressional request, GAO examined the effects of imported power from Canada on domestic utilities to determine the: (1) extent of Canadian governmental subsidies to its electric power industry; (2) level and costs to Canadian and U.S. utilities of environmental standards applicable to fossil-fueled power plants; (3) impact of electricity imports on domestic coal producers; and (4) potential effects of proposed legislation.

Findings/Conclusions: GAO found that: (1) a study indicated that Canadian hydropower would remain competitive with U.S. electricity even if subjected to U.S. taxes; (2) because Canadian utilities and the provincial governments have not taken sufficient environmental actions to control sulfur dioxide emissions from their fossil-fueled power plants, Canadian utilities have an economic advantage in competition with U.S. utilities; (3) the importation of electricity from Canada has reduced the amount of coal which U.S. utilities would have otherwise consumed; (4) the amount of coal displacement would increase in the future based on the projected increases of electricity imports; and (5) although the proposed legislation would ensure that Canadian utilities which export electricity to the United States incur environmental control costs similar to those that domestic utilities incur, it could reduce Canadian electricity imports and increase oil imports and consumer costs.

134356

[Department of Defense Hazardous Waste Management]. T-NSIAD-88-4. November 5, 1987. 14 pp. plus 1 attachment (2 pp.). *Testimony* before the House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by Frank C. Conahan, Assistant Comptroller General, National Security and International Affairs Division. Refers to numerous GAO reports on hazardous waste.

Contact: National Security and International Affairs Division.

Organization Concerned: Department of Defense; Department of the Air Force: Tinker AFB, OK; Department of the Air Force: Andersen AFB, Guam; Department of the Air Force: Kelly AFB, TX; Department of the Navy: Naval Facilities Engineering Command: Navy Public Works Center, Guam; Department of the Air Force: McClellan AFB, CA; Department of the Air Force: Air Force Systems Command: Air Force Plant Representative Offices: Air Force Plant 44, Tuscon, AZ.

Congressional Relevance: *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee. .

Authority: Resource Conservation and Recovery Act of 1976. Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

Abstract: GAO discussed the Department of Defense's (DOD) compliance with environmental protection laws through its hazardous waste generation, storage, and disposal management, and disposal site cleanup efforts. GAO found that: (1) although it had previously cited storage and disposal problems at 12 installations, delayed disposal, slow construction of storage facilities, and limited hazardous waste reduction still existed; (2) the DOD Guam installations did not comply with the regulations because of their inability to dispose of waste; (3) although it provided a siting of a waste storage facility at Kelly Air Force Base (AFB), public hearings on environmental safety delayed the final permit; and (4) Tinker AFB initiated actions to reduce its waste generation and instituted preventive disposal controls. GAO also found that: (1) DOD created a program to identify hazardous waste disposal sites, assess their potential for contaminating the environment, and take appropriate corrective actions; (2) 6 of the 18 installations reviewed had problems which earlier regulatory involvement could have minimized; and (3) most regulatory agencies still had limited involvement in the program. In addition, GAO found that: (1) during a toxic oil spill at the Guam naval installation, the Navy did not provide personnel with adequate protective equipment, medical monitoring, hazardous substance handling and response, or storage

facilities with curbs to prevent spill runoff; and (2) although the Air Force has begun cleanup efforts of groundwater contamination around its plant, regulatory agencies' failure to initiate timely investigative actions has caused a delay in cleanup of the total site.

134430

Federal Land Management: Limited Action Taken To Reclaim Hardrock Mine Sites. RCED-88-21; B-222092. October 21, 1987.

Released November 17, 1987. 6 pp. plus 2 appendices (24 pp.). *Report* to Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-86-48, March 27, 1986, Accession Number 129435.

Issue Area: Natural Resources Management: Effectiveness of Policies and Procedures for Determining Federal Land Ownership Patterns (6912); Natural Resources Management: Other Issue Area Work (6991).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Conservation and Land Management (302.0).

Organization Concerned: Bureau of Land Management.

Congressional Relevance: *House* Committee on Appropriations: Interior Subcommittee; *House* Committee on Interior and Insular Affairs; *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *Senate* Committee on Appropriations: Interior Subcommittee; *Senate* Committee on Energy and Natural Resources; *Rep.* Michael L. Synar.

Authority: Land Policy and Management Act.

Abstract: In response to a congressional request, GAO revisited 30 unreclaimed mine sites that the Bureau of Land Management (BLM) believed to be abandoned without reclamation, to assess the status of reclamation efforts at the sites.

Findings/Conclusions: GAO found that: (1) 6 of the 30 sites have been completely reclaimed, and 4 have been partially reclaimed; (2) mining resumed on 5 of the sites, delaying the necessity for reclamation; (3) BLM reclaimed 1 site, at a cost of $4,000; (4) the 19 remaining inactive mine sites will cost an estimated $87,400 to reclaim; (5) BLM took no action on 15 of the 19 inactive sites after the initial GAO report; and (6) BLM does not believe that it is necessary to require surety bonds for all mining operations.

Recommendation To Agencies: The Director, BLM, should direct BLM state officials to contact operators or claim holders of known unreclaimed mine sites as soon as feasible to urge their reclamation. Priority should be given to those mine sites that are not covered by financial guarantees.

134435

Internal Controls: EPA Needs To Improve Controls Over Change Orders and Claims. RCED-88-16; B-216946. November 17, 1987. 7 pp. plus 6 appendices (18 pp.). *Report* to Lee M. Thomas, Administrator, Environmental Protection Agency; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division.

Issue Area: Internal Control and Financial Management System Audits: Effectiveness of Federal Agencies in Implementing the Federal Managers' Financial Integrity Act (7401).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Financial Management and Information Systems (998.0).

Organization Concerned: Environmental Protection Agency; Environmental Protection Agency: Office of Municipal Pollution Control.

Authority: Federal Managers' Financial Integrity Act of 1982. Water Pollution Control Act.

Abstract: GAO provided information on the Environmental Protection Agency's (EPA) internal controls over its Construction Grants Program and the actions taken to correct three grants management weaknesses that GAO identified.

Findings/Conclusions: GAO found that, while EPA has alleviated three identified grants management weaknesses: (1) many of the change orders and claims that GAO reviewed had missing or incomplete documentation; (2) reviewing agencies misinterpreted and inconsistently applied EPA guidance; and (3) EPA was not monitoring the reviewing agencies.

Recommendation To Agencies: The Administrator, EPA, should direct the Director, Office of Municipal Pollution Control, to issue a memorandum directive on the change orders and claims guidance to clearly explain what the intent of the guidance is and what documentation is required to support the need for the work and the reasonableness of the costs. The Administrator, EPA, should direct EPA's regional offices to carry out their monitoring and oversight responsibilities of reviewing agencies' review and processing of change orders and claims. The Administrator, EPA, should direct the Director, Office of Municipal Pollution Control, to perform follow-up reviews of the corrective actions to ascertain that the internal controls are in place, being implemented, and are effective in providing reasonable assurance that change orders and claims are adequately supported and properly evaluated. The Administrator, EPA, should include the weaknesses in the annual Financial Integrity Act report to the President and Congress.

134451

[Availability of Insurance for Petroleum Underground Storage Tanks]. T-RCED-88-9. November 18, 1987. 8 pp. *Testimony* before the House Committee on Small Business: Energy and Agriculture Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division.

Contact: Resources, Community, and Economic Development Division.

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Small Business: Energy and Agriculture Subcommittee.

Authority: Superfund Amendments and Reauthorization Act of 1986. Solid and Hazardous Waste Amendments of 1984.

Abstract: GAO discussed the availability of insurance for petroleum underground storage tanks. GAO found that: (1) the Environmental Protection Agency (EPA) proposed regulations containing a $1-million to $6-million financial responsibility requirement for petroleum tank owners and operators, a 3- to 5-year period to install leak detection devices, and a 10-year period to upgrade or replace tanks already in the ground; (2) two insurance companies provide insurance for about 15 percent of all U.S. tanks but offer maximum policy limits of only $2 million; (3) at least six insurance companies withdrew from this insurance market and others were reluctant to enter due to potentially high losses resulting from leaks; (4) many of the methods EPA allowed tank owners to use to demonstrate financial responsibility were more expensive than

insurance; and (5) many small businesses were unable to obtain the insurance or the alternatives to comply with EPA requirements. GAO believes that: (1) accelerating implementation of safety standards and phasing in implementation of the financial responsibility regulations would allow additional time for insurers to reevaluate the risks and tank owners to pursue other financial responsibility methods; and (2) EPA may want to reevaluate its proposed minimum aggregate level and self-insurance requirements.

134477

Nuclear Waste: Quarterly Report on DOE's Nuclear Waste Program as of September 30, 1987. RCED-88-56FS; B-202377. November 19, 1987. 29 pp. plus 2 appendices (4 pp.). *Fact Sheet* to Sen. J. Bennett Johnston, Chairman, Senate Committee on Energy and Natural Resources; Sen. James A. McClure, Ranking Minority Member, Senate Committee on Energy and Natural Resources; by Keith O. Fultz, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-87-103FS, March 20, 1987, Accession Number 132594; RCED-87-200FS, September 10, 1987, Accession Number 133936; and numerous reports on the nuclear waste program.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).

Organization Concerned: Department of Energy; Washington; Yakima Indian Nation.

Congressional Relevance: *Senate* Committee on Energy and Natural Resources; *Sen.* James A. McClure; *Sen.* J. Bennett Johnston.

Authority: Nuclear Waste Policy Act of 1982 (P.L. 97-425). Safe Drinking Water Act. 10 C.F.R. 961. S. 1668 (100th Cong.). H.R. 2967 (100th Cong.). H.R. 2888 (100th Cong.). H.R. 2700 (100th Cong.).

Abstract: In response to a congressional, GAO presented its quarterly report on the status of the Department of Energy's (DOE) nuclear waste program.

Findings/Conclusions: GAO found that: (1) DOE revised the release dates for its draft site characterization plans for each proposed first repository site to allow the affected states and Indian tribes to present their concerns; (2) DOE set back the date for starting exploratory drilling at the Hanford site because it needed to obtain drilling permits from the state; (3) because Congress did not act on the DOE request to delay work for a second repository, work on the second repository will resume; (4) Congress held hearings on several bills aimed at redirecting or significantly changing the nuclear waste management program; (5) the Nuclear Waste Fund received about $140 million in fees and investment income, of which DOE obligated about $72 million for program activities; and (6) the fund balance as of September 30, 1987, was about $1.5 billion.

134530

Hazardous Waste: Tinker Air Force Base's Improvement Efforts. NSIAD-88-4; B-213706. October 29, 1987.

Released December 1, 1987. 36 pp. plus 1 appendix (1 p.). *Report* to Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by Frank C. Conahan, Assistant Comptroller General, National Security and International Affairs Division. Refer to NSIAD-85-91, July 19, 1985, Accession Number 127583; and NSIAD-87-164BR, July 10, 1987, Accession Number 133461.

Issue Area: Environment: Other Issue Area Work (6891); Air Force: Other Issue Area Work (5491).

Contact: National Security and International Affairs Division.

Budget Function: National Defense: Defense-Related Activities (054.0).

Organization Concerned: Department of the Air Force: Tinker AFB, OK.

Congressional Relevance: *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *Rep.* Michael L. Synar.

Authority: Resource Conservation and Recovery Act of 1976. Water Pollution Control Act Amendments of 1972 (Federal).

Abstract: Pursuant to a congressional request, GAO provided information on Tinker Air Force Base's efforts to correct its hazardous waste management problems.

Findings/Conclusions: GAO found that Tinker: (1) implemented a recycling system to reuse hazardous substances generated at the base; (2) installed sensor-activated cutoff valves in its plating and chemical cleaning facility to regulate the flow of industrial wastewater entering its water treatment center; and (3) procured recycling equipment, but will not be able to use it until 1988. GAO also found that: (1) pollution continues to reach the base's streams and groundwater; (2) Tinker requires contractors involved in off-base hazardous waste shipments to use disposal sites that comply with the Resource Conservation and Recovery Act's provisions; (3) Tinker collected $52,000 and expects to collect $24,000 in overpayments for hazardous waste shipped off base because of its improved accounting controls; and (4) regulatory agency officials and Tinker believe that it could take years to completely resolve the remaining pollution problems because of their size and complexity.

134600

[Attainment of EPA's Ozone Standard]. T-RCED-87-8. April 27, 1987. 19 pp. plus 5 attachments (17 pp.). *Testimony* before the House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-86-6, December 18, 1985, Accession Number 129022; and RCED-85-121, September 30, 1985, Accession Number 128483.

Contact: Resources, Community, and Economic Development Division.

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee.

Authority: Clean Air Act. Clean Air Act Amendments of 1970. Clean Air Act Amendments of 1977.

Abstract: GAO discussed its ongoing review of: (1) the Environmental Protection Agency's (EPA) efforts to protect the public health from ozone; and (2) states' compliance with EPA-established ozone standards. GAO found that: (1) EPA and the states failed to achieve the Clean Air Act's ozone reduction goals; (2) the various nonattainment areas differed according to the degree necessary to reduce emissions to meet standards; and (3) EPA was considering more flexible deadlines for some areas that could not attain the standards for many years. GAO believes that, before EPA implements such plans, it should: (1) evaluate the extent to which areas implement their control programs; (2)

review existing control measure enforcement; (3) identify additional necessary measures; (4) publish guidelines for dealing with nonattainable areas; (5) address reluctance to implement controls that have economic impacts on lifestyles; and (6) take a more active decisionmaking role on the national impact of certain ozone levels.

134601

[Improvements Needed To Control the Disposal of PCB's]. T-RCED-88-10. December 9, 1987. 6 pp. plus 1 attachment (1 p.). *Testimony* before the House Committee on Energy and Commerce: Transportation, Tourism, and Hazardous Materials Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-86-77, February 11, 1986, Accession Number 129359; CED-81-1, October 28, 1980, Accession Number 113650; CED-82-21, December 30, 1981, Accession Number 117205; and RCED-87-127, May 20, 1987, Accession Number 133577.

Contact: Resources, Community, and Economic Development Division.
Organization Concerned: Environmental Protection Agency.
Congressional Relevance: *House* Committee on Energy and Commerce: Transportation, Tourism, and Hazardous Materials Subcommittee. .
Authority: Toxic Substances Control Act. Resource Conservation and Recovery Act of 1976. Solid Waste Disposal Act. H.R. 3070 (100th Cong.).
Abstract: GAO discussed: (1) federal regulation of the handling and disposal of polychlorinated biphenyls (PCB) under the Toxic Substances Control Act; and (2) a legislative proposal to improve this regulation. GAO noted that the Environmental Protection Agency (EPA): (1) does not have adequate control over PCB handling and disposal; (2) has not met legislative deadlines for issuing PCB regulations; and (3) estimates that PCB disposal demand will peak over the next several years. GAO also noted that the proposed legislation: (1) establishes nationwide criteria for PCB permits; (2) extends EPA permit requirements to include all intermediate operators; and (3) emphasizes periodic inspections of all PCB handlers and focuses on the correction of regulatory deficiencies as soon after inspection as possible. GAO supports these features of the proposed legislation and believes that further legislation should impose financial responsibility requirements on PCB handlers.

134620

[H.R. 3504: Pesticide Monitoring Improvements Act]. T-RCED-88-12. December 14, 1987. 8 pp. *Testimony* before the House Committee on Energy and Commerce: Health and the Environment Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-86-219, September 26, 1986, Accession Number 131729; and RCED-87-7, October 27, 1986, Accession Number 131730.

Contact: Resources, Community, and Economic Development Division.
Organization Concerned: Food and Drug Administration.
Congressional Relevance: *House* Committee on Energy and Commerce: Health and the Environment Subcommittee.
Authority: H.R. 3504 (100th Cong.).
Abstract: GAO discussed proposed legislation which would require the Food and Drug Administration (FDA) to periodically monitor imported foods for pesticide contamination. GAO found that FDA: (1) did not periodically sample foods imported from countries that regularly exported to the United States; (2) has not conducted an overall analysis to determine what gaps exist in its monitoring and sampling procedures; and (3) lacks adequate information about the types of pesticides foreign countries use on foods. GAO believes that FDA should: (1) require importers to identify the pesticides used on food they import into the United States; and (2) exchange information with foreign countries on pesticides. GAO also believes that the proposed legislation would enhance FDA ability to monitor imported foods for pesticide violations.

134631

[Closure Status of RCRA Hazardous Waste Land Disposal Facilities]. T-RCED-88-13. December 5, 1987. 7 pp. plus 2 attachments (2 pp.). *Testimony* before the House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-87-60BR, January 27, 1987, Accession Number 132256; and RCED-88-115, July 19, 1988, Accession Number 136383.

Contact: Resources, Community, and Economic Development Division.
Organization Concerned: Environmental Protection Agency.
Congressional Relevance: *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee. .
Authority: Resource Conservation and Recovery Act of 1976.
Abstract: GAO discussed the Environmental Protection Agency's (EPA) compliance with the Resource Conservation and Recovery Act's requirements for closure of hazardous waste land disposal facilities. GAO found that: (1) the estimate of the number of disposal facilities requiring closure has increased from 995 to 1,161; (2) the increases occurred because some facilities which had planned to continue operation later decided to close and EPA discovered new sites; (3) EPA and the states approved 645 of the 902 closure plans they received; (4) 32 percent of the facilities with approval plans completed the closure process; and (5) 516 facilities either have not submitted closure plans or have not received approval of their plans. GAO also found that EPA: (1) stated that it would not meet the regulatory time frames because of its limited resources and increased work load; (2) needed to further investigate 80 of the 376 facilities that completed the closure process because they could pose environmental risks; and (3) plans to complete 60 percent of the closures by the end of 1988. GAO believes that EPA and the states should continue monitoring facilities that are closing until they complete closure and corrective actions.

134643

Hazardous Waste: Facility Inspections Are Not Thorough and Complete. RCED-88-20; B-229105. November 17, 1987.

Released December 16, 1987. 60 pp. plus 5 appendices (7 pp.). *Report* to Rep. Thomas A. Luken, Chairman, House Committee on Energy and Commerce: Transportation, Tourism, and Hazardous Materials Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-88-140, June 8, 1988, Accession Number 136112; and RCED-88-115, July 19, 1988, Accession Number 136383.

Issue Area: Environment: Assessing EPA's Efforts To Protect Public Health and the Environment by Controlling Hazardous Waste From Generation To Disposal (6802).

Contact: Resources, Community, and Economic Development Division.
Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).
Organization Concerned: Environmental Protection Agency; Environmental Protection Agency: Office of Solid Waste and Emergency Response.
Congressional Relevance: *House* Committee on Energy and Commerce: Transportation, Tourism, and Hazardous Materials Subcommittee; *Rep.* Thomas A. Luken.
Authority: Resource Conservation and Recovery Act of 1976.
Abstract: Pursuant to a congressional request, GAO examined the thoroughness and completeness of hazardous waste handler inspections conducted by the Environmental Protection Agency (EPA) and authorized states under the Resource Conservation and Recovery Act (RCRA).
Findings/Conclusions: GAO found that: (1) EPA inspection experts identified 200 RCRA violations at 22 of 26 facilities inspected between December 1986 and May 1987; (2) initial inspections failed to detect an additional 181 violations at those facilities; (3) two-thirds of missed violations represented immediate and serious environmental threats; and (4) 15 inspection reports were incomplete. GAO also found that: (1) EPA inspection guidance was incomplete; (2) EPA has not established specific qualification standards for RCRA inspectors or continuing and mandatory inspector training programs; (3) lack of training significantly contributed to poor inspector performance; (4) RCRA inspections received limited oversight; and (5) EPA is reconsidering its elimination of an oversight target for regional offices and is also reevaluating how best to ensure the thoroughness and completeness of RCRA inspections.
Recommendation To Agencies: The Administrator, EPA, should ensure that inspection guidance and regulations on how to conduct inspections are issued as scheduled. The Administrator, EPA, should develop and implement a continuing and mandatory RCRA inspector training program. To ensure that thorough and complete inspections are conducted and that information on inspection quality is available for use in determining the frequency of future oversight inspections, and in developing and assessing inspector training needs, the Administrator, EPA, should reinstate the target requirement that regions annually oversee 10 percent of state RCRA inspections and ensure that state performance in conducting these inspections is addressed in state grant reviews performed by the regional offices. To ensure that thorough and complete inspections are conducted and that information on inspection quality is available for use in determining the frequency of future oversight inspections, and in developing and assessing inspector training needs, the Administrator, EPA, should reinstate the requirement that regional oversight of state RCRA inspections be evaluated and reported in headquarters' regional program reviews. To ensure that thorough and complete inspections are conducted and that information on inspection quality is available for use in determining the frequency of future oversight inspections, and in developing and assessing inspector training needs, the Administrator, EPA, should develop and implement a system to provide routine oversight over EPA regional and EPA contractor inspections, as well as documenting and reporting the results to EPA headquarters.

134766

Environmental Funding: DOE Needs To Better Identify Funds for Hazardous Waste Compliance. RCED-88-62; B-229303. December 16, 1987. 9 pp. plus 2 appendices (2 pp.). *Report* to Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-86-192, September 8, 1986, Accession Number 131121; RCED-87-30, November 4, 1986, Accession Number 131661; RCED-86-51FS, November 29, 1985, Accession Number 128653; T-RCED-88-24, March 10, 1988, Accession Number 135246; T-RCED-88-30, March 31, 1988, Accession Number 135455; RCED-88-130, March 28, 1988, Accession Number 135666; and T-RCED-88-61, August 23, 1988, Accession Number 136742.

Issue Area: Energy: Other Issue Area Work (6491).
Contact: Resources, Community, and Economic Development Division.
Budget Function: National Defense: Atomic Energy Defense Activities (053.0).
Organization Concerned: Department of Energy.
Congressional Relevance: *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *Rep.* Michael L. Synar.
Authority: Resource Conservation and Recovery Act of 1976. Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Executive Order 12088.
Abstract: In response to a congressional request, GAO reviewed the Department of Energy's (DOE) funding for activities to comply with the Resource Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA).
Findings/Conclusions: GAO found that DOE cannot: (1) specifically identify budgeted or expended RCRA and CERCLA funds, since they are not part of its defense operations allotment; (2) demonstrate compliance with Executive Order 12088, which requires agencies to ensure that they request sufficient funds for compliance with environmental standards; (3) demonstrate proper internal controls over the funding; and (4) promptly respond to Congress's concerns regarding its environmental funding. GAO noted that, although DOE has taken some action to separately budget and account for RCRA and CERCLA funds, these efforts will not identify funding for a major portion of its compliance activities.
Recommendation To Agencies: The Secretary of Energy should specifically budget and account for all DOE RCRA and CERCLA funds. This effort should include: (1) identifying the funds in future DOE budgets and highlighting them to the Congress; and (2) creating separate accounts in the DOE accounting system to track expended RCRA and CERCLA dollars.

134807

Drug Control: U.S.-Mexico Opium Poppy and Marijuana Aerial Eradication Program. NSIAD-88-73; B-225282. January 11, 1988. 46 pp. plus 2 appendices (9 pp.). *Report* to Congress; by Frank C. Conahan (for Charles A. Bowsher, Comptroller General). Refer to GGD-77-6, February 18, 1977, Accession Number 100613; GGD-80-4, October 25, 1979, Accession Number 110663; and NSIAD-88-114, March 1, 1988, Accession Number 135305.

Issue Area: Foreign Economic Assistance: Effectiveness of Structure of U.S. Bilateral Economic Assistance Programs With Country and Regional Focuses To Accomplish International Objectives (6201); Administration of Justice: Obstacles Congress and Agencies Should Address in Coordinating Law Enforcement Resources (4701).

Contact: National Security and International Affairs Division.

Budget Function: International Affairs: Foreign Economic and Financial Assistance (151.0).

Organization Concerned: Department of State; Department of State: Bureau of International Narcotics Matters; Mexico: Office of the Attorney General.

Congressional Relevance: *House* Select Committee on Narcotics Abuse and Control; *House* Committee on Appropriations: Foreign Operations Subcommittee; *House* Committee on Foreign Affairs; . *Senate* Committee on Appropriations: Foreign Operations Subcommittee; *Senate* Committee on Foreign Relations; Congress.

Authority: Anti-Drug Abuse Act of 1986. Foreign Assistance Act of 1961 (22 U.S.C. 2291). Agreement Relating to Additional Cooperative Arrangements To Curb the Illegal Traffic in Narcotics, June 2, 1977, United States-Mexico, 29 U.S.T. 2483, T.I.A.S. No. 8952 .

Abstract: Pursuant to a legislative requirement, GAO reviewed the joint U.S.-Mexico opium poppy and marijuana aerial eradication program in terms of the extent to which: (1) the program reduced the Mexican poppy and marijuana crops; (2) Mexico effectively used U.S.-provided aircraft and other resources; and (3) formal bilateral agreements provided the ongoing cooperation needed to expeditiously eliminate opium poppies and marijuana in Mexico.

Findings/Conclusions: GAO found that: (1) although initially the aerial eradication program significantly reduced opium poppy and marijuana cultivation in Mexico, farmers developed new techniques to make such eradication difficult; (2) Mexico has reemerged as a prominent marijuana supplier; and (3) the gap between crop cultivation and eradication will probably continue to widen. GAO also found that Mexico's Office of the Attorney General, which administered the aerial eradication program: (1) underused U.S. aircraft, primarily because of maintenance deficiencies and an insufficient number of pilots; and (2) disagreed with the United States and contractors as to the cause of and responsibility for correcting deficiencies. In addition, GAO found that U.S. and Mexican officials: (1) agreed that the program needed additional aircraft, but purchased them without a bilateral analysis of the need; (2) lacked formal bilateral agreements addressing the frequency or scope of aerial surveys, annual eradication targets, or program validation and evaluation; and (3) failed to address problems involving insufficient spare parts, low pilot salaries, and inadequate program monitoring.

Recommendation To Agencies: The Secretary of State should instruct the Assistant Secretary for International Narcotics Matters to negotiate with the government of Mexico to revise the formal agreements which form the framework of the bilateral program, to include provisions for: (1) developing comprehensive aerial surveys to identify the extent and location of opium poppy and marijuana cultivation; (2) setting annual eradication goals consistent with reasonable standards for aircraft use and availability; and (3) validating and evaluating the program's activities and progress. To avoid the problems which developed because the current maintenance services contract does not clearly define the responsibilities of Mexico's Office of the Attorney General and the contractor, the Assistant Secretary for International Narcotics Matters should negotiate with the government of Mexico to define the scope of the next contractor's responsibilities and financial accountability for: (1) determining maintenance requirements and maintaining spare parts inventories which are reasonable in relation to the distance of the program from its major suppliers and to the mission and deployment of the air fleet; (2) procuring spare parts and repairs and distributing spare parts; and (3) security of on-hand inventories. Once the contractor's responsibilities and liabilities have been established, the contract should ensure that the contractor is provided with sufficient authority to fulfill its obligations. The Secretary of State should not request funding to purchase aircraft for the program in Mexico unless the Assistant Secretary for International Narcotics Matters has determined the: (1) extent of eradication which Mexico's Office of the Attorney General could accomplish if it uses its existing air fleet in accordance with reasonable standards for use and availability; and (2) number and type of additional aircraft, if any, which Mexico's Office of the Attorney General needs to achieve complete crop control.

134827

Hazardous Waste: Corrective Action Cleanups Will Take Years To Complete. RCED-88-48; B-219849. December 9, 1987.

Released January 14, 1988. 6 pp. plus 7 appendices (31 pp.). *Report* to Rep. Thomas A. Luken, Chairman, House Committee on Energy and Commerce: Transportation, Tourism, and Hazardous Materials Subcommittee; Rep. James J. Florio; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-85-69, March 29, 1985, Accession Number 126612; RCED-88-115, July 19, 1988, Accession Number 136383; and RCED-88-169, August 3, 1988, Accession Number 136767.

Issue Area: Environment: Assessing EPA Implementation of Hazardous and Solid Waste Management Mandates (6811).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce: Transportation, Tourism, and Hazardous Materials Subcommittee; *Rep.* James J. Florio; *Rep.* Thomas A. Luken.

Authority: Resource Conservation and Recovery Act of 1976. Federal Managers' Financial Integrity Act of 1982. Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

Abstract: In response to a congressional request, GAO reviewed the Environmental Protection Agency's (EPA) efforts to implement the corrective action provisions of the 1984 amendments to the Resource Conservation and Recovery Act of 1976 (RCRA), to determine: (1) the number of hazardous waste facilities requiring corrective action; (2) the length of time it would take to implement the corrective action; (3) the system EPA plans to use to identify priorities among the facilities requiring corrective action; (4) the cleanup standards EPA will apply as compared to Superfund standards; and (5) how and when EPA would decide to transfer a facility to the Superfund Program.

Findings/Conclusions: GAO found that EPA: (1) estimated that of the 4,800 treatment, storage, and disposal facilities requiring corrective action, about 2,500 would need extensive cleanup; (2) projected that it would take until fiscal year 2005 to begin corrective action at all the facilities; (3) estimated that some cleanup actions would take 20 years to complete; (4) is conducting preliminary studies of about 660 land disposal facilities that are closing to determine if they are causing contamination; and (5) is considering combining RCRA facilities and Superfund sites needing corrective action to determine which sites and

facilities pose the greatest risk. GAO also found that EPA: (1) plans to develop health-based estimates for all the chemicals found and tested at the RCRA facilities; and (2) projected that it could transfer about 800 RCRA facilities to Superfund for cleanup because many facility owners were bankrupt, debarred from operating under RCRA, or unwilling to clean up their facilities.

134828

Biotechnology: Role of Institutional Biosafety Committees. RCED-88-64BR; B-223522. December 14, 1987.

Released January 14, 1988. 23 pp. plus 2 appendices (21 pp.). *Briefing Report* to Rep. Robert A. Roe, Chairman, House Committee on Science, Space, and Technology; by Sarah P. Frazier, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-86-39BR, October 25, 1985, Accession Number 128383.

Issue Area: Science and Technology Policy and Programs: Assessing How Federally Supported Research Contributes to the Development of Biotechnology Regulation (9306).

Contact: Resources, Community, and Economic Development Division.

Budget Function: General Science, Space, and Technology: General Science and Basic Research (251.0).

Organization Concerned: National Institutes of Health.

Congressional Relevance: *House* Committee on Science, Space, and Technology: Investigations and Oversight Subcommittee; *House* Committee on Science, Space, and Technology; *Rep.* Robert A. Roe.

Abstract: Pursuant to a congressional request, GAO assessed institutional biosafety committees' implementation of the federal guidelines applicable to the environmental release of genetically engineered organisms, focusing on their: (1) membership composition; (2) functions and activities; (3) implementation of the National Institutes of Health (NIH) guidelines for research involving recombinant deoxyribonucleic acid (DNA) molecules; and (4) role in federal regulation of genetically engineered organisms.

Findings/Conclusions: GAO found that: (1) members with genetic engineering backgrounds dominated the committees; (2) committee functions and activities varied, with 60 percent exclusively reviewing recombinant DNA research, 23 percent reviewing DNA research proposals at least half of their time and overseeing research on infectious diseases, hazardous chemicals, or radioactive materials, and 17 percent devoting less than half their time reviewing DNA research; and (3) both public- and private-sector biosafety committees generally complied with NIH guidelines. GAO also found that, while committees understood their relationship with NIH, their relationship with other federal agencies in reviewing proposals was less clear. In addition, GAO found that a recent incident involving genetic experimentation illustrated problems with: (1) university policies regarding the NIH guidelines; (2) committee awareness of research activities; (3) the definition of what constitutes a deliberate release of genetically engineered organisms; (4) guideline enforcement; and (5) the relationship between committees and federal agencies.

134840

Superfund: Extent of Nation's Potential Hazardous Waste Problem Still Unknown. RCED-88-44; B-226922. December 17, 1987.

Released January 19, 1988. 38 pp. plus 1 appendix (1 p.). *Report* to Rep. James J. Florio; Rep. Thomas A. Luken, Chairman, House Committee on Energy and Commerce: Transportation, Tourism, and Hazardous Materials Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to CED-82-91, June 2, 1982, Accession Number 118609; RCED-85-75, March 26, 1985, Accession Number 126837; RCED-87-153, July 24, 1987, Accession Number 133794; RCED-87-170, August 29, 1987, Accession Number 134121; and T-RCED-88-24, March 10, 1988, Accession Number 135246.

Issue Area: Environment: Assessing Effectiveness and Efficiency of the Use of Superfund Resources (6813).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency; California; Connecticut; Louisiana; New York; Texas.

Congressional Relevance: *House* Committee on Energy and Commerce: Transportation, Tourism, and Hazardous Materials Subcommittee; *Rep.* James J. Florio; *Rep.* Thomas A. Luken.

Authority: Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Resource Conservation and Recovery Act of 1976. Superfund Amendments and Reauthorization Act of 1986. Safe Drinking Water Act. Atomic Energy Act of 1954. Uranium Mill Tailings Radiation Control Act of 1978. Water Pollution Control Act Amendments of 1972 (Federal). Water Pollution Control Act.

Abstract: Pursuant to a congressional request, GAO studied the extent to which the Environmental Protection Agency (EPA) increased its hazardous waste site discovery efforts to determine the: (1) total possible number and types of sites that required investigation; (2) status of 837 sites EPA did not include in its 1985 Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) inventory; (3) reasons why EPA did not place the sites on its National Priorities List (NPL); and (4) states' efforts to develop comprehensive inventories of their hazardous waste sites.

Findings/Conclusions: GAO found that, although 130,000 to 425,000 hazardous waste sites qualified for inclusion in CERCLIS, it contained only about 27,000 sites. GAO also found that EPA: (1) offered states little direction, guidance, or money to conduct site identification and had not reviewed any state programs to determine their adequacy; (2) assigned a higher priority to evaluating and cleaning up sites already on CERCLIS than to identifying additional potential sites; (3) limited its grants to states to evaluating reported sites; and (4) had not instructed its regions or the states as to when they should add sites to CERCLIS. In addition, GAO found that 494 of the 837 sites not included in 1985 CERCLIS were still missing from the inventory because the regions: (1) lacked sufficient funds; (2) wanted to first verify the presence of hazardous wastes; (3) believed that they could clean up the sites more efficiently without EPA involvement; or (4) felt obliged to report only those sites eligible for federal cleanup.

Recommendation To Agencies: The Administrator, EPA, should develop guidelines and criteria for assessing state hazardous waste site programs under section 3012 of the Resource Conservation and Recovery Act and evaluate the state programs according to these criteria. As part of these evaluations, EPA should examine the states' need for federal funding or other forms of assistance. To ensure that the public, Congress, and EPA have a more accurate view of the nation's hazardous waste problem, the Administrator, EPA,

should issue a formal CERCLIS reporting policy to be followed by the regions and the states. The Administrator should: (1) develop a statement of the EPA position on the need for full reporting of sites identified by states as potential hazardous waste sites; (2) issue instructions to EPA regions on the types of sites that should be added to CERCLIS and when they should be added, and periodically assess how well each EPA region is following these instructions; and (3) advise each state of these reporting criteria and the importance of complying with them, and direct each region to work with the states to implement these criteria.

134843

Superfund: Insuring Underground Petroleum Tanks. RCED-88-39; B-224651. January 15, 1988. 64 pp. plus 2 appendices (5 pp.). *Report* to Congress; by Charles A. Bowsher, Comptroller General. Refer to RCED-88-2, October 16, 1987, Accession Number 134208; RCED-88-1, October 26, 1987, Accession Number 134238; GGD-86-56FS, April 9, 1986, Accession Number 129554; HRD-86-120BR, July 22, 1986, Accession Number 130549; and HRD-88-64, July 29, 1988, Accession Number 136658.

Issue Area: Environment: Availability of Adequate Insurance for Liabilities Associated With Hazardous Waste (6812).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: Congress.

Authority: Superfund Amendments and Reauthorization Act of 1986. Water Pollution Control Act Amendments of 1972 (Federal). Solid and Hazardous Waste Amendments of 1984. Product Liability Risk Retention Act of 1981. Risk Retention Act of 1986. Water Pollution Control Act.

Abstract: Pursuant to a legislative requirement, GAO determined the availability of pollution liability insurance for owners and operators of petroleum storage and distribution facilities, focusing on: (1) the current and projected availability of tank insurance; (2) tank owners' and operators' ability to maintain financial responsibility through methods other than insurance; (3) the experience of marine vessel owners and operators in getting insurance for similar liabilities; and (4) available options to assist tank owners and operators in demonstrating financial responsibility.

Findings/Conclusions: GAO found that: (1) there was only one substantial provider of tank insurance as of July 1987; (2) at least six other firms have dropped out of this insurance market over the last several years; and (3) some other firms have expressed interest in expanding into the market, but are generally months away from offering insurance policies. GAO also found that: (1) the Environmental Protection Agency (EPA) allows tank owners and operators methods other than insurance for demonstrating financial responsibility, including self-insurance, letters of credit, and surety bonds; (2) major oil companies and other large corporations were most likely to use these other methods; (3) marine pollution liability insurance was generally more available and affordable because of reduced risks resulting from heavy regulation and monitoring; (4) many tank owners and operators will experience difficulty in demonstrating financial responsibility; and (5) one approach to help tank owners and operators demonstrate financial responsibility would involve gradual EPA implementation of incentives for technical improvements, development of state regulatory and enforcement programs, and tank upgrading and replacement regulations.

Recommendation To Agencies: The Administrator, EPA, should implement financial responsibility requirements over a timetable that: (1) is realistic in terms of availability of insurance and other financial assurance methods; (2) provides incentives for prompt and appropriate technical improvements by tank owners and operators; and (3) allows for the development of appropriate state regulatory and enforcement programs. The Administrator, EPA, should modify the timetable for tank upgrading or replacement by establishing a staggered schedule under which older tanks will be upgraded or replaced first. The Administrator, EPA, should continue to investigate the appropriate levels of liability for tank owners and proper requirements for self-insurance.

134872

Air Pollution: Information on EPA's Efforts To Control Emissions of Sulfur Dioxide. RCED-88-32; B-217221. December 7, 1987.

Released January 25, 1988. 3 pp. plus 5 appendices (23 pp.). *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-85-129, August 16, 1985, Accession Number 127916.

Issue Area: Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Rep.* John D. Dingell.

Authority: Clean Air Act. Acid Precipitation Act of 1980.

Abstract: In response to a congressional request, GAO provided information on the status of the Environmental Protection Agency's (EPA) efforts to control sulfur dioxide emissions through development of the Regional Acid Deposition Model (RADM) and the Complex Terrain Dispersion Model (CTDM), which would estimate the movement, transformation, and effect of emissions.

Findings/Conclusions: GAO found that EPA: (1) has experienced delays and cost overruns in the development of both RADM and CTDM as a result of changes in the scope of work and funding constraints; (2) originally estimated about $5.7 million for the development and evaluation of CTDM but has already expended approximately $8.5 million in fiscal year 1987; (3) estimated that the final RADM evaluation plan would cost about $30 million and would be completed in 1990; and (4) needs to further improve both models to make them capable of providing it with the information it requires to regulate emissions. GAO also found that EPA approved 48 revisions to 19 state and 3 territory implementation plans from 1984 through 1986, which increased allowable sulfur dioxide emissions by about 250,000 tons per year.

134873

Air Pollution: EPA's Process for Planning, Budgeting, and Reviewing Research. RCED-88-47BR; B-226223. December 15, 1987.

Released January 25, 1988. 17 pp. plus 3 appendices (4 pp.). *Briefing Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce:

Oversight and Investigations Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division.

Issue Area: Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Rep.* John D. Dingell.

Abstract: In response to a congressional request, GAO reviewed the Environmental Protection Agency's (EPA) planning and budgeting process to determine: (1) whether EPA adequately considered the needs of its regulators in planning and budgeting for research; and (2) the extent to which EPA and outside experts reviewed EPA research programs.

Findings/Conclusions: GAO found that: (1) EPA used a three-tiered, 19-step process for planning and budgeting research activities; (2) the first tier identified and documented key issues for determining the EPA research programs for the next 5 years; (3) the second tier defined resources and outputs required for specific scientific issues; and (4) the third tier defined program office research needs for the next year. GAO also found that: (1) EPA designed its planning and budgeting process to incorporate EPA regulators' needs; (2) the process included extensive involvement from research and laboratory managers and from various program offices that will ultimately use the research; (3) EPA subjects planned, ongoing, and completed research to both internal and external review; and (4) the planning and research process and multiple review processes EPA used were not part of official EPA policy.

Recommendation To Agencies: The Administrator, EPA, should plan to incorporate its research planning, budgeting, and reviewing processes in interim guidance for the fiscal year 1990 budget cycle, in an EPA policy statement.

134947

Air Pollution: Ozone Attainment Requires Long-Term Solutions To Solve Complex Problems. RCED-88-40; B-208593. January 26, 1988. Released February 3, 1988. 50 pp. plus 5 appendices (10 pp.). *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; Sen. Quentin N. Burdick, Chairman, Senate Committee on Environment and Public Works; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-86-129BR, May 2, 1986, Accession Number 130424; RCED-85-22, January 16, 1985, Accession Number 126226; RCED-85-121, September 30, 1985, Accession Number 128483; and RCED-87-151, August 7, 1987, Accession Number 133903.

Issue Area: Environment: Adequacy of Federal and State Efforts To Regulate Toxic Air Pollutants (6805).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Senate* Committee on Environment and Public Works; Congress; *Rep.* John D. Dingell; *Sen.* Quentin N. Burdick.

Authority: Clean Air Act. Clean Air Act Amendments of 1970. Clean Air Act Amendments of 1977. Water Pollution Control Act. P.L. 100-202. S. 1894 (100th Cong.). H.R. 3054 (100th Cong.). B-221421 (1986).

Abstract: In response to a congressional request, GAO examined: (1) the progress in reducing ozone levels to comply with national air quality standards; (2) the Environmental Protection Agency's (EPA) review of the latest data on the health effects of ozone; and (3) EPA and state and local governments' efforts to address ozone problems in three areas not attaining the standard.

Findings/Conclusions: GAO found that: (1) EPA identified 317 counties or parts of the country and 31 metropolitan areas that did not meet ozone standards; (2) although 123 of the counties met the standards as of January 1, 1987, none of the 31 metropolitan areas met the standards as of August 1987; (3) although a 1986 EPA study concluded that it should set a lower standard, it revised the study, because of opposition, to more clearly define adverse ozone health effects; (4) many areas failed to meet the standards because they did not implement or enforce planned control measures or have effective control measures; (5) EPA did not use the provisions of the Clean Air Act (CAA) to carry out oversight responsibilities; (6) scientific uncertainties in ozone information, weather patterns, modeling, and determining the proper controls also contributed to unmet deadlines; and (7) although EPA has recently proposed a program that would extend the attainment deadline for some areas of nonattainment without imposing construction ban sanctions, it can not administratively extend CAA deadlines in lieu of enforcing the statutory penalties.

Recommendation To Congress: In order to build flexibility into CAA that recognizes the variety of problems areas face in attempting to reach ozone standards, and to clear up the confusion over the use of sanctions, Congress should amend CAA to establish a strategy that places nonattainment areas into different categories on the basis of their design values, emission reductions, or both, with new attainment dates for each category. Congress may wish to either establish the new attainment dates and provide criteria, or provide EPA with the authority to do so. In order to build flexibility into CAA that recognizes the variety of problems areas face in attempting to reach ozone standards, and to clear up the confusion over the use of sanctions, Congress should amend CAA to specify the conditions under which sanctions will apply, such as when an area fails to implement its plan or does not meet its attainment deadline, and the extent to which EPA has discretion in applying such sanctions.

134964

Groundwater Quality: State Activities To Guard Against Contaminants. PEMD-88-5; B-228844. February 2, 1988. 100 pp. plus 5 appendices (64 pp.). *Report* to Sen. Max S. Baucus, Chairman, Senate Committee on Environment and Public Works: Hazardous Waste and Toxic Substances Subcommittee; by Eleanor Chelimsky, Director, Program Evaluation and Methodology Division. Refer to PEMD-88-6, March 16, 1988, Accession Number 135289.

Issue Area: Program Evaluation and Methodology: Intended and Unintended Effects of Government Actions in Physical System Areas (7203); Environment: Assessing Federal and State Efforts To Prevent Groundwater Contamination (6816).

Contact: Program Evaluation and Methodology Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).
Organization Concerned: Environmental Protection Agency.
Congressional Relevance: *Senate* Committee on Environment and Public Works; Hazardous Waste and Toxic Substances Subcommittee; *Sen.* Max S. Baucus.
Authority: Safe Drinking Water Act (42 U.S.C. 300g et seq.). Resource Conservation and Recovery Act of 1976 (42 U.S.C. 6901 et seq.). Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et seq.). Clean Water Act of 1977 (33 U.S.C. 1251 et seq.). Insecticide, Fungicide and Rodenticide Act (7 U.S.C. 136 et seq.). P.L. 99-339. S. 1836 (99th Cong.). S. 20 (100th Cong.).
Abstract: In response to a congressional request, GAO reviewed state groundwater standards activities, focusing on how states: (1) established groundwater standards; (2) set groundwater standards for specific contaminants; (3) used different standards; and (4) developed and implemented their standards.
Findings/Conclusions: GAO found that: (1) 41 states have numeric or narrative groundwater standards or both, while 15 states have only narrative standards; (2) states relied on federal drinking water standards for 62 percent of their numeric standards; and (3) states with additional numeric standards covered an average of 20 contaminants beyond the 34 contaminants on the federal list. GAO also found that state standards differed because: (1) background levels of contaminants were higher in some states; (2) some old standards were not updated; and (3) some states questioned the appropriateness of certain specific federal standards. In addition, GAO found that: (1) states with advanced standard-setting procedures relied on detection of contaminants before deciding to set a standard; (2) many states were constrained by inadequate technical expertise and funding; and (3) states generally used groundwater standards to issue and monitor permits.

134988

Nuclear Waste: Information on the Reracking of the Diablo Canyon Spent Fuel Storage Pools. RCED-88-79FS; B-202377. February 8, 1988. 22 pp. plus 3 appendices (25 pp.). *Fact Sheet* to Rep. Philip R. Sharp, Chairman, House Committee on Energy and Commerce: Energy and Power Subcommittee; by Keith O. Fultz, Associate Director, Resources, Community, and Economic Development Division.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404).
Contact: Resources, Community, and Economic Development Division.
Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).
Organization Concerned: Pacific Gas and Electric Co.; Nuclear Regulatory Commission; Sierra Club: Santa Lucia Chapter; Nuclear Regulatory Commission: Atomic Safety and Licensing Board Panel.
Congressional Relevance: *House* Committee on Energy and Commerce: Energy and Power Subcommittee; *Rep.* Philip R. Sharp.
Authority: Nuclear Waste Policy Act of 1982. Atomic Energy Act of 1954. Environmental Policy Act of 1969 (National). 10 C.F.R. 2.714. 10 C.F.R. 50.92.
Abstract: In response to a congressional request, GAO provided information on the proposed plan by a utility company to replace the existing spent-fuel storage racks at the Diablo Canyon nuclear power plant.
Findings/Conclusions: GAO found that: (1) the utility company applied to the Nuclear Regulatory Commission (NRC) for a license amendment to increase by 5 times its storage pool capacity because of inadequate space; (2) NRC approved the amendment without public hearings because it determined that no significant hazard was involved; and (3) in response to a suit brought by three local interest groups, a federal court held that NRC improperly approved the amendment. GAO also found that: (1) NRC reissued the company's license amendment after it determined that the concerns raised by the interest groups were without merit; (2) the litigants requested a further delay of the reracking pending the outcome of their federal appeals; and (3) the court refused to delay the reracking process and, as of January 1988, the appeal proceedings had not been completed.

135069

Nuclear Waste: Quarterly Report on DOE's Nuclear Waste Program as of December 31, 1987. RCED-88-99FS; B-202377. February 18, 1988. 22 pp. plus 2 appendices (5 pp.). *Fact Sheet* to Sen. J. Bennett Johnston, Chairman, Senate Committee on Energy and Natural Resources; Sen. James A. McClure, Ranking Minority Member, Senate Committee on Energy and Natural Resources; by Keith O. Fultz, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-88-163BR, May 19, 1988, Accession Number 135846.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404).
Contact: Resources, Community, and Economic Development Division.
Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).
Organization Concerned: Department of Energy.
Congressional Relevance: *Senate* Committee on Energy and Natural Resources; *Sen.* James A. McClure; *Sen.* J. Bennett Johnston.
Authority: Nuclear Waste Policy Act of 1982 (P.L. 97-425). P.L. 100-203.
Abstract: GAO provided its quarterly status report on the Department of Energy's (DOE) implementation of its nuclear waste management program for the quarter ended December 31, 1987.
Findings/Conclusions: GAO found that, during the quarter: (1) an amendment to the Nuclear Waste Policy Act terminated the site-specific activities, except reclamation at the Deaf Smith and Hanford sites; (2) DOE closed out the existing financial assistance grants to the affected states and Indian tribes, but had not decided whether it should close out the Oregon grant due to its relationship to nuclear activities at the Hanford site; (3) DOE issued its draft of the site characterization plan and its environmental and socioeconomic monitoring plans for the Yucca Mountain site; (4) DOE planned to hold technical workshops with Nevada state and local officials to discuss the draft; (5) the Nuclear Waste Fund received about $181 million in fees and investment income, of which DOE obligated about $63 million for program activities; and (6) the Fund balance as of December 31, 1987, was about $1.6 billion.

135086

Air Pollution: Efforts To Control Ozone in Areas of Illinois, Indiana, and Wisconsin. RCED-88-46BR; B-226223. January 29, 1988.
Released February 22, 1988. 38 pp. plus 5 appendices (5 pp.). *Briefing Report* to Rep. F. James Sensenbrenner; Rep. Toby Roth; Rep. Thomas E. Petri; Rep. Gerald Kleczka; Rep. Robert W. Kastenmeier;

Rep. Steve Gunderson; Rep. Les Aspin; Sen. William Proxmire; Rep. David R. Obey; Rep. Jim Moody; Sen. Robert W. Kasten, Jr.; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-85-121, September 30, 1985, Accession Number 128483.

Issue Area: Environment: Other Issue Area Work (6891).
Contact: Resources, Community, and Economic Development Division.
Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).
Organization Concerned: Environmental Protection Agency; Illinois; Indiana; Wisconsin.
Congressional Relevance: *Rep.* F. James Sensenbrenner; *Rep.* Toby Roth; *Rep.* Thomas E. Petri; *Rep.* David R. Obey; *Rep.* Jim Moody; *Rep.* Gerald Kleczka; *Rep.* Robert W. Kastenmeier; *Rep.* Steve Gunderson; *Rep.* Les Aspin; *Sen.* William Proxmire; *Sen.* Robert W. Kasten, Jr. .
Authority: Clean Air Act. Clean Air Act Amendments of 1977. 52 Fed. Reg. 24036. P.L. 100-202. Connecticut Fund for the Environment v. Environmental Protection Agency, 459 U.S. 1035 (1982). Citizens for a Better Environment v. Costle, 610 F. Supp. 106 (N.D. Ill. 1985).
Abstract: In response to a congressional request, GAO evaluated Environmental Protection Agency (EPA) and state efforts to control hydrocarbon emissions in southeastern Wisconsin, northeastern Illinois, and northwestern Indiana, to determine: (1) whether Illinois and Indiana are contributing to Wisconsin's ozone problems; (2) why the two states have not obtained EPA approval of their ozone control plans; (3) why EPA failed to develop plans for the two states; (4) whether the EPA process for determining air quality violations across state lines is useful for ozone; (5) whether EPA uniformly implements construction bans nationwide; and (6) whether factories within the three states emit significant amounts of hydrocarbons.
Findings/Conclusions: GAO found that: (1) because of the complexity of ozone formation, EPA officials and the states were unable to determine the exact source of Wisconsin's ozone problems; (2) EPA officials and the states agreed that industrial pollution from Chicago and northwestern Indiana may have contributed to the ozone problems in two Wisconsin counties; (3) Illinois and Indiana disagreed with Wisconsin on the effects of their emissions on Wisconsin's ozone level; and (4) EPA believes that industrial emissions from Wisconsin could also be significantly polluting its air. GAO also found that: (1) EPA did not fully approve the Indiana and Illinois ozone control plans because they failed to implement federal requirements for vehicle inspection and maintenance programs; (2) both states passed legislation implementing the measures to reduce the levels of industrial pollutions affecting the ozone layer; (3) EPA proposed to ban the construction or modification of factories that would produce large amounts of ozone until it fully approved the states' ozone plans; and (4) Congress recently enacted legislation prohibiting EPA from imposing sanctions in ozone and carbon monoxide nonattainment areas until August 1988.

135212

Air Pollution: EPA's Efforts To Develop a New Model for Regulating Utility Emissions. RCED-88-57; B-229746. January 22, 1988.

Released March 7, 1988. 6 pp. plus 6 appendices (19 pp.). *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-86-94, April 22, 1986, Accession Number 130222; and RCED-88-192, August 24, 1988, Accession Number 136892.

Issue Area: Environment: Other Issue Area Work (6891).
Contact: Resources, Community, and Economic Development Division.
Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).
Organization Concerned: Environmental Protection Agency.
Congressional Relevance: *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Rep.* John D. Dingell.
Authority: Federal Grant and Cooperative Agreement Act of 1977.
Abstract: In response to a congressional request, GAO reported on the Environmental Protection Agency's (EPA) procurement of the Advanced Utility Simulation Model, an air quality model, specifically: (1) when and how it will be complete and fully operational; (2) why EPA used a cooperative agreement rather than a procurement contract; (3) why EPA did not require the delivery of an operational model and whether it had any recourse, given the contractor's failure to deliver; and (4) whether contracts for computer models include an enforceable obligation to deliver.
Findings/Conclusions: GAO found that: (1) EPA estimated that completion of the model will occur in fiscal year 1989 and will cost $5.2 million; (2) EPA stated that it used a cooperative agreement because of the broad national use of the model; and (3) although EPA did not address its failure to require delivery of an operational model, it did acknowledge that its cooperative agreement was not well suited to obtaining such a model. GAO also found that in: (1) nine cases where EPA used contracts to obtain computer models, there were enforceable delivery clauses and clauses precluding proprietary restrictions; and (2) four cases, EPA used interagency agreements that did not require the delivery of a model and potential proprietary problems have occurred.
Recommendation To Agencies: The Administrator, EPA, should designate an appropriate official to complete the guidelines on use of contracts, cooperative agreements, and interagency agreements and ensure that these guidelines are published expeditiously. The revision should clearly articulate that a procurement contract is to be used when a delivery of an operational model is expected.

135246

[Hazardous Waste Management at Federal Facilities]. T-RCED-88-24. March 10, 1988. 14 pp. *Testimony* before the House Committee on Energy and Commerce: Transportation, Tourism, and Hazardous Materials Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-86-192, September 8, 1986, Accession Number 131121; RCED-88-44, December 17, 1987, Accession Number 134840; NSIAD-87-88BR, May 21, 1987, Accession Number 133388; RCED-86-76, May 6, 1986, Accession Number 130151; NSIAD-86-60, May 19, 1986, Accession Number 129907; RCED-87-153, July 24, 1987, Accession Number 133794; NSIAD-87-45, December 15, 1986, Accession Number 132177; and RCED-88-62, December 16, 1987, Accession Number 134766.

Contact: Resources, Community, and Economic Development Division.
Organization Concerned: Department of Defense; Department of Energy; Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce: Transportation, Tourism, and Hazardous Materials Subcommittee. .

Authority: Resource Conservation and Recovery Act of 1976. Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Superfund Amendments and Reauthorization Act of 1986. Atomic Energy Act of 1954. Executive Order 12088.

Abstract: GAO discussed: (1) environmental problems at federal facilities; and (2) facilities' compliance with environmental laws. GAO found that many federal facilities: (1) contaminated groundwater and soil with hazardous and radioactive substances; (2) contaminated drinking water aquifers, posing a possible public health threat; and (3) continued to discharge hazardous materials into the environment. GAO also found that federal agencies: (1) were slow in identifying their potential hazardous waste sites, the solutions to correct them, and the costs of complying with environmental laws; (2) could not provide information on how much they spent on site identification and cleanup because their budgets did not separately identify those costs; and (3) could not predict how long it would take or how much it would cost to clean up the sites, since that would depend on the complexity of the remedies. GAO believes that agencies need to more efficiently inform Congress of their expenditures for compliance activities.

135264

Water Resources: Evaluation of Erosion Problems on Upper Missouri River. RCED-88-71BR; B-226604. March 7, 1988.

Released March 14, 1988. 23 pp. plus 3 appendices (16 pp.). *Briefing Report* to Sen. Quentin N. Burdick, Chairman, Senate Committee on Environment and Public Works; by James Duffus, III, Associate Director, Resources, Community, and Economic Development Division.

Issue Area: Natural Resources Management: Effectiveness and Efficiency of Development, Operation, and Maintenance of Federal Water Resources Projects (6917).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Water Resources (301.0).

Organization Concerned: Department of the Army: Corps of Engineers.

Congressional Relevance: *Senate* Committee on Environment and Public Works; *Sen.* Quentin N. Burdick.

Authority: Tort Claims Act. Environmental Policy Act of 1969 (National). Public Works Administration Act. Rivers and Harbors Act. Flood Control Act (33 U.S.C. 702). Flood Control Act of 1968 (P.L. 90-483). Streambank Erosion Control Evaluation and Demonstration Act of 1974. P.L. 88-253. U.S. Const. amend. V. United States v. Sponenbarger, 308 U.S. 256 (1939).

Abstract: In response to a congressional request, GAO evaluated streambank erosion problems on the Upper Missouri River, focusing on: (1) whether the Army Corps of Engineers conducted any erosion study before planning and constructing its six dams and lakes on the river; (2) the extent of erosion problems that are caused by the Corps' operations; (3) the environmental and economic impacts of erosion; and (4) the Corps' legal authority and liability related to the erosion problem.

Findings/Conclusions: GAO found that: (1) the Corps reasonably did not evaluate streambank erosion problems during the planning stages of the dams because it was not required to do so; (2) while the Corps' dams have decreased erosion, they have also eliminated offsetting soil accretion; (3) in 1987, the Corps identified 192 potential erosion control sites on the Upper Missouri and estimated that irrigation would cost $103.6 million; (4) the few environmental impact statements that the Corps prepared for Upper Missouri projects noted only minor environmental effects; (5) the cost of erosion control structures in North Dakota would greatly exceed the economic benefits; (6) the Corps has statutory authority to construct erosion control structures only when they are economically justifiable; and (7) while property owners might claim damages for bank erosion, they would have little chance of winning compensation.

135289

Groundwater Standards: States Need More Information From EPA. PEMD-88-6; B-228844. March 16, 1988. 8 pp. plus 7 appendices (35 pp.). *Report* to Sen. Max S. Baucus, Chairman, Senate Committee on Environment and Public Works: Hazardous Waste and Toxic Substances Subcommittee; by Eleanor Chelimsky, Director, Program Evaluation and Methodology Division. Refer to PEMD-88-5, February 2, 1988, Accession Number 134964.

Issue Area: Program Evaluation and Methodology: Intended and Unintended Effects of Government Actions in Physical System Areas (7203); Environment: Assessing Federal and State Efforts To Prevent Groundwater Contamination (6816).

Contact: Program Evaluation and Methodology Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *House* Committee on Government Operations; *House* Committee on Energy and Commerce; *Senate* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *Senate* Committee on Environment and Public Works; *Senate* Committee on Environment and Public Works: Hazardous Waste and Toxic Substances Subcommittee; *Sen.* Max S. Baucus.

Authority: P.L. 99-339.

Abstract: In response to a congressional request, GAO described the: (1) information in Environmental Protection Agency (EPA) documents about groundwater contaminants that is available to states for setting groundwater standards; and (2) existing drinking water standards.

Findings/Conclusions: GAO found that: (1) 41 of the 57 states and territories set their own numerical or narrative standards for groundwater contaminants, since there were no federal standards; (2) many states believed that a lack of information constrained their standard-setting efforts; (3) EPA is revising 20 of the 22 standards it issued before 1987 for individual contaminants and is reviewing 63 other contaminants for possible regulation; and (4) although there were 247 EPA documents that dealt fairly well with 83 contaminants, there was a substantial gap between what was available and what states needed to develop standards. GAO believes that, although Congress did not give EPA general authority to set groundwater standards, providing the information states need to establish their own standards would be consistent with current EPA goals and efforts.

Recommendation To Agencies: The Administrator, EPA, should establish a criteria document program for groundwater contaminants. The groundwater contaminants addressed should be those that pose the greatest risks.

135343

Hazardous Waste: Groundwater Conditions at Many Land Disposal Facilities Remain Uncertain. RCED-88-29; B-226799. February 18, 1988.

Released March 23, 1988. 47 pp. plus 1 appendix (2 pp.). *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; Rep. Thomas A. Luken, Chairman, House Committee on Energy and Commerce: Transportation, Tourism, and Hazardous Materials Subcommittee; Rep. James J. Florio; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-87-132FS, May 19, 1987, Accession Number 133254; RCED-83-241, September 21, 1983, Accession Number 122523; RCED-84-7, June 22, 1984, Accession Number 124659; and RCED-88-115, July 19, 1988, Accession Number 136383.

Issue Area: Environment: Assessing EPA's Efforts To Protect Public Health and the Environment by Controlling Hazardous Waste From Generation To Disposal (6802).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce: Transportation, Tourism, and Hazardous Materials Subcommittee; *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Rep.* James J. Florio; *Rep.* Thomas A. Luken; *Rep.* John D. Dingell.

Authority: Resource Conservation and Recovery Act of 1976. Federal Managers' Financial Integrity Act of 1982 (P.L. 97-255). Accounting and Auditing Act. EPA Order 5360.1.

Abstract: In response to a congressional request, GAO reviewed the: (1) problems the Environmental Protection Agency (EPA) and states experienced in obtaining and using hazardous waste facility groundwater monitoring data; and (2) actions EPA took to address the problems.

Findings/Conclusions: GAO found that: (1) 39 of the 50 land disposal facilities it reviewed had not achieved the groundwater monitoring goals EPA established for facility operations; (2) EPA program managers did not develop data quality objectives for groundwater monitoring until 1986; (3) after internal review, EPA set funding for the development of data quality objectives, training, and quality assurance at $270,000; (4) although a task force report recommended actions to improve the groundwater monitoring program, including the development of technical guidance, EPA has not issued any new technical requirements; and (5) EPA has established few quality control mechanisms to ensure the accuracy of the operator-provided data.

Recommendation To Agencies: The Administrator, EPA, should develop data quality objectives for the Resource Conservation and Recovery Act of 1976 (RCRA) groundwater monitoring program specifying the type, amount, and quality of data needed for regulatory decisionmaking. Once established, these objectives should be used to develop specific regulatory requirements and quality assurance/quality control mechanisms for the groundwater monitoring program. Until this system is established, the Administrator, EPA, should report the absence of an internal control system in the RCRA groundwater monitoring program as a material weakness in the agency's annual Federal Managers' Financial Integrity Act report to the President and Congress.

135367

Superfund: Cost Growth on Remedial Construction Activities. RCED-88-69; B-223489. February 24, 1988.

Released March 25, 1988. 20 pp. plus 2 appendices (4 pp.). *Report* to Rep. Thomas A. Luken, Chairman, House Committee on Energy and Commerce: Transportation, Tourism, and Hazardous Materials Subcommittee; Rep. James J. Florio; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-86-178BR, July 7, 1986, Accession Number 130673.

Issue Area: Environment: Assessing Effectiveness and Efficiency of the Use of Superfund Resources (6813).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce: Transportation, Tourism, and Hazardous Materials Subcommittee; *Rep.* James J. Florio; *Rep.* Thomas A. Luken.

Authority: Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Superfund Amendments and Reauthorization Act of 1986.

Abstract: In response to a congressional request, GAO: (1) reviewed the extent of cost growth for the Environmental Protection Agency's (EPA) cleanup activities at Superfund sites with the highest expenditures; and (2) compared the growth with that experienced in the construction industry.

Findings/Conclusions: GAO found that: (1) construction expenditures for 30 long-term cleanup activities exceeding $1 million represented $94 million, or 87 percent, of $108 million in total Superfund long-term cleanup construction costs; (2) construction costs for 9 routine activities increased an average of 5 percent over the original contracts, while the 17 nonroutine activities increased an average of 19 percent; (3) the four activities that did not fit within the routine or nonroutine categories had an average growth of 8 percent; (4) although new Superfund legislation emphasizes cleanup activities that should permanently or significantly reduce contamination, these cleanups often cost more because of the use of new technologies; and (5) as overall Superfund cost growth rises, EPA may need to analyze the causes for growth and determine whether to take actions to control it.

135424

Superfund: Overview of EPA's Contract Laboratory Program. RCED-88-109FS; B-230502. March 30, 1988. 24 pp. plus 3 appendices (4 pp.). *Fact Sheet* to Sen. Quentin N. Burdick, Chairman, Senate Committee on Environment and Public Works; Sen. Robert T. Stafford, Ranking Minority Member, Senate Committee on Environment and Public Works; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division.

Issue Area: Environment: Assessing Effectiveness and Efficiency of the Use of Superfund Resources (6813).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *Senate* Committee on Environment and Public

Works; *Sen.* Robert T. Stafford; *Sen.* Quentin N. Burdick.

Authority: Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Superfund Amendments and Reauthorization Act of 1986. F.A.R. 52.246-4.

Abstract: Pursuant to a congressional request, GAO provided information on the Environmental Protection Agency's (EPA) Contract Laboratory Program (CLP), which provides laboratory analytical support for the Superfund Program, focusing on its: (1) services and how it provides them; (2) laboratory selection process; (3) review of laboratory analytical results; and (4) assessment and management of laboratory performance.

Findings/Conclusions: GAO found that CLP provides: (1) routine laboratory analyses of soil, water, and other substances from Superfund sites to determine the presence of volatile organic and inorganic substances, and dioxin; and (2) specialized laboratory analyses of substances through subcontracts, which a management services firm arranges under its contract with EPA. GAO also found that EPA: (1) reviews laboratory results for data useability and compliance with contractual requirements; (2) uses contract compliance screening results to determine contractor payments; (3) periodically tests laboratories' technical capabilities and conducts on-site evaluations to monitor performance; and (4) will not send additional samples to laboratories with performance problems until they have corrected the problems. In addition, GAO found that CLP laboratories analyzed: (1) about 22,000 samples at an estimated cost of $7.6 million from fiscal years 1980 through 1982; and (2) analyzed 92,000 samples at an estimated cost of $37.4 million in 1987.

135455

[Environmental, Safety, and Health Oversight of the Department of Energy's Operations]. T-RCED-88-30. March 31, 1988. 10 pp. plus 1 attachment (2 pp.). *Testimony* before the House Committee on Science, Space, and Technology: Natural Resources, Agriculture, Research and Environment Subcommittee; by Keith O. Fultz, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to EMD-81-108, August 4, 1981, Accession Number 115979; RCED-84-50, November 30, 1983, Accession Number 123131; RCED-88-62, December 16, 1987, Accession Number 134766; RCED-86-175, June 16, 1986, Accession Number 130260; RCED-86-192, September 8, 1986, Accession Number 131121; RCED-86-90, March 21, 1986, Accession Number 130087; T-RCED-87-4, March 23, 1987, Accession Number 132384; T-RCED-87-5, March 12, 1987, Accession Number 132383; T-RCED-88-6, October 22, 1987, Accession Number 134218; and T-RCED-87-12, March 25, 1987, Accession Number 132484.

Contact: Resources, Community, and Economic Development Division.

Organization Concerned: Department of Energy.

Congressional Relevance: *House* Committee on Science, Space, and Technology: Natural Resources, Agriculture, Research and Environment Subcommittee. .

Authority: Resource Conservation and Recovery Act of 1976. Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Clean Water Act of 1977. Executive Order 12088. S. 1085 (100th Cong.).

Abstract: GAO discussed the adequacy of the Department of Energy's (DOE) efforts to strengthen its environmental, safety, and health oversight of its nuclear defense complex. GAO noted that, to improve internal oversight, DOE: (1) established an advisory committee on nuclear facility safety; (2) increased funding to address environmental and safety problems and strengthen its internal oversight program; and (3) is developing plans which identify safety problems and proposed resolutions. GAO also noted that DOE: (1) has serious, long-standing budgeting and accounting problems with its environmental cleanup funds; (2) has not yet published plans identifying its environmental and safety problems or their potential resolution; and (3) lacks sufficient independent oversight. GAO believes that: (1) DOE should restructure its budget and accounting for environmental cleanup funds to easily identify funds, demonstrate compliance, and provide internal controls; and (2) Congress should consider legislating an outside, independent organization to monitor DOE.

135463

Hazardous Waste: Problems and Cleanup Efforts at an FAA Facility in Oklahoma City. RCED-88-113FS; B-230449. March 3, 1988.

Released April 4, 1988. 10 pp. plus 1 appendix (1 p.). *Fact Sheet* to Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by David L. Jones, Regional Manager, Field Operations Division: Regional Office (Kansas City).

Issue Area: Environment: Assessing EPA's Efforts To Protect Public Health and the Environment by Controlling Hazardous Waste From Generation To Disposal (6802).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Federal Aviation Administration: Mike Monroney Aeronautical Center, Oklahoma Center, OK; Oklahoma: Water Resources Board; Oklahoma City, OK: Water Department.

Congressional Relevance: *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *Rep.* Michael L. Synar.

Authority: Water Pollution Control Act Amendments of 1972 (Federal) (33 U.S.C. 1251 et seq.). Resource Conservation and Recovery Act of 1976. Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

Abstract: In response to a congressional request, GAO provided information on the: (1) nature and extent of hazardous waste problems at the Federal Aviation Administration's Mike Monroney Aeronautical Center; and (2) actions the Center took to clean up contamination.

Findings/Conclusions: GAO found that: (1) state and local regulatory agencies cited the Center several times between 1984 and 1987 for various hazardous waste violations, including toxic substances discharges, leaking fuel storage tanks, an abandoned radioactive materials burial site, and improper documentation of waste shipments; (2) the Center installed a pretreatment system and spill containment structures to prevent hazardous discharges into sewer systems; (3) the center began to remove and replace the fuel tanks and to train its personnel in complying with waste-handling requirements; (4) the Center developed a 5-year plan to protect the environment and clean up any contamination resulting from its operations; (5) the Center reported two sites to the Environmental Protection Agency as candidates for the Superfund Program; and (6) cognizant regulatory officials believed that adequate funding and proper implementation of the plan

would permanently solve the Center's contamination problems.

135516

Indoor Radon: Limited Federal Response To Reduce Contamination in Housing. RCED-88-103; B-223233. April 6, 1988.

Released April 11, 1988. 54 pp. plus 5 appendices (8 pp.). *Report* to Sen. Frank R. Lautenberg; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-86-170, June 30, 1986, Accession Number 130304.

Issue Area: Housing and Community Development: Other Issue Area Work (6791).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency; Department of Housing and Urban Development; Farmers Home Administration; Veterans Administration; National Park Service; Department of the Interior.

Congressional Relevance: Congress; *Sen.* Frank R. Lautenberg.

Authority: Superfund Amendments and Reauthorization Act of 1986. Clean Air Act. United States Housing Act of 1937. Housing Act of 1949. Housing and Community Development Amendments of 1978. Tort Claims Act. P.L. 92-314.

Abstract: In response to a congressional request, GAO identified: (1) the status of Environmental Protection Agency (EPA) efforts to detect radon and develop methods to reduce radon contamination; (2) actions that the Department of Housing and Urban Development (HUD), the Farmers Home Administration (FmHA), the Veterans Administration (VA), and the National Park Service (NPS), have taken to respond to potential radon hazards; and (3) the potential for federal government liability resulting from indoor radon hazards in federally insured or assisted housing.

Findings/Conclusions: GAO found that EPA: (1) is responsible for identifying and developing techniques to mitigate indoor radon problems; (2) plans a national assessment of existing housing for completion in 1991; (3) also plans to ask major firms to submit their radon test results to it for analysis; and (4) mitigation work on 80 of the 600 houses it had scheduled to test resulted in 70 of the houses showing significant radon reductions. GAO also found that: (1) although EPA estimates that 12 percent of the almost 85 million houses in the United States may have radon levels requiring corrective action, HUD has yet to delineate a specific policy or course of action; (2) HUD requires notification of applicants for HUD-insured mortgages of the potential for high radon levels in only three areas; (3) HUD had no requirement or policy for incorporating radon reduction techniques in its new construction projects; (4) FmHA and VA officials are unaware of any radon problems in the housing they finance or insure; (5) FmHA is developing an indoor air pollution policy to include radon, but VA has no policy for its housing, since it considers radon a state and local government issue; (6) NPS has tested nearly 3,000 of its permanent housing units and administrative buildings and plans to perform mitigation work on 352 of its buildings with elevated radon levels; and (7) the courts will not require the government to ensure that the houses it sells or insures are free of hazardous levels of radon.

Recommendation To Congress: If Congress wants HUD to assume a more active role in responding to elevated radon levels in housing, it may wish to consider outlining expected HUD indoor radon responsibilities. In addition, Congress may wish to specify what activities should be conducted by HUD. Such activities could include, for example, providing prospective mortgage insurance applicants with general radon information through a disclosure notice; sending a notice to all or selected public and Indian housing authorities of the possibility of indoor radon hazards and testing procedures; selling properties only after it has reduced elevated radon levels or attached an addendum to the sales contract advising the purchasers that a radon hazard is present; incorporating and evaluating the effectiveness of radon mitigation techniques in new construction; and reporting to EPA on the effectiveness of any radon mitigation techniques used in HUD-assisted housing. FmHA and VA have no specific statutory mandate to address indoor radon hazards. If Congress decides to outline indoor radon responsibilities for HUD, it may wish to consider the same action for FmHA and VA.

Recommendation To Agencies: The Administrator, EPA, should provide for timely consolidation and analysis of private firms' test results on indoor radon measurements. The Secretary of Housing and Urban Development and the Administrator, EPA, should define their respective responsibilities and planned actions in response to their shared legislative mandate. The Secretary of the Interior and the Administrator, EPA, should amend their interagency agreement to require that NPS information on the effectiveness of indoor radon mitigation techniques be provided to EPA for its use and consolidation with other mitigation data.

135599

Federal Land Management: An Assessment of Hardrock Mining Damage. RCED-88-123BR; B-222092. April 19, 1988. 20 pp. plus 3 appendices (8 pp.). *Briefing Report* to Rep. Nick J. Rahall, II, Chairman, House Committee on Interior and Insular Affairs: Mining and Natural Resources Subcommittee; by James Duffus, III, Associate Director, Resources, Community, and Economic Development Division.

Issue Area: Natural Resources Management: Effectiveness of Policies and Procedures for Determining Federal Land Ownership Patterns (6912); Natural Resources Management: Other Issue Area Work (6991).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Conservation and Land Management (302.0).

Organization Concerned: Bureau of Land Management; Forest Service; Bureau of Reclamation.

Congressional Relevance: *House* Committee on Interior and Insular Affairs: Mining and Natural Resources Subcommittee; *Rep.* Nick J. Rahall, II.

Authority: Mining Resources Act (30 U.S.C. 22 et seq.). Surface Mining Control and Reclamation Act of 1977.

Abstract: Pursuant to a congressional request, GAO provided information regarding: (1) unreclaimed federal land resulting from hardrock mining operations in 11 western states; (2) federal and state expenditures to reclaim hardrock mine sites; and (3) state requirements regarding the reclamation of such sites.

Findings/Conclusions: GAO found that, of an estimated 424,049 acres of unreclaimed federal land in the 11 states: (1) 281,581 acres involved abandoned, suspended, or unauthorized mining operations and would cost about $284 million for reclamation; (2) 142,648 acres were current mining operations requiring reclamation; (3) 162,911 acres required surface reshaping or recontouring for reclamation; and (4) 157,322 acres required reseeding for

reclamation. GAO also found that: (1) Colorado, Montana, New Mexico, Utah, and Wyoming spent about $2.9 million from the Abandoned Mine Land Reclamation Fund and from mine operators' fines and fees to reclaim damaged federal land, while the other six states spent no funds; (2) the Bureau of Land Management (BLM) and the Forest Service have spent $363,523 since 1978 to reclaim abandoned hardrock mine sites on federal land; (3) eight states had reclamation requirements regarding mining operations application, site inspection, and financial guarantees; (4) Arizona, Nevada, and New Mexico did not have reclamation requirements, but had laws allowing state regulation of mining operations as they affected water and air quality and hazardous waste; and (5) BLM and the Forest Service generally had agreements regarding agency responsibilities with most of the eight states with reclamation requirements.

135620

Nuclear Power Safety: International Measures in Response to Chernobyl Accident. NSIAD-88-131BR; B-230418. April 8, 1988. 4 pp. plus 5 appendices (31 pp.). *Briefing Report* to Sen. John H. Glenn, Chairman, Senate Committee on Governmental Affairs; Sen. Thad Cochran; by Allan I. Mendelowitz, Senior Associate Director, National Security and International Affairs Division.

Issue Area: Energy: Other Issue Area Work (6491).

Contact: National Security and International Affairs Division.

Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).

Organization Concerned: International Atomic Energy Agency.

Congressional Relevance: *Senate* Committee on Governmental Affairs: Energy, Nuclear Proliferation and Government Processes Subcommittee; *Senate* Committee on Governmental Affairs; *Sen.* Thad Cochran; *Sen.* John H. Glenn.

Authority: Statute of the International Atomic Energy Agency, Sept. 24, 1956, Multilateral, T.I.A.S. No. 3873.

Abstract: In response to a congressional request, GAO examined the International Atomic Energy Agency's (IAEA) potential for an expanded nuclear safety role, specifically its: (1) undertaking greater responsibility for inspecting nuclear power plant reactors; and (2) setting up an international mechanism for rapid response to mitigate the consequences of a nuclear accident.

Findings/Conclusions: GAO found that: (1) following the Chernobyl accident, IAEA enacted two international agreements to enhance cooperation in providing information and emergency assistance following a nuclear accident; (2) some countries believe that the agreements do not sufficiently obligate countries to report nuclear accidents promptly; (3) because IAEA can only undertake activities that its member states approve, it is limited to giving technical advice on radiological safety and facilitating member cooperation; (4) member states have provided additional funding for IAEA to increase the number of its safety reviews in countries with nuclear power programs; and (5) many members believe that a mandatory standards and verification regime would infringe on national sovereignty and would be expensive, impractical, and of questionable benefit.

135666

Nuclear Health And Safety: Summary of Problem Areas Within the DOE Nuclear Complex. RCED-88-130; B-222195. March 28, 1988.

Released April 28, 1988. 6 pp. plus 2 appendices (2 pp.). *Report* to Rep. Ron Wyden, Chairman, House Committee on Small Business: Regulation and Business Opportunities Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-86-175, June 16, 1986, Accession Number 130260; EMD-81-108, August 4, 1981, Accession Number 115979; RCED-86-90, March 21, 1986, Accession Number 130087; RCED-86-192, September 8, 1986, Accession Number 131121; RCED-87-30, November 4, 1986, Accession Number 131661; RCED-88-62, December 16, 1987, Accession Number 134766; T-RCED-87-4, March 12, 1987, Accession Number 132384; and T-RCED-87-32, June 16, 1987, Accession Number 133223.

Issue Area: Energy: Other Issue Area Work (6491).

Contact: Resources, Community, and Economic Development Division.

Budget Function: National Defense: Atomic Energy Defense Activities (053.0).

Organization Concerned: Department of Energy: Hanford Power Station.

Congressional Relevance: *House* Committee on Small Business: Regulation and Business Opportunities Subcommittee; *Rep.* Ron Wyden.

Authority: Clean Water Act of 1977. Resource Conservation and Recovery Act of 1976. Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

Abstract: Pursuant to a congressional request, GAO reported on major environmental and safety problems at the Department of Energy's (DOE) Hanford Power Station.

Findings/Conclusions: GAO found that DOE has not adequately resolved several previously identified, major problems at the Hanford Power Station, including: (1) incomplete or unapproved safety reviews; (2) inadequate transuranic waste disposal; (3) groundwater contamination; (4) noncompliance with the Clean Water Act of 1977, the Resource Conservation and Recovery Act of 1976, and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980; (5) an ineffective groundwater monitoring system; and (6) deteriorating facility conditions. GAO believes that DOE needs: (1) independent oversight of its nuclear activities; and (2) well-conceived, comprehensive plans to address its present problems and future needs.

135703

Toxic Substances: PCB Enforcement in Kansas City Region Substantiates Need for Further Program Improvements. RCED-88-72; B-203051. February 26, 1988.

Released May 3, 1988. 28 pp. plus 2 appendices (9 pp.). *Report* to Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-87-127, May 20, 1987, Accession Number 133577; CED-81-1, October 28, 1980, Accession Number 113650; and CED-82-21, December 30, 1981, Accession Number 117205.

Issue Area: Environment: Assessing Whether EPA's Toxic Substances Control Program Is Protecting the Public (6815).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency; Environmental Protection Agency: Region VII, Kansas City, MO.

Congressional Relevance: *House* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *House* Committee on Energy and

Commerce; *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *Senate* Committee on Appropriations: HUD-Independent Agencies Subcommittee; *Senate* Committee on Environment and Public Works; *Rep.* Michael L. Synar.

Authority: Toxic Substances Control Act. H.R. 3070 (100th Cong.).

Abstract: In response to a congressional request, GAO: (1) reviewed the Environmental Protection Agency's (EPA) Kansas City regional office's oversight of polychlorinated biphenyls (PCB) storage and disposal companies; and (2) identified improvements needed in the EPA nationwide PCB enforcement program.

Findings/Conclusions: GAO found that: (1) EPA has not directed its regional offices to assign special priority to the inspection of the 130 or more companies that handle PCB; (2) the Kansas City regional office failed to inspect all vacated and nonoperating PCB sites for contamination; and (3) the regional office's processing time for official enforcement actions against violators averaged 9.5 months in 1985 and 1986.

Recommendation To Agencies: The Administrator, EPA, should establish nationwide inspection guidance for PCB companies. Such guidance should include: (1) requirements for annual comprehensive inspections of every PCB disposal and intermediate company for compliance with all PCB regulations and permit conditions; (2) inspection of facilities once PCB operations cease; and (3) procedures that ensure correction of PCB regulatory deficiencies as soon after inspection as possible.

135706

Surface Mining: Cost and Availability of Reclamation Bonds.

PEMD-88-17; B-229961. April 8, 1988.

Released May 3, 1988. 49 pp. plus 3 appendices (12 pp.). *Report* to Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by Eleanor Chelimsky, Director, Program Evaluation and Methodology Division. Refer to GGD-87-67, July 13, 1987, Accession Number 133519.

Issue Area: Program Evaluation and Methodology: Intended and Unintended Effects of Government Actions in Physical System Areas (7203).

Contact: Program Evaluation and Methodology Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Department of the Interior; Department of the Interior: Office of Surface Mining Reclamation and Enforcement.

Congressional Relevance: *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *Rep.* Michael L. Synar.

Authority: Surface Mining Control and Reclamation Act of 1977 (P.L. 95-87).

Abstract: In response to a congressional request, GAO assessed the availability and cost of surety reclamation bonds for surface coal mine operators in four states to determine the reasonableness of rate-setting procedures.

Findings/Conclusions: GAO found that: (1) since 1984, mine operators have had difficulty in obtaining reclamation bonds because of a decrease in the number of companies underwriting the bonds; (2) some underwriting companies required as much as 100 percent of the bond's face value as collateral; (3) the use of non-surety bonds in three of the states it reviewed increased from 6 percent in 1984 to 15 percent in 1986; (4) no new company entered the reclamation bond market between 1984 and 1986 in three of the states; and (5) the coal market's economic condition and the extended-liability-period requirements created uncertainties in the surety industry. GAO also found that: (1) since July 1985, seven surety underwriters have become insolvent, affecting about 400 operators and more than $50 million in bonds; (2) 70 percent of the outstanding bonds were replaced either by other surety bonds or by some collateral mechanism; (3) while the large mine operators were able to obtain replacement bonds for 75 percent of their bonds' value, smaller operators obtained replacements for only 10 percent of their affected bonds' values; and (4) surety bonds have historically proven to be the most frequently used financial assurance mechanism in all the states it reviewed. GAO believes that a market may exist for other companies offering similar services.

Recommendation To Agencies: The Secretary of the Interior should direct the Office of Surface Mining Reclamation and Enforcement to explore ways to develop a bond market in which more bond sources are available to responsible coal mine operators and regulators are more confident that reclamation will be timely and successful. This should be done by bringing together all relevant parties, including surety representatives, coal mine operators (particularly smaller operators), environmental groups; and state officials. Among the matters that should be discussed are whether: (1) the liability period for reclamation bonds could be shortened without negatively affecting the environment; (2) state bond pools could be developed in additional states as an alternative bonding mechanism; and (3) innovations in underwriting reclamation bonds could be introduced without increasing the risk of bond forfeitures.

135708

Airport Noise: FAA's Enforcement of Noise Rules at National Airport.

RCED-88-117; B-230734. April 15, 1988.

Released May 3, 1988. 9 pp. plus 1 appendix (1 p.). *Report* to Sen. Paul S. Sarbanes; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division.

Issue Area: Transportation: Adequate Justification and Management of NAS Plan Procurements (6604).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Transportation: Air Transportation (402.0).

Organization Concerned: Federal Aviation Administration; Federal Aviation Administration: Washington National Airport; Department of Transportation; Metropolitan Washington Airports Authority.

Congressional Relevance: *Sen.* Paul S. Sarbanes.

Authority: Environmental Policy Act of 1969 (National) (42 U.S.C. 4321 et seq.). Aviation Act (49 U.S.C. 1301 et seq.). Noise Control Act of 1972 (42 U.S.C. 4901 et seq.). Aviation Safety and Noise Abatement Act of 1979 (49 U.S.C. 2101 et seq.). 14 C.F.R. 159.40. 14 C.F.R. 93.

Abstract: In response to a congressional request, GAO reviewed the Federal Aviation Administration's (FAA) monitoring and enforcement of aircraft noise rules at Washington National Airport.

Findings/Conclusions: GAO found that: (1) between January 1982 and June 1987, FAA monitored all flights between 10 P.M. and 7 A.M. for compliance with the nighttime rule and imposed penalties for violations; (2) FAA exempted noncompliant operations which it determined were beyond operator control; (3) during the past 6 years, flights during peak traffic hours have exceeded high-density rule limits by up to 13 percent; (4) since its monitoring equipment broke down in 1985, FAA has

relied on voluntary operator compliance with the airport's noise abatement procedures; and (5) it was unable to determine the number of violations or the rate at which FAA imposed penalties, since FAA did not maintain adequate records. GAO noted that the Metropolitan Washington Airports Authority budgeted funds to purchase monitoring equipment as part of its responsibility for noise abatement.
Recommendation To Agencies: The Secretary of Transportation should direct the Administrator, FAA, to: (1) monitor all--or a systematic, generalizable sample of--operations at high-density airports, including National Airport, for compliance with the high-density rule; and (2) maintain a system of records of the violations identified and its disposition of them in a form that will enable FAA to evaluate its overall monitoring and enforcement effort.

135709

Toxic Substances: EPA Has Made Limited Progress in Identifying PCB Users. RCED-88-127; B-203051. April 15, 1988.

Released May 3, 1988. 9 pp. plus 1 appendix (1 p.). *Report* to Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division. Refer to CED-82-21, December 30, 1981, Accession Number 117205; and RCED-87-127, May 20, 1987, Accession Number 133577.

Issue Area: Environment: Assessing Whether EPA's Toxic Substances Control Program Is Protecting the Public (6815).
Contact: Resources, Community, and Economic Development Division.
Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).
Organization Concerned: Environmental Protection Agency.
Congressional Relevance: *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *Rep.* Michael L. Synar.
Authority: Toxic Substances Control Act.
Abstract: Pursuant to a congressional request, GAO examined the Environmental Protection Agency's (EPA) efforts to identify and select facilities which handle, use, or dispose of polychlorinated biphenyls (PCB).
Findings/Conclusions: GAO found that EPA: (1) believes that, of an estimated 700,000 to 750,000 PCB facilities, 30 facilities are disposal companies, over 100 are handlers, and the rest are users; (2) identifies potential PCB facilities by determining the kinds of facilities and activities that use equipment containing PCB; (3) headquarters provides only limited information to assist regional offices in developing lists of potential PCB facilities for inspection; (4) regional offices rely on public directories to select facilities for PCB compliance inspection; and (5) subsequently inspects a large number of non-PCB facilities. GAO also found that EPA identified priority industries for allocation of its inspection resources and plans to: (1) focus its inspections on PCB disposers and handlers, since they handle the largest amounts of PCB; (2) propose a regulation requiring PCB facilities to report their activities and use an identification number for tracking purposes; (3) identify potential PCB users and handlers from the records of three major PCB incinerators; and (4) identify the types of PCB facilities which present the greatest health risks and concentrate its inspection resources in the most important areas.

135770

Hazardous Waste: Future Availability of and Need for Treatment Capacity Are Uncertain. RCED-88-95; B-230384. April 11, 1988.

Released May 12, 1988. 40 pp. plus 1 appendix (1 p.). *Report* to Rep. Thomas A. Luken, Chairman, House Committee on Energy and Commerce: Transportation, Tourism, and Hazardous Materials Subcommittee; Rep. James J. Florio; by Hugh J. Wessinger, Senior Associate Director, Resources, Community, and Economic Development Division.

Issue Area: Environment: Assessing EPA's Efforts To Protect Public Health and the Environment by Controlling Hazardous Waste From Generation To Disposal (6802).
Contact: Resources, Community, and Economic Development Division.
Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).
Organization Concerned: Environmental Protection Agency.
Congressional Relevance: *House* Committee on Energy and Commerce: Transportation, Tourism, and Hazardous Materials Subcommittee; *Rep.* James J. Florio; *Rep.* Thomas A. Luken.
Authority: Resource Conservation and Recovery Act of 1976. Hazardous and Solid Waste Amendments of 1984. Clean Water Act of 1977. Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Clean Air Act. Safe Drinking Water Act.
Abstract: In response to a congressional request, GAO provided information on the barriers facing the development of treatment facilities as alternatives to land disposal of hazardous wastes.
Findings/Conclusions: GAO found that: (1) companies were reluctant to build treatment facilities because the Environmental Protection Agency (EPA) has not established treatment standards; (2) perceived local community opposition to hazardous waste treatment facilities was a significant barrier to the development of new facilities; and (3) the cost and the length of time to apply for a permit deterred new development. GAO also found that: (1) in order to remove some of these barriers, EPA has proposed regulatory changes to allow permit holders to increase their treatment capacity levels by about 25 percent without undergoing any rigorous review; and (2) it would be premature to consider extending congressional deadlines before EPA sets its treatment standards.

135809

[FAA's Implementation of the Expanded East Coast Plan]. T-RCED-88-39. May 16, 1988. 11 pp. *Testimony* before the New Jersey: Noise Control Council; by Mary R. Hamilton, Regional Manager, Field Operations Division: Regional Office (New York).

Contact: Resources, Community, and Economic Development Division.
Organization Concerned: New Jersey: Noise Control Council; Federal Aviation Administration; Port Authority of New York and New Jersey.
Abstract: GAO discussed the Federal Aviation Administration's (FAA) implementation of its Expanded East Coast Plan (EECP), which revised air traffic control routes and procedures to reduce delays in the three major airports in the New York metropolitan area.
GAO found that: (1) although phase 1 of EECP, which created new air routes and revised others, significantly reduced flight delays, it increased aircraft noise over some northern and central New Jersey residents' homes; (2) because of other significant operating changes, EECP was not necessarily the sole reason for the reduction in delays at the airports; (3) the complaints focused on increased aircraft noises, increased numbers of flights, lower altitudes, and

late night overflights; (4) an FAA study showed 144 flights passed within 2.5 nautical miles of one community at between 5,000 and 14,000 feet, at an average noise level which was substantially below federal guidelines; (5) the New Jersey Port Authority's noise survey contractor plans to use citizen complaint data, which could prove inadequate; and (6) FAA exempted EECP from an environmental assessment, since the proposed changes would take place 3,000 feet or more above ground, and it did not anticipate the noise or controversy. GAO believes that FAA should: (1) prepare an environmental assessment; and (2) do similar assessments before making major air route changes in other areas.

135812

[Fighting Groundwater Contamination: State Activities to Date and the Need for More Information From EPA]. T-PEMD-88-7 . May 17, 1988. 39 pp. *Testimony* before the Senate Committee on Environment and Public Works: Water Resources, Transportation, and Infrastructure Subcommittee; by Eleanor Chelimsky, Director, Program Evaluation and Methodology Division.

Contact: Program Evaluation and Methodology Division.
Organization Concerned: Environmental Protection Agency.
Congressional Relevance: *Senate* Committee on Environment and Public Works: Water Resources, Transportation, and Infrastructure Subcommittee; *Sen.* Max S. Baucus.
Authority: Clean Water Act of 1977.
Abstract: GAO discussed states' efforts to protect groundwater resources and the Environmental Protection Agency's (EPA) efforts to help states establish technical standards for groundwater protection. GAO questioned 50 states and 7 territories and found that: (1) most states indicated that underground storage tanks were a significant source of water contamination; (2) 22 of 57 respondents had groundwater protection plans, while 33 had not developed sufficient groundwater standards; (3) few respondents had numeric standards specifying quantitative levels of allowable contaminants, while 38 respondents had narrative standards; and (4) states and territories with numeric standards relied primarily on federal drinking water standards because they lacked procedures for establishing their own standards. GAO also found that EPA: (1) had inadequate information on contaminants and did not provide any information specific to groundwater contaminants; and (2) awarded about $14 million in grants to states in fiscal years 1985 and 1986 to assist them in designing and implementing groundwater protection programs. GAO believes that EPA should establish a criteria document program specifically for groundwater contaminants.

135823

[Limited Federal Response To Reduce Radon Contamination in Housing]. T-RCED-88-43. May 18, 1988. 7 pp. *Testimony* before the Senate Committee on Environment and Public Works: Superfund and Environmental Oversight Subcommittee; by John H. Luke, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-88-103, April 6, 1988, Accession Number 135516.

Contact: Resources, Community, and Economic Development Division.
Organization Concerned: Environmental Protection Agency; Veterans Administration; Department of Housing and Urban Development; Farmers Home Administration; National Park Service.
Congressional Relevance: *Senate* Committee on Environment and Public Works: Superfund and Environmental Oversight Subcommittee.
Authority: Superfund Amendments and Reauthorization Act of 1986. Housing and Community Development Amendments of 1978.
Abstract: GAO discussed federal agencies' efforts to deal with radon contamination in housing. GAO noted that: (1) the Environmental Protection Agency's (EPA) radon activities include a legislatively mandated national radon assessment, which an EPA advisory committee's concerns has delayed; (2) EPA provides assistance to states in identifying high-risk areas; (3) the Department of Housing and Urban Development (HUD) provides radon disclosure notices to certain mortgage applicants, but its overall response to radon issues has been limited and sporadic; (4) HUD has not developed a comprehensive radon policy because it believes that it has no direct statutory mandate to deal with radon issues, except for a required cooperative effort with EPA to identify radon assessment methods; (5) while neither the Veterans Administration (VA) nor the Farmers' Home Administration (FmHA) have radon policies, FmHA is developing an indoor air pollution policy that will include radon; (6) VA believes that radon should be a state and local government issue; (7) the National Park Service has tested a number of its buildings and plans to perform radon mitigation work on about 350 buildings; and (8) legal issues concerning government liability for radon contamination have yet to be resolved.

135846

Nuclear Waste: Quarterly Report on DOE's Nuclear Waste Program as of March 31, 1988. RCED-88-163BR; B-202377. May 19, 1988. 15 pp. plus 2 appendices (2 pp.). *Briefing Report* to Sen. J. Bennett Johnston, Chairman, Senate Committee on Energy and Natural Resources; Sen. James A. McClure, Ranking Minority Member, Senate Committee on Energy and Natural Resources; by Dwayne E. Weigel, (for Keith O. Fultz, Senior Associate Director), Resources, Community, and Economic Development Division. Refer to RCED-88-99FS, February 18, 1988, Accession Number 135069.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404).
Contact: Resources, Community, and Economic Development Division.
Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).
Organization Concerned: Department of Energy; Nuclear Regulatory Commission.
Congressional Relevance: *Senate* Committee on Energy and Natural Resources; *Sen.* James A. McClure; *Sen.* J. Bennett Johnston.
Authority: Nuclear Waste Policy Act of 1982. P.L. 100-203.
Abstract: GAO provided its quarterly status report on the Department of Energy's (DOE) implementation of its Nuclear Waste Program for the quarter ended March 31, 1988.
Findings/Conclusions: GAO found that: (1) DOE issued a draft site characterization plan for the Yucca Mountain site to the state of Nevada and the Nuclear Regulatory Commission (NRC); (2) NRC raised objections concerning alternative conceptual modeling of the site, quality assurance plans, and construction of the exploratory shaft facility; (3) DOE disagreed with the NRC viewpoint that its site characterization approach supported a preferred model; (4) DOE adjusted the program to comply with legislative requirements, including

termination of all site-specific activities, except reclamation, at the Deaf Smith and Hanford sites; (5) states and Indian tribes that received grants also phased out all but their managerial activities; (6) DOE reduced its project office staffs by about 50 percent; and (7) DOE estimated the costs for phase-out of project activities, reclamation, and completion of all activities at $53 million for the Deaf Smith site and $85 million for the Hanford site.

135918

Air Pollution: Better Internal Controls Needed To Ensure Complete Air Regulation Dockets. RCED-88-128; B-226223. April 26, 1988.

Released May 27, 1988. 8 pp. plus 2 appendices (3 pp.). *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division.

Issue Area: Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency; Office of Management and Budget; Environmental Protection Agency: Office of Air and Radiation.

Congressional Relevance: *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Rep.* John D. Dingell.

Authority: Clean Air Act (42 U.S.C. 7401 et seq.). Executive Order 12291. B-221421 (1987).

Abstract: Pursuant to a congressional request, GAO examined the policy and legal issues concerning the Environmental Protection Agency's (EPA) practice of reviewing proposed regulations concurrently with the Office of Management and Budget (OMB), focusing on the Office of Air and Radiation's (OAR) proposed regulations under the Clean Air Act.

Findings/Conclusions: GAO found that OAR: (1) has routinely and legally used concurrent review since early 1985 to help expedite the rulemaking process; (2) frequently sent proposed regulations to OMB before it internally resolved all issues associated with the regulations; (3) use of concurrent review did not affect public knowledge regarding the source of regulatory changes, but the extent and thoroughness of its documentation in the docket could; (4) discontinued use of concurrent review in January 1988 except for regulations under legislative or judicial deadlines; (5) did not comply with requirements regarding the inclusion of draft regulations in dockets; (6) did not issue written procedures to define these responsibilities or routinely inspect dockets to ensure compliance with the requirement; and (7) improved internal control procedures regarding docket contents by issuing written guidance and documentation requirements, providing project officer training, and conducting annual docket inspections.

Recommendation To Agencies: To improve OAR overall internal controls for managing its dockets and complying with the requirements of section 307 of the Clean Air Act, the Administrator, EPA, should direct that the OAR headquarters office, at the time it forwards an air regulation for publication, verify that copies of all draft regulations sent to OMB, as well as the other required materials, are in the docket. As part of this effort, EPA could also review the dockets maintained to support rulemaking in other EPA programs to ensure that they comply with their respective documentation requirements.

136027

Rangeland Management: More Emphasis Needed on Declining and Overstocked Grazing Allotments. RCED-88-80; B-204997. June 10, 1988.

Released June 10, 1988. 52 pp. plus 4 appendices (18 pp.). *Report* to Rep. Morris K. Udall, Chairman, House Committee on Interior and Insular Affairs; Rep. Bruce F. Vento, Chairman, House Committee on Interior and Insular Affairs: National Parks and Public Lands Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to CED-77-88, July 5, 1977, Accession Number 102457; CED-80-82, July 16, 1980, Accession Number 112911; RCED-83-23, October 14, 1982, Accession Number 119847; and T-RCED-88-58, August 2, 1988, Accession Number 136459.

Issue Area: Natural Resources Management: Effectiveness of Programs Designed To Promote and Regulate the Development, Rehabilitation, and Management of Public Rangelands (6913).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Conservation and Land Management (302.0).

Organization Concerned: Department of the Interior; Bureau of Land Management; Department of Agriculture; Forest Service.

Congressional Relevance: *House* Committee on Interior and Insular Affairs: Public Lands Subcommittee; *House* Committee on Interior and Insular Affairs: National Parks and Public Lands Subcommittee; *House* Committee on Interior and Insular Affairs; *Rep.* John F. Seiberling; *Rep.* Bruce F. Vento; *Rep.* Morris K. Udall.

Authority: Grazing Act. Forest Reserve Act (General). Multiple-Use Sustained-Yield Act of 1960. Land Policy and Management Act. Public Rangelands Improvement Act of 1978. Environmental Policy Act of 1969 (National). Forest and Rangeland Renewable Resources Planning Act of 1974.

Abstract: Pursuant to a congressional request, GAO examined the Bureau of Land Management's (BLM) and the Forest Service's range management programs to determine: (1) their progress in improving range conditions; (2) whether they based grazing levels on recent and accurate rangeland assessments; (3) whether they used range improvement funds on the most beneficial projects; (4) the adequacy of their range condition inventory and monitoring systems; and (5) the success of the Experimental Stewardship Program (ESP).

Findings/Conclusions: GAO found that: (1) BLM and the Service lacked reliable, current information on conditions and trends for much rangeland; (2) the most recent reports showed that over 50 percent of the rangelands were in either poor or fair condition and about 8 percent were in declining condition; (3) about 19 percent of the grazing allotments were overstocked and subject to further deterioration, but the agencies did not adjust authorized livestock grazing levels in 75 percent of these cases; (4) many range managers cited insufficient data as a reason for not scheduling grazing reductions; (5) livestock carrying capacity assessments were often old and outdated; (6) neither agency focused management attention or resources on declining or overstocked allotments; and (7) 66 percent of BLM and 27 percent of Service grazing allotments did not have management plans and many of the existing plans were over 10 years old.

Recommendation To Agencies: The Secretaries of Agriculture and the

Interior should direct the Chief of the Forest Service and the Director of the Bureau of Land Management to focus management priority on completing new livestock carrying capacity assessments for grazing allotments that their range managers believe are overstocked and that therefore have the greatest potential for range deterioration. The assessments, when completed, should be used to adjust permit levels accordingly. As a start, responsible range managers should be asked to identify all allotments that they believe are currently overstocked or in declining condition. The Secretaries of Agriculture and the Interior should direct the Chief of the Forest Service and the Director of the Bureau of Land Management to better focus range improvement funding on allotments with declining range conditions and on overstocked allotments where range improvements can negate or limit the need to reduce the number of permitted livestock. A first step in this process would be to establish uniform, formal criteria that give priority to funding range improvements on allotments that are either declining or overstocked. The Secretaries of Agriculture and the Interior should direct the Chief of the Forest Service and the Director of the Bureau of Land Management to: (1) identify those grazing allotments that their range managers believe are declining and overstocked; and (2) concentrate management priority on monitoring and developing current allotment management plans for these allotments. The Secretaries of Agriculture and the Interior should direct the Chief of the Forest Service and the Director of the Bureau of Land Management to not initiate any new ESP projects until it can be demonstrated that range conditions and permittee stewardship have improved under the present ESP projects. The Secretaries of Agriculture and the Interior should direct the Chief of the Forest Service and the Director of the Bureau of Land Management to ensure that range monitoring information is gathered and assessed for ESP allotments in the program.

136109

[Superfund De Minimis Settlements]. T-RCED-88-46. June 20, 1988. 14 pp. plus 2 appendices (7 pp.). *Testimony* before the House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by Richard L. Hembra, Associate Director, Resources, Community, and Economic Development Division.

Contact: Resources, Community, and Economic Development Division.

Organization Concerned: Environmental Protection Agency; Liquid Disposal, Inc.; Laskin/Poplar Oil Co.

Congressional Relevance: *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee.

Authority: Superfund Amendments and Reauthorization Act of 1986. 50 Fed. Reg. 5034.

Abstract: GAO discussed the Environmental Protection Agency's (EPA) implementation of the Superfund Amendments and Reauthorization Act of 1986 focusing on EPA de minimis settlement activities at two Superfund sites. GAO noted that the de minimis settlements involve parties that have caused a relatively small share of the pollution at the nation's worst hazardous waste sites. GAO found that EPA: (1) reached de minimis settlements at only 8 of the 799 Superfund sites nationwide; (2) did not reach settlements at the two specified sites because of a lack of reliable information on estimated cleanup costs and the large number of parties involved, and the low priority it gave to settlement; (3) failed to establish specific guidance for compliance with settlement requirements at the regional level; and (4) planned to develop a national strategy to streamline and promote de minimis settlements. GAO believes that EPA could allocate more staff resources and set specific targets for de minimis settlements, but would need to ensure that such actions would not have a detrimental effect on other Superfund activities.

136111

Nuclear Waste: DOE's Handling of Hanford Reservation Iodine Information. RCED-88-158; B-224784.2. May 25, 1988.

Released June 21, 1988. 46 pp. plus 1 appendix (1 p.). *Report* to Rep. Allen B. Swift; Rep. Ron Wyden; Sen. Mark O. Hatfield; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-87-30, November 4, 1986, Accession Number 131661.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).

Organization Concerned: Department of Energy: Hanford Power Station; Department of Energy; Nuclear Regulatory Commission.

Congressional Relevance: *Rep.* Allen B. Swift; *Rep.* Ron Wyden; *Sen.* Mark O. Hatfield.

Authority: Nuclear Waste Policy Act of 1982.

Abstract: In response to a congressional request, GAO reviewed the Department of Energy's (DOE) handling of information on detection of radioactive iodine below the surface of the Hanford nuclear reservation to determine: (1) why DOE did not release the information before August 1987; and (2) the effect the information might have had on the selection of the Hanford site as a candidate nuclear waste repository site.

Findings/Conclusions: GAO found that: (1) although DOE conducted numerous studies in the past 20 years to determine the migration of radioactive materials through groundwater, it did not coordinate the studies or complete many of the activities and publications; (2) concerns about security, public reaction, and the effect on Hanford as a potential site affected the availability of iodine information; (3) DOE did not use the information in its environmental assessment of the Hanford site, since the information was not made public; (4) at the time Congress eliminated Hanford as a candidate repository site, the issue of groundwater movement was still unresolved; (5) DOE will not conduct planned studies to confirm Hanford's suitability, since the site is no longer under consideration for a repository; and (6) the state of Washington and the Nuclear Regulatory Commission concluded that there was sufficient information to fully evaluate the issue of groundwater movement and iodine migration at Hanford.

136112

Hazardous Waste: Many Enforcement Actions Do Not Meet EPA Standards. RCED-88-140; B-226799. June 8, 1988.

Released June 21, 1988. 64 pp. plus 1 appendix (1 p.). *Report* to Rep. Thomas A. Luken, Chairman, House Committee on Energy and Commerce: Transportation, Tourism, and Hazardous Materials Subcommittee; Rep. James J. Florio; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development

Division. Refer to RCED-86-76, May 6, 1986, Accession Number 130151; RCED-88-20, November 17, 1987, Accession Number 134643; and RCED-88-115, July 19, 1988, Accession Number 136383.

Issue Area: Environment: Assessing EPA Implementation of Hazardous and Solid Waste Management Mandates (6811).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce: Transportation, Tourism, and Hazardous Materials Subcommittee; *Rep.* James J. Florio; *Rep.* Thomas A. Luken.

Authority: Resource Conservation and Recovery Act of 1976. Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Federal Managers' Financial Integrity Act of 1982. Executive Order 12088. Executive Order 12146. H.R. 3785 (100th Cong.).

Abstract: In response to a congressional request, GAO reviewed the Environmental Protection Agency's (EPA) and states' progress in implementing the EPA enforcement response policy under the Resource Conservation and Recovery Act (RCRA) focusing on: (1) the extent to which EPA and authorized states took timely and appropriate enforcement actions against high-priority violators; (2) EPA oversight of the appropriateness of state enforcement actions; (3) whether EPA criteria for enforcement action produce sufficient and uniform enforcement across EPA regions and the states; and (4) whether EPA and states followed up on enforcement actions to ensure that handlers corrected violations. Findings/Conclusions: GAO found that: (1) states met both the timeliness and appropriateness criteria in 19 of 208 high-priority cases and in 254 of 471 other cases; (2) EPA regions met the criteria in 17 of 97 high-priority cases and 23 of 60 other cases; (3) limited resources, lack of state environmental agency penalty authority, and legal problems that affected EPA enforcement authority resulted in poor performance; (4) EPA did not take enforcement action in any cases where states did not meet enforcement criteria; and (5) the criteria that the regions used for reporting their enforcement performances were inconsistent with the enforcement policy's timeliness and appropriateness measures. GAO also found that EPA actions to improve its and states' performance in meeting enforcement criteria included: (1) codifying state regulations so that EPA could enforce them; (2) proposing a rule that required states to have administrative-order and penalty authority; and (3) issuing guidance documents that outlined enforcement options against federal violators and adopted time frames for escalating unresolved disputes between EPA regions and other federal agencies. Recommendation To Agencies: To improve EPA and state performance in implementing the EPA Enforcement Response Policy, and also to ensure an equitable and consistent application of RCRA enforcement actions nationwide, the Administrator, EPA, should reinforce to the regions their responsibility to monitor state enforcement actions and to take direct enforcement action against hazardous waste handlers when states fail to do so in a timely and appropriate manner. Reinforcement of this requirement should, as a minimum, be reflected in annual headquarters RCRA program implementation guidance to the regions. The Administrator, EPA, should direct the regions to take steps to ensure that they meet the timeliness and appropriateness criteria for enforcement actions that they take in order to set an example for the states to follow in implementing the Enforcement Response Policy and hold the regions accountable for meeting these criteria. In order for EPA headquarters to closely monitor regional and state performance in meeting timely and appropriate criteria, the Administrator, EPA, should direct that the EPA Strategic Planning and Management System be revised to incorporate enforcement performance reporting requirements that are consistent with the timeliness and appropriateness criteria in the Enforcement Response Policy and hold regions accountable for meeting these criteria. The Administrator, EPA, should require authorized states to adopt penalty policies that consider the full economic benefit of noncompliance consistent with the RCRA Civil Penalty Policy. The Administrator, EPA, should clarify the Enforcement Response Policy to include time frames for states to take enforcement actions on cases referred to them from EPA regions. The Administrator, EPA, should require that the regions and states fully and clearly document their enforcement activities with specific emphasis on penalty calculations and compliance follow-up activities. The Administrator, EPA, should determine the resource needs of the enforcement program, and, if resources are insufficient, provide such information to the appropriate congressional committee for their consideration.

136148

[Views on DOE's Clean Coal Technology Program]. T-RCED-88-47. June 22, 1988. 15 pp. plus 4 attachments (5 pp.). *Testimony* before the House Committee on Energy and Commerce: Energy and Power Subcommittee; by John W. Sprague, Associate Director, Resources, Community, and Economic Development Division.

Contact: Resources, Community, and Economic Development Division.

Organization Concerned: Department of Energy; Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce: Energy and Power Subcommittee.

Authority: Clean Air Act. Energy Reorganization Act of 1974. Nonnuclear Energy Research and Development Act of 1974. H.R. 2666 (100th Cong.). H.R. 4331 (100th Cong.). S. Rept. 98-578. S. Rept. 100-165. H. Rept. 99-714.

Abstract: GAO discussed the Department of Energy's (DOE) Clean Coal Technology Program, a cost-shared demonstration program designed to encourage the commercialization of emerging clean coal technologies. GAO noted that DOE: (1) funded seven projects with $227.5 million in federal funds and $529.8 million in nonfederal funds for the program's first phase; (2) experienced problems in finalizing cooperative agreements due to sponsors' difficulties with financial arrangements and sponsors' objections to provisions regarding federal cost recovery and technical design and operational data; (3) plans to place more emphasis on sponsors' financial arrangements and emission reduction technologies in the program's second phase; and (4) disagrees with the Environmental Protection Agency regarding the most effective technologies for near-term emission reductions at existing coal-burning facilities. GAO believes that: (1) DOE will experience some problems in the program's second phase, since it has not addressed all of the first-phase problems; and (2) pending acid rain control legislation could adversely affect the commercialization and market penetration of clean coal technologies if the legislation does not carefully link emission reduction schedules with the commercial availability of such technologies.

136149

[Views on DOE's Clean Coal Technology Program]. T-RCED-88-47A. June 22, 1988. 1 p. *Testimony* before the House Committee on Energy and Commerce: Energy and Power Subcommittee; by John W. Sprague, Associate Director, Resources, Community, and Economic Development Division.

Contact: Resources, Community, and Economic Development Division.

Organization Concerned: Department of Energy; Environmental Protection Agency.

Congressional Relevance: *House* Committee on Energy and Commerce: Energy and Power Subcommittee.

Abstract: GAO summarized its discussion of the Department of Energy's (DOE) Clean Coal Technology Program. GAO noted that DOE: (1) funded seven projects with $227.5 million in federal funds and $529.8 million in nonfederal funds for the program's first phase; (2) experienced problems in finalizing cooperative agreements due to sponsors' difficulties with financial arrangements and sponsors' objections to provisions regarding federal cost recovery and proprietary data; (3) plans to place more emphasis on sponsors' financial arrangements and emission reduction technologies in the program's second phase; and (4) disagrees with the Environmental Protection Agency regarding the most effective technologies for near-term emission reductions at existing coal-burning facilities. GAO believes that: (1) DOE will experience some problems in the program's second phase, since it has not addressed all of the first-phase problems; and (2) pending acid rain control legislation could adversely affect the commercialization and market penetration of clean coal technologies if the legislation does not carefully link emission reduction schedules with the commercial availability of such technologies.

136218

Public Rangelands: Some Riparian Areas Restored but Widespread Improvement Will Be Slow. RCED-88-105; B-230548. June 30, 1988. 54 pp. plus 4 appendices (31 pp.). *Report* to Rep. Morris K. Udall, Chairman, House Committee on Interior and Insular Affairs; Rep. Bruce F. Vento, Chairman, House Committee on Interior and Insular Affairs: National Parks and Public Lands Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to T-RCED-88-58, August 2, 1988, Accession Number 136459.

Issue Area: Natural Resources Management: Effectiveness of the Set-Aside of Special Areas on Federal Lands (6914).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Conservation and Land Management (302.0).

Organization Concerned: Bureau of Land Management; Department of Agriculture; Department of the Interior; Forest Service.

Congressional Relevance: *House* Committee on Interior and Insular Affairs: National Parks and Public Lands Subcommittee; *House* Committee on Interior and Insular Affairs; *Rep.* Bruce F. Vento; *Rep.* Morris K. Udall.

Authority: Public Rangelands Improvement Act of 1978 (43 U.S.C. 1901). Land Policy and Management Act (43 U.S.C. 1712 et seq.). Forest and Rangeland Renewable Resources Planning Act of 1974 (16 U.S.C. 1604). Grazing Act (43 U.S.C. 315m).

Abstract: In response to a congressional request, GAO discussed federal efforts to restore degraded riparian areas on public rangelands and the extent of areas still needing improvement.

Findings/Conclusions: GAO reviewed 22 public rangelands in 10 western states, and found that: (1) the Bureau of Land Management (BLM) and the Forest Service successfully restored a number of degraded riparian areas through improved livestock management, which allowed vegetation to grow; (2) BLM and the Forest Service either temporarily restricted grazing in degraed areas or built fences to keep livestock away from the areas until vegetation improved; (3) although many ranchers opposed the restoration efforts, others realized the benefits to their operations; and (4) restoration of the riparian areas required specific knowledge and skills of wildlife and fisheries biologists, hydrologists, range conservationists, and soil scientists. GAO also found that, although there are still large areas that need restoration, future efforts could be hampered by: (1) shortages of skilled staff due to the agencies' budgetary restraints; (2) opposition from ranchers; and (3) a lack of cohesive management support from BLM and the Forest Service.

Recommendation To Agencies: The Secretaries of the Interior and Agriculture should direct the Director, BLM, and the Chief, U.S. Forest Service, to review the staffing support provided to riparian improvement efforts in the context of all program activities, and determine whether appropriate staffing levels are being provided. The Secretaries of the Interior and Agriculture should, as part of their annual budget submissions, report on the extent of riparian improvement that can be expected with the level of staffing they recommend. With respect to the commitment to achieve broader riparian improvement, the Secretaries of the Interior and Agriculture should direct the Director, BLM, and the Chief, U.S. Forest Service to reemphasize and reiterate the agencies' commitment. As part of this effort, the Director and the Chief should: (1) establish finite, measurable goals in terms of miles of riparian areas to be targeted for restoration; (2) annually measure and document the specific progress being made to achieve those goals; and (3) document and justify instances where restoration steps needed to achieve established goals are seriously thwarted or rejected.

136283

Surface Mining: Transferring Interior's Surface Mining Regulatory Function. RCED-88-161; B-231390. June 9, 1988.

Released July 12, 1988. 7 pp. plus 4 appendices (7 pp.). *Report* to Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by James Duffus, III, Associate Director, Resources, Community, and Economic Development Division. Refer to GGD-81-57, March 20, 1981, Accession Number 114724.

Issue Area: Natural Resources Management: OSM and State Effectiveness in Meeting Regulatory Responsibilities Under SMCRA (6910).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Conservation and Land Management (302.0).

Organization Concerned: Department of the Interior: Office of Surface Mining Reclamation and Enforcement; Environmental Protection Agency; Department of Agriculture.

Congressional Relevance: *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *Rep.* Michael L. Synar.

Authority: Surface Mining Control and Reclamation Act of 1977. H. Rept. 100-183. 5 U.S.C. 3501 et seq.

Abstract: In response to a congressional request, GAO reviewed the impacts and alternatives associated with transferring the Department of the Interior's Office of Surface Mining Reclamation and Enforcement's (OSMRE) functions to determine: (1) the cost of the transfer; (2) the time necessary to complete the transfer; (3) which agencies were most capable of carrying out and improving OSMRE functions; and (4) the source of knowledgeable and capable staff to perform OSMRE functions if they were transferred.

Findings/Conclusions: GAO found that: (1) the cost of transferring OSMRE functions would range between $2 million and $3.3 million, including $0.7 million to $0.9 million to transfer the employees and $1.3 million to $2.4 million for administrative costs; (2) retention of existing office space would lower moving costs; (3) past reorganizations indicate that, although the physical movement of employees and offices can be accomplished in a few weeks, transferring the regulatory function could disrupt and destabilize the program for 2 or more years; (4) although the surface mining regulatory function closely paralleled those in the Environmental Protection Agency, many industry representatives, environmental groups, and state mining officials suggested that the only other possible recipient agency was the Department of Agriculture; (5) most of the groups stated that OSMRE functions should not move from Interior, since transfer would not improve program performance; (6) most of the OSMRE career employees would transfer with the functions, since federal personnel laws require holding positions for transfer employees before hiring other employees to fill the positions; and (7) interest groups expressed dissatisfaction with management-level staff and preferred management changes.

136284

Biotechnology: Managing the Risks of Field Testing Genetically Engineered Organisms. RCED-88-27; B-223522. June 13, 1988.

Released July 12, 1988. 66 pp. plus 7 appendices (41 pp.). *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to PEMD-87-14, September 30, 1987, Accession Number 134077; and RCED-86-187, August 8, 1986, Accession Number 130990.

Issue Area: Science and Technology Policy and Programs: Other Issue Area Work (9391).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Agriculture: Agricultural Research and Services (352.0); Natural Resources and Environment: Other Natural Resources (306.0); Health: Health Research (552.0).

Organization Concerned: Department of Agriculture; Environmental Protection Agency; Food and Drug Administration; Department of Agriculture: Animal and Plant Health Inspection Service.

Congressional Relevance: *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Rep.* John D. Dingell.

Authority: Food, Drug and Cosmetic Act. Environmental Policy Act of 1969 (National). Virus, Serum and Toxin Act. Plant Pest Act. Plant Quarantine Act. Insecticide, Fungicide, and Rodenticide Act. Toxic Substances Control Act. Public Health Service Act. 7 C.F.R. 340.1. 9 C.F.R. 101.2(w). 21 C.F.R. 600. Foundation on Economic Trends v. Johnson, 661 F. Supp. 107 (D.D.C. 1986).

Abstract: In response to a congressional request, GAO reviewed federal risk management of genetically engineered organisms intended for agricultural and health uses in the environment, focusing on Department of Agriculture (USDA), Environmental Protection Agency (EPA), and Food and Drug Administration (FDA) policies.

Findings/Conclusions: GAO found that: (1) because no laws specifically regulate genetically engineered organisms, the agencies apply existing laws based on product usage; (2) although USDA, EPA, and FDA generally used a case-by-case approach in reviewing proposed field tests, USDA and EPA exempted certain categories of organisms from regulatory review; (3) the agencies perform prerelease reviews to determine whether to allow field tests and what controls to impose; (4) the agencies' advisory groups reflect a wide range of relevant disciplines; (5) agency approvals are contingent upon specific field conditions, generally require plans to mitigate unexpected harm, and have the authority to terminate an experiment, if necessary; and (6) methods to control the dispersal and impact of microorganisms require minimizing risk while maximizing a field test usefulness.

Recommendation To Agencies: To ensure that microorganisms formed by the transfer of "well-characterized noncoding regulatory sequences" of genetic material from plant pests to nonplant pests receive review prior to release, the Secretary of Agriculture should direct the Administrator of the Animal and Plant Health Inspection Service to revoke the exemption for such organisms in regulations governing genetically engineered plant pests. To ensure effective regulatory coverage of genetically engineered microorganisms, the Administrator, EPA, should make all microorganisms covered by the Toxic Substances Control Act subject to either the premanufacture notice or "significant new use" rule regulations prescribed by section 5 of the act. To avoid overregulation of lower risk organisms that could result from this action, EPA could revise section 5 regulations to establish a multilevel review system with less stringent requirements for organisms believed to be of relatively lower risk.

136285

[Proposed Alaska Land Exchanges]. T-RCED-88-52. July 7, 1988. 5 pp. *Testimony* before the House Committee on Interior and Insular Affairs: Water and Power Resources Subcommittee; by James Duffus, III, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-88-179, September 29, 1988, Accession Number 136981.

Contact: Resources, Community, and Economic Development Division.

Organization Concerned: Department of the Interior.

Congressional Relevance: *House* Committee on Interior and Insular Affairs: Water and Power Resources Subcommittee.

Abstract: GAO discussed a proposed land exchange through which: (1) the Department of the Interior would acquire 896,000 acres of Alaska-Native-owned lands in seven Alaska wildlife refuges; and (2) six Alaska Native corporations would receive oil and gas rights on about 166,000 acres in the Arctic National Wildlife Refuge (ANWR). GAO noted that: (1) Interior had the authority to execute the exchange, although the corporations could not exercise the lands' oil and gas rights unless Congress opened ANWR for oil and gas development; (2) about 75 percent of the land Interior would acquire would provide only limited additional wildlife and habitat protection benefits; (3) Interior negotiated an exchange value of $539 million for the land it would acquire, six times the appraised fair market value; (4) the value of the oil and gas tracts that the corporations would acquire was

uncertain because of limited geologic information and uncertain economic data; and (5) Interior did not employ generally accepted methods for dealing with uncertainty in lease sales. GAO believes that it is not in the government's best interest to proceed with the land exchange.

136307

Nuclear Health and Safety: Oversight at DOE's Nuclear Facilities Can Be Strengthened. RCED-88-137; B-222195. July 8, 1988. 9 pp. plus 2 appendices (2 pp.). *Report* to Sen. John H. Glenn, Chairman, Senate Committee on Governmental Affairs; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to EMD-81-108, August 4, 1981, Accession Number 115979; RCED-84-50, November 30, 1983, Accession Number 123131; T-RCED-87-5, March 12, 1987, Accession Number 132383; T-RCED-88-53, July 13, 1988, Accession Number 136314; and T-RCED-88-61, August 23, 1988, Accession Number 136742.

Issue Area: Energy: Other Issue Area Work (6491).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Information, Policy, and Regulation (276.0).

Organization Concerned: Department of Energy; Department of Energy: Office of the Secretary of Environment, Safety, and Health.

Congressional Relevance: *Senate* Committee on Governmental Affairs; Congress; *Sen.* John H. Glenn.

Authority: Department of Energy Organization Act (42 U.S.C. 7101 et seq.). DOE Order 5480.

Abstract: In response to a congressional request, GAO examined the Department of Energy's (DOE) environment, safety, and health (ES&H) activities, including: (1) the possibility that DOE could reduce the visibility and management it currently gives to safety and health issues; (2) legislatively mandated independent oversight of DOE nuclear facilities; and (3) unclear safety standards.

Findings/Conclusions: GAO found that: (1) DOE created an Assistant Secretary for ES&H in 1985 to oversee the operations and contractors responsible for its nuclear defense facilities; (2) since the health and safety functions of the office were not legislatively mandated, DOE could relegate these issues to a level that would not provide top management attention; (3) although DOE created an advisory committee on nuclear facility safety, it did not meet GAO criteria for effective and independent oversight; and (4) since DOE did not determine what commercial safety standards were applicable to its nuclear facilities, it could not determine if its facilities were safe compared to commercial nuclear facilities.

Recommendation To Congress: Congress should amend the Department of Energy Organization Act to specifically establish the position of Assistant Secretary for ES&H to institutionalize this key component of the DOE oversight program. Congress should legislatively establish independent oversight of DOE nuclear defense facilities which will satisfy the five GAO key criteria.

Recommendation To Agencies: The Secretary of Energy should revise DOE orders to establish meaningful safety standards and implementation policies to guide continued operation of existing facilities and to use as baseline safety criteria for developing its future strategy for the defense complex. This revision should include a formal process to: (1) clearly identify the commercial standards, guides, and codes that should be applied to DOE nuclear facilities; and (2) justify when a standard is not met.

136310

Nuclear Health and Safety: Dealing With Problems in the Nuclear Defense Complex Expected to Cost Over $100 Billion. RCED-88-197BR; B-222195. July 6, 1988.

Released July 13, 1988. 22 pp. plus 1 appendix (1 p.). *Briefing Report* to Sen. John H. Glenn, Chairman, Senate Committee on Governmental Affairs; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to T-RCED-88-53, July 13, 1988, Accession Number 136314; and T-RCED-88-61, August 23, 1988, Accession Number 136742.

Issue Area: Energy: Other Issue Area Work (6491).

Contact: Resources, Community, and Economic Development Division.

Budget Function: National Defense: Atomic Energy Defense Activities (053.0).

Organization Concerned: Department of Energy.

Congressional Relevance: *Senate* Committee on Governmental Affairs; *Sen.* John H. Glenn.

Abstract: In response to a congressional request, GAO examined problem areas in the Department of Energy's (DOE) nuclear defense facilities and the estimated costs to resolve the problems.

Findings/Conclusions: GAO found that DOE will need to: (1) upgrade its existing nuclear facilities to meet defense needs and to ensure that the facilities conform to safety and environmental standards; (2) clean up most of the groundwater contamination in all its facilities, including those at inactive waste sites; (3) develop adequate groundwater monitoring procedures and quality assurance programs at several sites; and (4) dispose of high-level radioactive wastes in all of its facilities. GAO also found that recent DOE cost data indicate that it will cost from $100 billion to over $130 billion to address these problems and another $15 billion to $25 billion to cover expanded capability costs and relocation costs.

136314

[Dealing With Major Problem Areas in the Nuclear Defense Complex Expected to Cost Over $100 Billion]. T-RCED-88-53. July 13, 1988. 9 pp. plus 1 attachment (1 p.). *Testimony* before the Senate Committee on Governmental Affairs; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-88-197BR, July 6, 1988, Accession Number 136310; and RCED-88-137, July 8, 1988, Accession Number 136307.

Contact: Resources, Community, and Economic Development Division.

Organization Concerned: Department of Energy.

Congressional Relevance: *Senate* Committee on Governmental Affairs.

Abstract: GAO discussed problems with the Department of Energy's (DOE) nuclear defense complex. GAO noted that the major problem areas DOE must address include: (1) facility, equipment, and capability upgrades to meet nuclear defense needs and to ensure safe and environmentally acceptable operation; (2) environmental restoration to clean up existing contamination at DOE installations; and (3) safe radioactive waste disposal and nuclear facility decontamination. GAO also noted that: (1) a DOE report regarding its corrective actions to address environmental, safety, and health concerns primarily cited costs for normal operating needs and did not include costs for radioactive waste disposal, facility decontamination, or capability upgrades; and (2) analysis of preliminary DOE data indicated that it could cost between $100 billion and $130 billion to address the complex's problem

areas. GAO believes that DOE should: (1) obtain outside, independent oversight of its operations; and (2) develop a comprehensive strategy to address the complex's problems.

136383

Hazardous Waste: New Approach Needed to Manage the Resource Conservation and Recovery Act. RCED-88-115; B-221403. July 19, 1988. 69 pp. plus 5 appendices (21 pp.). *Report* to Congress; by Charles A. Bowsher, Comptroller General. Refer to RCED-88-140, June 8, 1988, Accession Number 136112; RCED-88-20, November 17, 1987, Accession Number 134643; RCED-88-29, February 18, 1988, Accession Number 135343; T-RCED-88-13, December 15, 1987, Accession Number 134631; RCED-88-48, December 9, 1987, Accession Number 134827; RCED-87-30, November 4, 1986, Accession Number 131661; and numerous other reports on hazardous waste.

Issue Area: Environment: Assessing EPA's Efforts To Protect Public Health and the Environment by Controlling Hazardous Waste From Generation To Disposal (6802).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency.

Congressional Relevance: Congress.

Authority: Resource Conservation and Recovery Act of 1976 (P.L. 94-580). Atomic Energy Act of 1954. Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (P.L. 96-510). Hazardous and Solid Waste Amendments of 1984 (P.L. 98-616). 41 Fed. Reg. 35050. H.R. 2517 (100th Cong.). H.R. 2452 (100th Cong.). H.R. 2516 (100th Cong.). H.R. 3784 (100th Cong.). H.R. 3782 (100th Cong.). H.R. 3785 (100th Cong.). H.R. 2800 (100th Cong.). H.R. 3094 (100th Cong.). H.R. 2599 (100th Cong.). H.R. 737 (100th Cong.). H.R. 3300 (100th Cong.). H.R. 3491 (100th Cong.). H.R. 3515 (100th Cong.). S. 1566 (100th Cong.). S. 1565 (100th Cong.). S. 1429 (100th Cong.). S. 1331 (100th Cong.).

Abstract: GAO discussed the Environmental Protection Agency's (EPA) progress in implementing Resource Conservation and Recovery Act (RCRA) provisions to determine whether EPA was: (1) identifying and regulating hazardous wastes; (2) ensuring RCRA facilities' compliance with regulatory controls; and (3) encouraging waste minimization.

Findings/Conclusions: GAO found that: (1) EPA made limited progress in identifying and regulating hazardous wastes due to its changing approaches, inadequate resources, and absence of systematic implementation procedures; (2) Congress enacted prescriptive amendments to RCRA with numerous deadlines that imposed specific controls if EPA failed to meet them; (3) EPA completed action on less than half of the 76 specific deadlines Congress imposed, although it made some progress on the others; and (4) although EPA was developing a plan to specify waste identification tasks and identify needed resources, it had no timetable for completion or implementation. GAO also found that: (1) both private and government-owned facilities failed to comply with EPA regulations in the areas of groundwater monitoring, closure and postclosure, and financial assurance requirements; (2) although EPA developed a strategy requiring 90-percent compliance by 1989, it did not hold its regions or states accountable for meeting the goal; (3) although EPA was working to determine, by the end of 1990, the need for a mandatory waste minimization program, it had no set overall quantifiable goals for waste reduction due to its lack of data; and (4) EPA has been unable to develop comprehensive and reliable data to assess hazardous waste legislation, evaluate trends in regulatory compliance and waste minimization, and develop waste management priorities.

Recommendation To Congress: Congress may wish to amend RCRA to require EPA to undertake, in consultation with Congress, such a planning and management effort. The objective would be to establish measurable goals for priority areas and a long-term strategy to achieve the goals. Congress may also wish to expand RCRA annual reporting requirements to include a report on EPA progress in attaining the established goals.

Recommendation To Agencies: To give a greater sense of direction to the RCRA program, the Administrator, EPA, should, in consultation with Congress, engage in strategic planning for priority efforts. This planning effort should include a strategy that identifies specific measurable goals, the tasks necessary to accomplish the goals, milestones, required resources, organizational responsibilities, and periodic reporting on progress in achieving the stated goals. An integral part of this strategy should include development of the data necessary to formulate and measure progress in attaining such goals. The priority efforts that make up this strategy should, at a minimum, include identifying and regulating hazardous wastes, ensuring regulatory compliance, and encouraging waste minimization.

136393

Nuclear Waste: DOE Should Base Disposal Fee Assessment on Realistic Inflation Rate. RCED-88-129; B-202377. July 22, 1988. 8 pp. plus 2 appendices (4 pp.). *Report* to John S. Herrington, Secretary, Department of Energy; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-87-121, August 31, 1987, Accession Number 133814.

Issue Area: Energy: Effectiveness and Efficiency of DOE Implementation of National Nuclear Waste Disposal Policies and Programs (6404).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Energy: Energy Supply (271.0).

Organization Concerned: Department of Energy; Department of Energy: Office of Civilian Radioactive Waste Management.

Authority: Nuclear Waste Policy Act of 1982 (42 U.S.C. 10101). P.L. 100-203. Immigration and Naturalization Service v. Chadha, 462 U.S. 919 (1983).

Abstract: GAO reviewed the Department of Energy's (DOE) annual assessment of the nuclear waste disposal program fee, focusing on DOE treatment of inflation in assessing fee adequacy.

Findings/Conclusions: GAO found that: (1) in June 1987, DOE recommended that the disposal fee remain unchanged, even though its analysis showed that, at a 4-percent inflation rate, the current fee would result in end-of-program deficits of $21 billion to $76 billion; (2) DOE should have proposed a fee increase to Congress, based on the inflation rate, to ensure that revenues would cover program costs; and (3) future program changes and reduced costs should enable DOE to begin using a realistic inflation rate in determining fee adequacy in 1988.

Recommendation To Agencies: The Secretary of Energy should use a realistic base-case inflation rate estimate in determining the waste disposal fee needed to produce sufficient revenues to recover total program costs.

136406

[GAO Views on Monitored Retrievable Storage of Nuclear Waste]. T-RCED-88-55. July 26, 1988. 19 pp. *Testimony* before the Monitored Retrievable Storage Review Commission; by Keith O. Fultz, Associate Director, Resources, Community, and Economic Development Division. Refer to RCED-85-100, September 30, 1985, Accession Number 128021; RCED-86-104FS, May 8, 1986, Accession Number 129887; RCED-86-198FS, August 15, 1986, Accession Number 130812; and RCED-87-92, June 1, 1987, Accession Number 133202.

Contact: Resources, Community, and Economic Development Division.

Organization Concerned: Department of Energy; Monitored Retrievable Storage Review Commission.

Authority: Nuclear Waste Policy Act of 1982.

Abstract: GAO discussed the Department of Energy's (DOE) proposal to construct and operate a monitored retrievable storage (MRS) facility for the permanent disposal of highly radioactive wastes. GAO found that: (1) although the Nuclear Waste Policy Act envisioned MRS for long-term storage, DOE proposed MRS for waste handling and temporary storage purposes; (2) DOE concluded that, although various alternatives to MRS could improve the system, they would not provide the benefits of MRS; (3) DOE did not analyze the effects of the alternatives or develop detailed design plans; (4) DOE stated that it would be able to develop and operate MRS facilities several years sooner than a repository and would be able to locate them close to a large number of eastern power plants; (5) DOE estimated that building and operating MRS would add about $1.5 billion to the cost of the nuclear waste management system, but did not include costs for site acquisition, fees, royalties, upgrading roads and other costs; (6) DOE did not address public utilities' need for MRS, their alternatives to MRS, or the effect on their operations without MRS; (7) amendments to the act could delay the proposed operation of MRS beyond 1998, since DOE could not begin MRS construction until selection and construction of a repository site; and (8) DOE did not demonstrate any significant advantages to preparing nuclear waste disposal at an MRS facility, rather than at a repository site, other than reduced transportation distances. GAO believes that DOE and the MRS Review Commission need to address whether the remaining advantages of MRS are worth its additional cost, particularly since it is no longer available to eliminate utilities' needs for additional on-site storage capacity.

136443

Offshore Oil and Gas: Environmental Studies Program Meets Most User Needs but Changes Needed. RCED-88-104; B-207556. June 29, 1988.

Released August 1, 1988. 34 pp. plus 6 appendices (53 pp.). *Report* to Rep. Michael L. Synar, Chairman, House Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to RCED-85-66, July 15, 1985, Accession Number 127498.

Issue Area: Natural Resources Management: Interior's Leasing and Development of Offshore Minerals Resources (6908); Environment: Other Issue Area Work (6891).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Other Natural Resources (306.0).

Organization Concerned: Department of the Interior; Department of the Interior: Minerals Management Service; National Oceanic and Atmospheric Administration.

Congressional Relevance: *House* Committee on Government Operations: Environment, Energy and Natural Resources Subcommittee; *Rep.* Michael L. Synar.

Authority: Outer Continental Oil Shelf Lands Act (P.L. 83-212). Outer Continental Shelf Lands Act Amendments of 1978 (P.L. 95-372). Endangered Species Act of 1973.

Abstract: In response to a congressional request, GAO reviewed the Department of the Interior's outer continental shelf (OCS) environmental studies program to determine: (1) whether contractors timely delivered environmental studies in relation to originally scheduled due dates and planned lease uses; (2) the level of user satisfaction with the studies and how Interior's Minerals Management Service (MMS) used them for OCS decisionmaking; and (3) whether MMS and the National Oceanic and Atmospheric Administration (NOAA) could use Alaska program resources more efficiently.

Findings/Conclusions: GAO found that: (1) although MMS and NOAA received most draft and final studies after their originally scheduled due dates, most of the studies were in time for planned lease sale uses; (2) most of the program studies users were satisfied with the studies' usefulness, timeliness, and quality, but some groups reported that they received half of the studies too late to provide input to MMS on lease sale decisions; and (3) recent declines in program funding for Alaska and in the number of studies contracts, as well as duplication of administrative functions by MMS and NOAA, reduced program efficiency.

Recommendation To Agencies: The Secretary of the Interior should direct the Director, MMS, to develop alternatives for making more efficient the Alaska environmental studies program contract award and administration functions currently carried out by both NOAA and MMS. In deciding which alternative to pursue, MMS should consider not only potential dollar savings but also other issues, such as staffing, public perception of objectivity, and continuity of scientific expertise.

136581

Environmental Protection Agency: Protecting Human Health and the Environment Through Improved Management. RCED-88-101; B-231234. August 16, 1988. 235 pp. plus 5 appendices (11 pp.). *Report* to Congress; by Charles A. Bowsher, Comptroller General. Refer to PEMD-87-14, September 30, 1987, Accession Number 134077; RCED-88-1, October 26, 1987, Accession Number 134238; CED-81-30, April 30, 1987, Accession Number 115081; RCED-85-166, September 5, 1985, Accession Number 128069; RCED-87-27, December 23, 1986, Accession Number 132009; RCED-87-170, August 28, 1987, Accession Number 134121; CED-80-106, August 22, 1980, Accession Number 113122; RCED-86-34, November 13, 1985, Accession Number 128766; and PAD-82-15, March 23, 1982, Accession Number 117921.

Issue Area: Environment: Assessing EPA's Initial Efforts To Address Problems Posed by Past Hazardous Waste Disposal Practices (6801).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0); General Government: Executive Direction and Management (802.0); Financial Management and Information Systems (998.0).

Organization Concerned: Environmental Protection Agency; Environmental Protection Agency: Region IV, Atlanta, GA; Environmental Protection Agency: Region X, Seattle, WA; Environmental Protection Agency: Office of Solid Waste and Emergency Response; Environmental Protection Agency: Office of Administration and Resources Management; Environmental Protection Agency: Office of Policy, Planning, and Evaluation; Environmental Protection Agency: Office of the Comptroller.

Congressional Relevance: Congress.

Authority: Clean Air Act. Water Pollution Control Act. Safe Drinking Water Act. Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Insecticide, Fungicide and Rodenticide Act. Resource Conservation and Recovery Act of 1976. Toxic Substances Control Act. Marine Protection, Research, and Sanctuaries Act of 1972. Uranium Mill Tailings Radiation Control Act of 1978. Environmental Policy Act of 1969 (National). Food, Drug and Cosmetic Act. Administrative Procedure Act (5 U.S.C. 551 et seq.). Water Pollution Control Act Amendments of 1972 (Federal) (86 Stat. 904). Hazardous and Solid Waste Amendments of 1984. Clean Water Act of 1977. Paperwork Reduction Act of 1980 (P.L. 96-511). Federal Managers' Financial Integrity Act of 1982. Superfund Amendments and Reauthorization Act of 1986. Executive Order 12552. OMB Circular A-130. OMB Circular A-123. OMB Circular A-127.

Abstract: GAO performed a management review of the Environmental Protection Agency (EPA) to determine how EPA can: (1) make and sustain management improvements to strengthen policy development; (2) better achieve program initiatives; (3) improve the integrity of management support systems; and (4) enhance planning for future environmental issues.

Findings/Conclusions: GAO found that EPA actions to increase managerial and operational effectiveness included: (1) managing programs and activities with emphasis on achieving measurable environmental results; (2) establishing more effective working arrangements with states; and (3) obtaining improved financial, management, and programmatic information to better set priorities, administer programs, and assess programs. GAO also found that EPA: (1) lacked clearly defined goals for managing for measurable environmental results; (2) has not ranked program priorities or made essential links between actions and desired results; (3) has made only limited progress in developing measures of environmental quality and linking them to program activities; (4) has numerous design and implementation problems and information gaps which limit its research effectiveness; (5) has achieved some success in balancing its oversight needs with states' needs for flexibility and autonomy; and (6) lacked fully developed data standards and data requirements and definitions across programs.

Recommendation To Congress: Congress should clarify how EPA and the states are to share accountability for: (1) meeting national goals and objectives; (2) achievement of environmental results, efficient use of federal funds, and compliance with federal regulations within the individual delegated state programs; and (3) the consistency of programs and activities nationwide. Congress may need to make adjustments in the environmental statutes and/or the resources provided EPA and the states to carry out their respective roles and meet congressional expectations as to program accountability.

Recommendation To Agencies: To enhance and facilitate EPA efforts to manage for measurable environmental results, the Administrator, EPA, should: (1) develop a clear and cohesive statement of the policy goal to guide all parts of the agency in moving toward managing for measurable environmental results; (2) make clear the relationships between this policy goal and other agency goals and management themes and link them clearly to the annual priority list to establish a basis for tracking their progress in the agency's planning and budgeting systems; and (3) set and communicate clear concepts on how the policy goal relates to current legislation and proposed changes and to agency efforts in addressing environmental problems that cut across several environmental media, using risk assessment and management tools, and developing and using environmental measures and indicators of progress. To better identify the most significant issues to be addressed in order to achieve an integrated, cross-media program for accomplishing measurable environmental results, the Administrator, EPA, should better utilize and build on the results of the Comparative Risk Project, Strategic Planning Initiatives, and initiatives for greater participation by regional offices and the states. This should include beginning the planning to undertake a second Comparative Risk Study in 2 or 3 years, when some of the data and analytical gaps have been filled. To better identify the most significant issues to be addressed in order to achieve an integrated, cross-media program for accomplishing measurable environmental results, the Administrator, EPA, should better utilize and build on the results of the Comparative Risk Project, Strategic Planning Initiatives, and initiatives for greater participation by regional offices and the states. This should include articulating decision rules for balancing efforts directed at human health and those aimed at preserving and maintaining the environment. To better identify the most significant issues to be addressed in order to achieve an integrated, cross-media program for accomplishing measurable environmental results, the Administrator, EPA, should better utilize and build on the results of the Comparative Risk Project, Strategic Planning Initiatives, and initiatives for greater participation by regional offices and the states. This should include undertaking risk studies in all 10 regions to build the analytical base for regional office participation in the development of the priority list and the Agency Operating Guidance. To better identify the most significant issues to be addressed in order to achieve an integrated, cross-media program for accomplishing measurable environmental results, the Administrator, EPA, should better utilize and build on the results of the Comparative Risk Project, Strategic Planning Initiatives, and initiatives for greater participation by regional offices and the states. This should include ensuring that, as priorities are refined through additional analysis, they are linked to proposals for legislative changes and reflected in budget formulation, the Agency Operating Guidance, allocation of resources to the regions, and accountability measures. To better identify the most significant issues to be addressed in order to achieve an integrated, cross-media program for accomplishing measurable environmental results, the Administrator, EPA, should better utilize and build on the results of the Comparative Risk Project, Strategic Planning Initiatives, and initiatives for greater participation by regional offices and the states. This should include using the waste system flow chart developed by the Office of Solid Waste and Emergency Response in its Strategic Planning Initiative as a technique to include more pollution sources and their pathways and receptors to permit wider consideration of cross-media transfers and possible solutions. To better identify the most significant issues to be

addressed in order to achieve an integrated, cross-media program for accomplishing measurable environmental results, the Administrator, EPA, should better utilize and build on the results of the Comparative Risk Project, Strategic Planning Initiatives, and initiatives for greater participation by regional offices and the states. This should include utilizing the experience of the Near Coastal Waters Strategic Planning Initiative in developing strategies in other program areas. Specifically, the problem definition, consideration of options, and ranking system used to classify estuaries and near coastal waters by severity of problems can be adapted to better focus attention on sites with the most environmentally significant problems. To better identify the most significant issues to be addressed in order to achieve an integrated, cross-media program for accomplishing measurable environmental results, the Administrator, EPA, should better utilize and build on the results of the Comparative Risk Project, Strategic Planning Initiatives, and initiatives for greater participation by regional offices and the states. This should include involving the regions more effectively in the development of agency priorities by having them develop and rank their own priorities and give a regional presentation at the annual planning meeting. To provide better guidance for developing resource requirements and making trade-offs during budget formulation, developing operational plans and budgets, and selecting appropriate accountability measures, the Administrator, EPA, should revise the priority list to: (1) state priorities in measurable short- and long-term statements to provide the missing link between policy guidance in the priority list, the Agency Operating Guidance, and managerial accountability; and (2) provide a way to determine relative importance by ranking the priority list. To provide an operational link between work done and results to be achieved, as indicated by measurable priority statements, the Administrator, EPA, should refine planning system accountability measures by stating measures and objectives in terms that are both operational and measurable. To provide an operational link between work done and results to be achieved, as indicated by measurable priority statements, the Administrator, EPA, should refine planning system accountability measures by including productivity goals in the measures as a way of assessing quality, timeliness, and efficiency of service delivery. To better link decisions on what areas are of greatest importance to the agency, as indicated in the priority list, with the formulation of the future-year budget, the Administrator, EPA, should make greater use of existing flexibility to shift resources to higher priority issues by consulting regularly with Congress to identify areas of flexibility under current law and gain congressional support where changes are needed. To better link decisions on what areas are of greatest importance to the agency, as indicated in the priority list, with the formulation of the future-year budget, the Administrator, EPA, should make greater use of existing flexibility to shift resources to higher priority issues by utilizing the Statutory Review Project to document existing areas of legislative flexibility, inform executives and managers, identify legislative barriers to be addressed, and prepare proposals for legislative changes required. To better link decisions on what areas are of greatest importance to the agency, as indicated in the priority list, with the formulation of the future-year budget, the Administrator, EPA, should make greater use of existing flexibility to shift resources to higher priority issues by using flexibility consistent with current and proposed legislation to shift a percentage of the total agency budget annually from issues of lower priority to those of higher priority. To better link decisions on what areas are of greatest importance to the agency, as indicated in the priority list, with the formulation of the future-year budget, the Administrator, EPA, should make greater use of existing flexibility to shift resources to higher priority issues by increasing the Administrator's options for shifting resources across media and program offices by modifying the budget guidance to ask assistant administrators to submit, with their proposed budgets, information on how they would accomplish their work within a percent range of fewer resources in lower-priority activities and how additional resources could achieve greater measurable results in higher-priority activities. To better link decisions on what areas are of greatest importance to the agency, as indicated in the priority list, with the formulation of the future-year budget, the Administrator, EPA, should make greater use of existing flexibility to shift resources to higher priority issues by refocusing the lead region approach to reflect cross-media planning and budgeting and to enhance regional participation in budgeting. To ensure that operational planning drives the development of operating budgets and to improve linkages between agency planning and budget systems so that resource allocation supports accomplishment of the Administrator's priorities, the Administrator, EPA, should correct the timing of the development of operating budgets, including the use of work-load models for allocating regional resources, so that the development of operational plans to carry out the Agency Operating Guidance precedes allocation of resources. To ensure that operational planning drives the development of operating budgets and to improve linkages between agency planning and budget systems so that resource allocation supports accomplishment of the Administrator's priorities, the Administrator, EPA, should build institutional mechanisms between the Office of Policy, Planning, and Evaluation and the Office of Administration and Resources Management by: (1) combining annual guidance for operational planning and developing operating budgets into a single document that clearly links the two; and (2) instituting joint reviews of proposed plans and budgets by the Office of Policy, Planning, and Evaluation and the Comptroller's Office to ensure that the two processes are serving their appropriate roles in supporting the priority list. To ensure that operational planning drives the development of operating budgets and to improve linkages between agency planning and budget systems so that resource allocation supports accomplishment of the Administrator's priorities, the Administrator, EPA, should correct the current lack of integration of planning and budgeting in the Resource Planning and Budgeting Manual and the Strategic Planning and Management System Reference Paper by issuing a joint, comprehensive, consistent document or correcting and more adequately reflecting both systems in separate documents on each. To more fully utilize its reprogramming authority to shift resources to priority issues during the execution phase of the management cycle and better link oversight activities regarding the achievement of planned goals, including planning system targets, and the use of resources, the Administrator, EPA, should provide guidance on available reprogramming flexibility and, through meetings and training sessions, inform program and regional office officials about the conditions for using this flexibility. To more fully utilize its reprogramming authority to shift resources to priority issues during the execution phase of the management cycle and better link

oversight activities regarding the achievement of planned goals, including planning system targets, and the use of resources, the Administrator, EPA, should revise the Resource Planning and Budgeting Manual to stress the use of reprogramming as a method of responding to agency priorities. For example, the section on reprogramming, as it applies to budget execution, needs to emphasize its use as a way to shift funds to priority list areas. To more fully utilize its reprogramming authority to shift resources to priority issues during the execution phase of the management cycle and better link oversight activities regarding the achievement of planned goals, including planning system targets, and the use of resources, the Administrator, EPA, should use the quarterly planning system reviews as a combined progress review on performance targets and review of resource utilization to identify opportunities to reprogram funds from lower to higher priorities. This could include: (1) considering issues in the priority list for the operating year, as well as for the future fiscal year, as candidates for resource shifts in quarterly reviews with national program managers and review sessions with regional offices; and (2) reviewing the extent to which various levels of management are using reprogramming to move resources from lower priority areas to higher priority issues. To revitalize and better direct EPA efforts to identify environmental measures, as a way of achieving its goal of managing for measurable environmental results, the Administrator, EPA, should adopt the framework for organizing and collecting management and environmental data and concentrate agency efforts on identifying and testing the best available measures. The process should include assigning specific responsibility for the effort and establishing time frames for completion, allocation of resources, and peer review and/or oversight. To revitalize and better direct EPA efforts to identify environmental measures, as a way of achieving its goal of managing for measurable environmental results, the Administrator, EPA, should adopt the framework for organizing and collecting management and environmental data and concentrate agency efforts on identifying and testing the best available measures. The process should include assessing the progress being made in Region 10, on the Conservation Foundation project, and the work at Corvallis Laboratory to determine how they can contribute to measurement identification and implementation. To revitalize and better direct EPA efforts to identify environmental measures, as a way of achieving its goal of managing for measurable environmental results, the Administrator, EPA, should adopt the framework for organizing and collecting management and environmental data and concentrate agency efforts on identifying and testing the best available measures. The process should include revisiting its past surveys and data collected as part of its operating and monitoring activities, as well as similar data collected by states and other federal agencies, to determine if these data might be appropriate for use in assessing program results. To revitalize and better direct EPA efforts to identify environmental measures, as a way of achieving its goal of managing for measurable environmental results, the Administrator, EPA, should adopt the framework for organizing and collecting management and environmental data and concentrate agency efforts on identifying and testing the best available measures. The process should include recognizing the vulnerability of monitoring and survey activities to budget reductions when making decisions relating to the expansion, termination, and/or reduction of these activities. A necessary step in evaluating program effectiveness is to link program activities to measures of environmental quality and to decisions on allocation and targeting of resources. The Administrator, EPA, should begin taking the steps necessary to link program and monitoring activities to environmental indicators. Efforts underway in Region 4 appear to provide a good starting point. To ensure the continued strengthening of a sound analytic base needed for assessing and managing environmental risks, the Administrator, EPA, should identify the critical research needs for implementing the initiative of managing for measurable environmental results and establish a process and/or structure to ensure that these needs are met. To ensure the continued strengthening of a sound analytic base needed for assessing and managing environmental risks, the Administrator, EPA, should assess the status of methods and activities for determining exposure, particularly human exposure, to pollutants to provide a basis for deciding the additional research needed to develop and use effective methods. To ensure the continued strengthening of a sound analytic base needed for assessing and managing environmental risks, the Administrator, EPA, should establish a long-range research planning process for addressing research needs. As part of this effort, the Administrator should evaluate the present Research Committee process of developing the agency's research agenda with a view toward determining how it can be revised to ensure a proper balance between the agency's short- and long-term research needs. To more effectively accomplish the objectives of the demonstration projects, the Administrator, EPA, should review the results of the Integrated Environmental Management Program geographic studies to identify achievements, limitations, problems, and lessons learned that are common to the projects so that the results are effectively disseminated and used to improve future geographic studies. To more effectively accomplish the objectives of the demonstration projects, the Administrator, EPA, should review the results of the Integrated Environmental Management Program geographic studies to identify changes that need to be made in the management of demonstration projects in general. To ensure that the goal and initiatives of managing for measurable environmental results are being implemented, monitored, and accomplished and to implement the previous recommendations, the Administrator, EPA, should establish an organizational focus as a way for providing the leadership to ensure the successful implementation and achievement of the initiative. A focal point could be an individual, a group, or an office designated as responsible for seeing that the necessary policies, procedures, processes, and systems are developed, implemented, monitored, and revised to ensure that progress is being made in effectively achieving the initiative. To help sustain and advance current EPA efforts to establish a more effective federal/state relationship in carrying out national environmental programs, the Administrator, EPA, should identify cases of individual state transaction review by EPA and reassess whether such procedures are essential. If the procedures are not essential or can be substituted for with other monitoring techniques, they should be eliminated. To help sustain and advance current EPA efforts to establish a more effective federal/state relationship in carrying out national environmental programs, the Administrator, EPA, should, to the extent feasible, provide multiyear, instead of the current annual, guidance to the states and work with Congress to consider providing multiyear financial assistance. To help sustain and advance current EPA efforts to establish a more effective federal/state relationship in

carrying out national environmental programs, the Administrator, EPA, should improve evaluations of state program performance, especially with regard to incorporating the measurement of environmental results. In communicating and addressing performance problems, the Administrator should stress the type and amount of improvement needed and options available to the states to take corrective action. To help sustain and advance current EPA efforts to establish a more effective federal/state relationship in carrying out national environmental programs, the Administrator, EPA, should establish specific guidelines as to when and under what circumstances EPA will begin action to take back delegated program authority. These guidelines should be communicated to both agency staff and the states for use in cases where evaluations find that state performance is poor. The Administrator, EPA, should take the lead in working with Congress and the states to reassess the current federal/state relationship and to determine whether a more comprehensive approach is needed to accomplish EPA, state, and congressional objectives/expectations for the partnership. The Administrator, EPA, should take appropriate steps to develop a long-range, mission-based plan that focuses on the actual use and value of information in achieving EPA goals. Specifically, the plan should define the framework for developing a modern information resources management infrastructure, which will: (1) establish high-level management authority for planning, directing, and implementing information resources management activities; (2) establish a data architecture that identifies the agency's data flows and relates its data assets to operational needs; and (3) further improve data and voice networks needed for the conduct of business at operational locations across the nation. In modernizing and improving EPA financial activities, the Administrator, EPA, should continue to provide the support and priority needed for financial systems developmental efforts. In modernizing and improving EPA financial activities, the Administrator, EPA, should institute an annual audit of EPA financial statements.

136620

Surface Mining: Information on the Updated Abandoned Mine Land Inventory. RCED-88-196BR; B-226046. July 22, 1988.

Released August 23, 1988. 22 pp. plus 1 appendix (1 p.). *Briefing Report* to Rep. Ralph S. Regula, Ranking Minority Member, House Committee on Appropriations: Interior Subcommittee; Rep. Sidney R. Yates, Chairman, House Committee on Appropriations: Interior Subcommittee; by James Duffus, III, Associate Director, Resources, Community, and Economic Development Division.

Issue Area: Natural Resources Management: Adequacy of Efforts To Reclaim Abandoned Mine Lands To Protect Public Health and the Environment (6911).
Contact: Resources, Community, and Economic Development Division.
Budget Function: Natural Resources and Environment: Conservation and Land Management (302.0).
Organization Concerned: Department of the Interior: Office of Surface Mining Reclamation and Enforcement.
Congressional Relevance: *House* Committee on Appropriations: Interior Subcommittee; *Rep.* Ralph S. Regula; *Rep.* Sidney R. Yates.
Authority: Surface Mining Control and Reclamation Act of 1977.
Abstract: In response to a congressional request, GAO reviewed the Office of Surface Mining Reclamation Enforcement's (OSMRE) procedures for updating the national inventory of abandoned coal mine land problem areas, focusing on the: (1) role and composition of the inventory update committee; (2) criteria OSMRE used to determine a problem area's priority for inclusion in the national inventory; and (3) procedures OSMRE used to screen problem areas to ensure that it would place only those areas that affected public health, safety, and general welfare in the inventory.
Findings/Conclusions: GAO found that: (1) OSMRE established the committee to review state-nominated problem areas for inclusion in the national inventory; (2) the committee was to identify inconsistencies existing between the OSMRE field office reviews and omissions of required data that the field offices overlooked; and (3) although four OSMRE staff members were to comprise the committee, during its 22 meetings from August 1984 to October 1987, participation ranged ranged from 3 to 6 OSMRE staff members, with 14 different staff members participating at one time or another. GAO also found that: (1) an OSMRE inventory manual outlined the criteria to determine the reclamation priority of problem areas; (2) OSMRE used the state reports to allocate the federal portion of the Abandoned Mine Reclamation Fund; (3) OSMRE included lands that presented environmental restoration problems but did not threaten public welfare in the inventory, but did not use such lands to allocate funds; and (4) OSMRE developed various quality control procedures to review state reports. In addition, GAO found that: (1) most state and OSMRE officials believed that the inventory was too inconsistent to use as a basis to allocate grants to states, since states' relative reclamation needs differed; (2) OSMRE tightened the requirements and did not reevaluate submissions approved prior to the change; and (3) states found inconsistencies in OSMRE field office reviews.

136756

Superfund Contracts: EPA Needs to Control Contractor Costs. RCED-88-182; B-231219. July 29, 1988.

Released September 13, 1988. 56 pp. plus 2 appendices (4 pp.). *Report* to Rep. John D. Dingell, Chairman, House Committee on Energy and Commerce: Oversight and Investigations Subcommittee; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division. Refer to CED-82-36, March 9, 1982, Accession Number 118044; RCED-85-12, January 4, 1985, Accession Number 126028; RCED-87-68FS, January 12, 1987, Accession Number 132154; and RCED-88-1, October 26, 1987, Accession Number 134238.

Issue Area: Environment: Assessing Effectiveness and Efficiency of the Use of Superfund Resources (6813); Civil Procurement and Property Management: Other Issue Area Work (4991).
Contact: Resources, Community, and Economic Development Division.
Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).
Organization Concerned: Environmental Protection Agency; Environmental Protection Agency: Office of Solid Waste and Emergency Response; Environmental Protection Agency: Office of Administration and Resources Management.
Congressional Relevance: *House* Committee on Energy and Commerce: Oversight and Investigations Subcommittee; *Rep.* John D. Dingell.
Authority: Federal Managers' Financial Integrity Act of 1982. Superfund Amendments and Reauthorization Act of 1986. Comprehensive Environmental Response, Compensation, and Liability Act of 1980.
Abstract: Pursuant to a congressional request, GAO reviewed contractor

performance at 43 hazardous waste sites to determine if the Environmental Protection Agency (EPA) had established adequate controls to ensure high-quality, cost-effective, and timely work under its Superfund remedial study contracts.
Findings/Conclusions: GAO found that EPA: (1) lacked adequate information to evaluate contractors' work plans and proposed costs; (2) did not adequately monitor contractors' dollar and hour budget expenditures; (3) did not always perform required contract administration duties such as reviewing contractor invoices and maintaining complete work assignment files; (4) believed that inadequate contractor performance resulted in cost increases at 22 sites, but challenged cost increases at only 4 sites; (5) believed that cost challenges were difficult and time-consuming and that the contracts required it to pay for costs the contractor incurred; (6) focused on timeliness and quality of remedial studies rather than their costs; and (7) had options for dealing with increased costs, including negotiating with the contractor to absorb costs, authorizing the increase but not a corresponding increase in the base or award fee, not authorizing the increase, terminating the contract, or disallowing the questionable cost. GAO also found that the award fee process EPA used with remedial study contractors: (1) allowed a contractor to earn the majority of an award during the first phase of the award fee process, before it completed the study and before EPA could assess its quality; and (2) contributed to overall contracting difficulties, since EPA performance evaluation criteria did not require assessment of subcontracting management.
Recommendation To Agencies: The Administrator, EPA, should affirm his overall commitment to cost control in two ways: (1) communicate the importance of balancing timeliness, quality, and costs on remedial studies by incorporating explicit language in EPA contracting and project officer guidance; and (2) require that remedial contracting and project officers and remedial project managers diligently monitor and control contractor expenditures throughout the duration of remedial study work assignments. The Administrator, EPA, should direct that the Office of Administration and Resources Management and the Office of Solid Waste and Emergency Response take the following steps to improve EPA specific oversight of remedial contractor performance and expenditures: (1) complete development of cost-range information for remedial study tasks and require remedial project managers to use this information to assess the reasonableness of the contractor cost proposals and subsequent cost increases; (2) reemphasize the need for contracting and program officers to challenge questionable contractor expenditures; and (3) reinforce existing policy in writing to employees and remedial contractors that contractors are not to incur costs above the amounts EPA has authorized in the work assignments, and require remedial project managers to monitor contractor expenditures, both dollars and hours. The Administrator, EPA, should direct that the Office of Administration and Resources Management and the Office of Solid Waste and Emergency Response take the following steps to improve EPA specific oversight of remedial contractor performance and expenditures: (1) resolve the issue of why EPA consistently exhausts contract hours, but not dollars, on the remedial contracts; and (2) require that EPA personnel comply with internal control standards, specifically that remedial project managers review contractor costs and that they establish and maintain complete and accurate work assignment records. To improve the award fee plans for the remedial contracts, the Administrator, EPA, should: (1) amend the remedial contracts award fee evaluation criteria to require a separate rating on subcontractor management; (2) amend the award fee structure to shift a greater proportion of the total award fee available from the phase I fee to phase II; and (3) determine, for each new alternative remedial contract awarded, the appropriate split between the phase I and II award fees on the basis of the contractor's performance and record. To expedite subcontracting reviews, the Administrator, EPA, should negotiate with prime contractors to establish firm time tables for implementing acceptable subcontracting systems and hold these contractors accountable for these time frames under the award fee process.

136820

Water Pollution: Efforts to Clean Up Michigan's Rouge River. RCED-88-164; B-226207. August 10, 1988. Released September 19, 1988. 9 pp. plus 9 appendices (64 pp.). *Report* to Rep. John D. Dingell; by J. Dexter Peach, Assistant Comptroller General, Resources, Community, and Economic Development Division.

Issue Area: Environment: Assessing How Water Pollution Facilities Are Reducing Pollutants From the Nation's Waters (6804).

Contact: Resources, Community, and Economic Development Division.

Budget Function: Natural Resources and Environment: Pollution Control and Abatement (304.0).

Organization Concerned: Environmental Protection Agency; Michigan: Department of Natural Resources; Environmental Protection Agency: Region V, Chicago, IL.

Congressional Relevance: *Rep.* John D. Dingell.

Authority: Water Pollution Control Act Amendments of 1972 (Federal) (33 U.S.C. 1251). Clean Water Act of 1977. P.L. 100-4. Agreement on Great Lakes Water Quality, Nov. 22, 1978, United States-Canada, T.I.A.S. No. 9257. Executive Organization Act (Michigan).

Abstract: Pursuant to a congressional request, GAO reviewed federal, state, and local efforts to clean up Michigan's Rouge River, focusing on: (1) the overall quality of the river's waters; (2) pollutant sources; (3) the status of cleanup planning efforts; and (4) costs of remedial cleanup efforts.
Findings/Conclusions: GAO found that: (1) Michigan's Department of Natural Resources (MDNR) was responsible for managing the river's cleanup; and (2) the Environmental Protection Agency (EPA) was responsible for ensuring that cleanup activities met legislative requirements. GAO also found that: (1) the river's water quality, which ranged from fair to very poor, severely impaired its uses for fishing and swimming and constituted a threat to public health; (2) discharges of pollutants from overflowing combined sewers, estimated at 473 million pounds annually, were the major pollution sources; (3) planning for the river's cleanup intensified in 1986 when MDNR made it a priority and jointly developed with EPA and local communities a plan to eliminate untreated discharges and overflows and to finance remedial measures; (4) costs to fully implement the plan were unknown, although estimates for partial implementation totalled $1.8 billion; (5) MDNR plans to more effectively use the National Pollutant Discharge Elimination System to reduce the amount of discharged pollutants and ensure permittees' compliance with permit requirements; and (6) EPA worked with MDNR to resolve problems it identified in the computerized system MDNR used to assess permit compliance.
Recommendation To Agencies: Because of the Rouge River's long history of pollution problems, its potential for public contact and use, which is the greatest of all the rivers in Michigan, the recent priority assigned to cleanup

by Michigan, and the effect of the river's water quality on international waters, the Administrator, EPA, should require its Chicago Regional Office to establish controls designed specifically to oversee MDNR implementation of corrective actions on Rouge River discharge permits. As part of these controls, EPA should perform periodic reviews of MDNR progress to correct combined sewer, stormwater, municipal, industrial, and pretreatment permit program problems and provide feedback to MDNR on its assessment of the progress made to resolve these problems. If MDNR does not make satisfactory progress, the Administrator should develop options in consultation with MDNR to address the obstacles encountered.

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