Natural Resources
Defense Council

1350 New York Ave., N.W.
Washington, DC 20005
202 783-7800
FAX 202 783-5917

ENTERED

STATEMENT OF

JAMES D. WERNER

AND

DAN W. REICHER, ESQ.

ON BEHALF OF

THE NATURAL RESOURCES DEFENSE COUNCIL

BEFORE

THE SENATE COMMITTEE ON GOVERNMENTAL AFFAIRS

REGARDING

THE DEPARTMENT OF ENERGY'S
FIVE-YEAR PLAN FOR ENVIRONMENTAL
RESTORATION AND WASTE MANAGEMENT

NOVEMBER 14, 1989

100% Recycled Paper

New York Office:
40 West 20th Street
New York, New York 10011
212 727-2700
FAX 212 727-1773

Western Office:
90 New Montgomery
San Francisco, CA 94105
415 777-0220

Natural Resources
Defense Council
212 Merchant St.
Suite 203
Honolulu, HI 96813
808 533-1075

33236

My name is Jim Werner. I am a project engineer with the Natural Resources Defense Council (NRDC). Prior to joining NRDC earlier this year I was a Senior Environmental Engineer at ICF Technology, Inc, where I served as a consultant to the Department of Energy performing hazardous waste field investigations at DOE facilities throughout the United States. I have also provided environmental consulting services to EPA, the Congressional Office of Technology Assessment, and a variety of private corporations. I have a Masters degree in Environmental Engineering from The Johns Hopkins University and have authored numerous technical and policy articles on the costs and technologies of hazardous waste cleanup.

Also testifying today is Dan W. Reicher. Dan is a senior staff attorney with the NRDC and Director of NRDC's Project on the Environmental Effects of Nuclear Weapons Production. Prior to joining NRDC, Dan was an assistant attorney general for environmental protection in the Commonwealth of Massachusetts, a law clerk to a federal district court judge, a staff member of the President's Commission on the Accident at Three Mile Island, and a legal assistant in the hazardous waste section of the U.S. Department of Justice. He is a graduate of Stanford Law School and Dartmouth College.

NRDC is a national environmental organization with over 100,000 members and contributors and a staff of over 125 lawyers, scientists, environmental specialists and support personnel at

offices in New York, Washington, San Francisco, Los Angeles, and Honolulu. NRDC pursues a broad range of environmental, energy, and defense issues. The organization has long been concerned about safety and environmental problems at Department of Energy (DOE) nuclear facilities. Over the past twelve years, the NRDC Nuclear Project has won a number of lawsuits to enforce federal environmental laws at DOE facilities including Hanford, Washington; Oak Ridge, Tennessee; and the Savannah River Plant, South Carolina.

We are pleased to have this opportunity to present our views on the Department of Energy's Five-Year Plan for Environmental Restoration and Waste Management.

I. DOE'S FIVE-YEAR CLEANUP PLAN: DESCRIPTION AND PERSPECTIVE

In March of this year, the Energy Department committed to preparing an Environmental Restoration and Waste Management Five-Year Plan ("Five-Year Plan" or "Plan") to outline how the Department intended to deal the with massive environmental problems at its nuclear facilities.[1] The long-awaited Plan, released in August, consists of a main volume of more than 400 pages, and several volumes of supporting appendices containing

---

[1] Watkins, James D., Letter to Honorable John D. Dingell, Chairman of the House Energy and Commerce Committee, March 23, 1989; and Watkins, James D., Memorandum for all Departmental Elements, Appointment of Mr. Leo Duffy, March 15, 1989.

thousands of "Activity Data Sheets".[2] The Plan has received more attention than almost any recent DOE document.

The Plan separates DOE environmental activities into three categories: (1) environmental restoration, (2) waste management, and (3) corrective activities. "Environmental restoration" involves cleanup of more than 3,000 sites where hazardous and/or radioactive waste have been dumped or leaked, and the decontamination and decommissioning of radioactively-contaminated facilities. "Waste management" includes the treatment, disposal or elimination of hazardous chemical and radioactive waste. "Corrective activities" includes upgrades of existing facilities to bring them into compliance with environmental, safety and health standards. This category does not include the day-to-day activities needed to comply with environmental, safety and health standards. Each of these activities are described in an overview section, which also briefly discusses several policy issues. Attachments are used to summarize the major environmental problems and issues at each facility or operations office. These attachments also summarize the annual funding requirement for each activity. Research and development is discussed only in a general overview section without any specific funding proposals. A separate "Five-Year Plan" is being prepared for research and development.[3]

---

[2] DOE, Environmental Restoration and Waste Management Five-Year Plan, DOE/S-0070, August 1989.

[3] Plan at 196.

The Five-Year Plan only addresses environmental problems at DOE facilities. It does not address the other half of the Department's current crisis - nuclear safety. Safety problems, along with questions about need, have been primarily responsible for the current halt in nuclear materials production in the United States. The DOE Advisory Committee on Nuclear Facility Safety ("The Ahearne Committee") has scrutinized a limited number of facilities. The Defense Nuclear Facilities Safety Board ("The Glenn Board") has only recently been formed and is restricted in the range of facilities it can investigate.

The Energy Department's Five-Year Plan is only one of a number of initiatives that the Department has undertaken in the last five years in an attempt to address its massive environmental problems. A brief review of these previous initiatives is useful to place the Five-Year Plan in context (see Table 1).

In September 1985, then Secretary Herrington announced his "3-Point Plan to Strengthen Environment, Safety and Health Programs".[4] Secretary Herrington's initiatives included a reorganization plan, the Environmental Survey program, and Technical Safety Appraisals. Secretary Herrington's reorganization consolidated the Department's environment, safety, and health oversight responsibility into a single office. The Environmental Survey program was a $60 million effort to identify

---

[4] DOE, Office of Press Secretary, "DOE News: Herrington Announces 3-Point Plant to Strengthen Environment, Safety and Health Programs", R-85-111, September 18, 1985.

TABLE 1

RECENT DEPARTMENT OF ENERGY ENVIRONMENT AND SAFETY INITIATIVES

-	September 1985	Secretary Herrington announces "3 - Point Plan to Strengthen Environment, Safety and Health Programs."
-	June 1986-May 1989	Environmental Survey Teams investigate and report on 35 DOE facilities.
-	May 1988	Secretary Herrington forms Advisory Committee on Nuclear Facility Safety ("Ahearne Committee").
-	July 1988	DOE publishes Environment, Safety and Health for the DOE Defense Complex ("Glenn Report").[1]
-	1987-1989	DOE negotiates Interagency Agreements with States and EPA.
-	December 1988	DOE releases "Prioritization Report"[2], "Needs Report"[3] and Modernization ("2010") Report.[4]
-	June 1989	Secretary Watkins announces "Ten Point Plan for Environmental Protection, Waste Management".
-	August 1989	Tiger Team investigates and reports on first of 35 facilities; Five-Year Plan released.
-	October 1989	Defense Nuclear Facilities Safety Board ("Glenn Board") sworn in.

---

[1] Department of Energy, "Environment, Safety and Health Report for the Department of Energy Defense Complex," July 1, 1988.

[2] U.S. Department of Energy, Environment, Safety and Health, Office of Envirnimental Audit, Environmental Survey Preliminary Summary Report of the Defense Production Facilities, DOE/EH-0072, dated September 1988 (actually released in December 1988).

[3] Department of Energy, "Environment, Safety, and Health Needs of the U.S. Department of Energy, Volume 1: Assessment of Needs" (DOE/EH-0079), December 1988.

[4] Department of Energy, "United States Department of Energy Nuclear Weapons Complex Modernization Report: Report to Congress by the President," December 1988 (commonly referred to as the "2010 Report").

and prioritize environmental problems at DOE facilities. The Technical Safety Appraisals assessed nuclear safety conditions at several facilities.

As a result of Secretary Herrington's 1985 initiative as well as increased Congressional and public concern, the Department released a series of major reports addressing the environmental problems of the nuclear complex:

1) Department of Energy, Environment, Safety and Health Report for the Department of Energy Defense Complex, July 1, 1988. ("Glenn Report");

2) U.S. Department of Energy, Environment, Safety and Health, Office of Environmental Audit, Environmental Survey Preliminary Summary Report of the Defense Production Facilities, DOE/EH-0072, September 1988 (actually released December 1988) ("Prioritization Report")

3) Department of Energy, Environment, Safety, and Health Needs of the U.S. Department of Energy, Volume 1: Assessment of Needs, (DOE/EH-0079), December 1988. ("Needs Report"); and

4) Department of Energy, United States Department of Energy Nuclear Weapons Complex Modernization Report: Report to Congress by the President, and Supporting Documentation - Waste Management, Environmental Restoration, and Operations Environment, Safety and Health, December 1988 ("Modernization Report" or the "2010 Report").

The Glenn Report, the Needs Report and the Modernization Report estimated that cleaning up nuclear weapons facilities and bringing them into compliance with environmental laws could cost in the neighborhood of $100 billion. The Prioritization Report identified specific environmental cleanup and compliance projects and listed them in a order of their environmental priority.

In the midst of the Herrington initiatives, Congress amended the Comprehensive Environmental Response, Compensation and Liability Act (also known as "Superfund") to include a requirement that federal facilities enter into "Interagency Agreements" (IAG) with the Environmental Protection Agency (EPA) to clean up waste sites.[5] The relationship between the Five-Year Plan and the IAGs is not clear. There are indications that some budget allocations in the Plan are driven by the IAGs. But at the same time, we understand that some draft IAGs contain provisions that would allow DOE to amend an agreement to reflect the Five-Year Plan.

Shortly after he took office, Secretary Watkins announced his "Ten-Point Plan for Environmental Restoration and Waste Management." Some important aspects of the Secretary's plan resemble Secretary Herrington's initiatives. For example, the Ten-Point Plan calls for the establishment of "Tiger Teams" to investigate 35 facilities. Secretary Herrington formed the "Environmental Survey" to investigate the same facilities. Both Secretaries also sought to elevate the importance of environment, safety and health concerns in the Department. Several additional areas were covered in the Ten-Point Plan, that were not included in the Herrington initiative, such as a modification of the contractor award fee system to reflect increased emphasis on environment, safety and health, and a commitment to improving the Department's compliance with the National Environmental Policy

---

[5] 42 U.S.C. 9620(e)(2)

Act. Also, the Tiger Teams are required to consider additional areas such as safety and compliance not covered by the Survey project.

Clearly, some useful work has been carried out under Secretaries Herrington and Watkins over the past five years. But we have three concerns. First, some duplication of efforts has occurred. For example, the Tiger Teams appear to be plowing some of the same ground as the Environmental Survey. Despite recent criticisms by the DOE Inspector General that management "cannot be assured that the...survey effort provides a sound basis for prioritizing environmental problems"[6], the $60 million project provided a useful inventory of environmental problems at DOE facilities.

Second, we are concerned about the lack of followup on the environmental initiatives. For example, "Action Plans" were prepared by the field offices in response to each of the Environmental Survey reports. But, there has been no observable followup to ensure that these Action Plans are actually carried out to correct the environmental problems identified. Moreover, the relationship between the Action Plans prepared in response to the Tiger Teams and the Action Plans developed following the Environmental Survey is not clear.

Third, in some cases the Watkins initiatives actually represents a step backwards in responsible environmental

---

[6] Layton, John C., DOE, Report on the Environmental Survey Program, DOE/IG-0268, at 6, July 1989.

management. For example, as we explain in greater detail below, the plan for reorganization of the Department is clearly a reversal of the progress made under Secretary Herrington. The Watkins reorganization appears to weaken substantially the Department's Office of Environment, Safety and Health which was strengthened in the 1985 Herrington initiatives.

Secretary Watkins' Ten-Point Plan and the Five-Year Plan generally represent progress towards a more environmentally responsible Energy Department, but it important to remember that the fundamental problems have yet to be corrected. The culture in the Department that led to today's massive environmental and safety problems will take a long time to change. Virtually all of the cleanup still remains to be carried out and there are serious questions about whether the Energy Department can perform the cleanup in an efficient and effective manner. The Energy Department still is "self-regulating" with regard to most radioactive wastes and occupational health and safety problems. All Energy Department facilities have not yet fully accepted the authority of outside regulatory agencies. In sum, the Department of Energy has taken only the first small and tentative steps in a difficult, expensive process, the success of which will not be known for many years.

II. COMMENTS ON DOE'S FIVE-YEAR PLAN

A. The Plan Fails to Acknowledge That the Increase in Proposed Environmental Spending in the Five-Year Plan Largely Reflects Accounting Procedures Rather than New Funding Commitments

The Five-Year Plan appears to provide for substantial increases in environmental restoration funding as compared with previous appropriations. For example, the Five-Year Plan lists the FY89 environmental restoration spending for the Defense Programs (DP) complex (see Table 2) as $257 million, while the actual FY89 environmental restoration appropriation for the DP complex was $159 million. However, rather than a substantial new funding commitment, the Plan actually reflects new accounting procedures that aggregate all remotely environmentally-related projects into environmental budget categories. Thus, the difference between actual FY89 appropriations and the amounts listed in the Five-Year Plan equals the funding for many ongoing projects re-categorized into environmental restoration from other, non-environmental accounts.[7] The amount of re-categorization for FY89 is more than 60% ($135 million) of the total environmental restoration budget for the DP complex detailed in the Five-Year Plan. Similarly, more than 15% ($5 million) of the FY89 environmental restoration funding for the three gaseous diffusion plants are re-categorized in the Five-Year Plan in FY89. Similar comparisons for FY89 non-defense

---

[7] DOE Controller personnel have stated that past, current and out-year budget amounts are altered whenever re-categorization occurs.

TABLE 2
COMPARISON OF FY89 FUNDING FOR
ENVIRONMENTAL RESTORATION FUNDING FOR DEFENSE PROGRAMS

DEFENSE SITE NAME	FY89 (DP)* ACTUAL	WATKINS PLAN** FY89 DP "FUNDING"
Kansas City Plant	374	5,598
Los Alamos	450	4,606
Mound Plant	4,510	10,885
Pantex Plant	410	2,200
Pinellas	100	800
Rocky Flats Plant	700	15,982
Sandia/Alb.	400	1,884
Sandia/Livermore	100	780
Fernald	9,550	19,392
INEL	23,175	28,408
SAN (incl. Lvrmr).	10,770	14,749
Nevada Test Site	1,486	1,486
Oak Ridge Nat.Lab	12,021	17,345
Oak Ridge K-25	0	15,423
Savannah River	18,518	35,269
Hanford***	28,123	47,200
Y-12	28,028	28,315
Other Sites	20,610	34,099
TOTAL	159,325	284,421

URANIUM ENRICHMENT SITE NAME	FY89* APPROPRIATION (Thousands)	WATKINS PLAN** FY89 "FUNDING" (Thousands)
Paducah	4,000	10,045
Portsmouth	9,600	12,385
Oak Ridge K-25	19,000	15,423

* U.S. Department of Energy, Office of the Controller FY90 Revised Congressional Budget Request, Energy and Water Development Appropriations, Atomic Energy Defense Activities, February 21, ("DP" = Defense Programs)

** U.S. Department of Energy, Environmental Restorat Management Five-year Plan, DOE/S-0070, August 198

environmental restoration, corrective activities, and waste management activities cannot be made, due to a lack of publicly-available site-specific appropriation data for those activities. Nonetheless, the Activity Date Sheets for those sites indicate that a similar, significant re-categorization also occurred in the Five-Year Plan.

This shift in budget categories for environmental projects reflects one of the principal objectives of the Five-Year Plan -- to consolidate environmental activities into a single line function. This consolidation and related change in accounting procedure, if implemented responsibly, is generally a positive development because it may improve DOE's environmental management budgeting. But, there a number of troubling aspects to the consolidation that DOE should explicitly address in future environmental plans.

First, nowhere in the 441 page plan is the large-scale shifting of activities described. The budget figures are presented in a format which makes the re-categorization difficult to analyze. The scale of this re-categorization becomes apparent only by transferring the budget figures to annual summary tables (see e.g., Table 2). The total spending proposals can then be compared to previous authorizations. The plan should have more explicitly acknowledged this massive shifting of activities.

Second, the projects shifted to environmental budget categories should be legitimate environmental projects, not related to maintaining or modernizing materials production

facilities. For example, replacing piping in a production facility should be categorized as an environmental project only if it is done for environmental reasons.

Third, to the extent that legitimate environmental projects are re-categorized from out-year materials production budgets, there should be a decrease in the materials production budget categories equal to the amount shifted. Congress should carefully scrutinize out-year materials production funding requests to ensure that an increase in production activities does not occur despite an overall constant materials production budget.

B. The Plan Fails to Outline an Adequate Prioritization Scheme

The Five-Year Plan fails to identify an adequate prioritization system for implementing its massive environmental restoration program. Such a prioritization system will be a crucial element in the Department's cleanup program, which is expected to cost tens of billions of dollars and require several decades to complete. Failure to establish accepted priorities for spending such vast sums could undermine the Congressional and public support needed to carry out the plan.

The Five-Year Plan outlines an interim four-tiered priority system that will be used until a National Prioritization System is established. The interim system has four levels:

Priority 1: "activities necessary to prevent near-term adverse impacts to workers, the public, or the environment...and ongoing activities which, if terminated, could result in significant program...impacts."

Priority 2: "activities required to meet the terms of agreements...between DOE and local, State and Federal agencies."

Priority 3: "activities required for compliance with external environmental regulations that were not captured by Priority 1 or 2."

Priority 4: "activities that are not required by regulation but would be desirable to do."

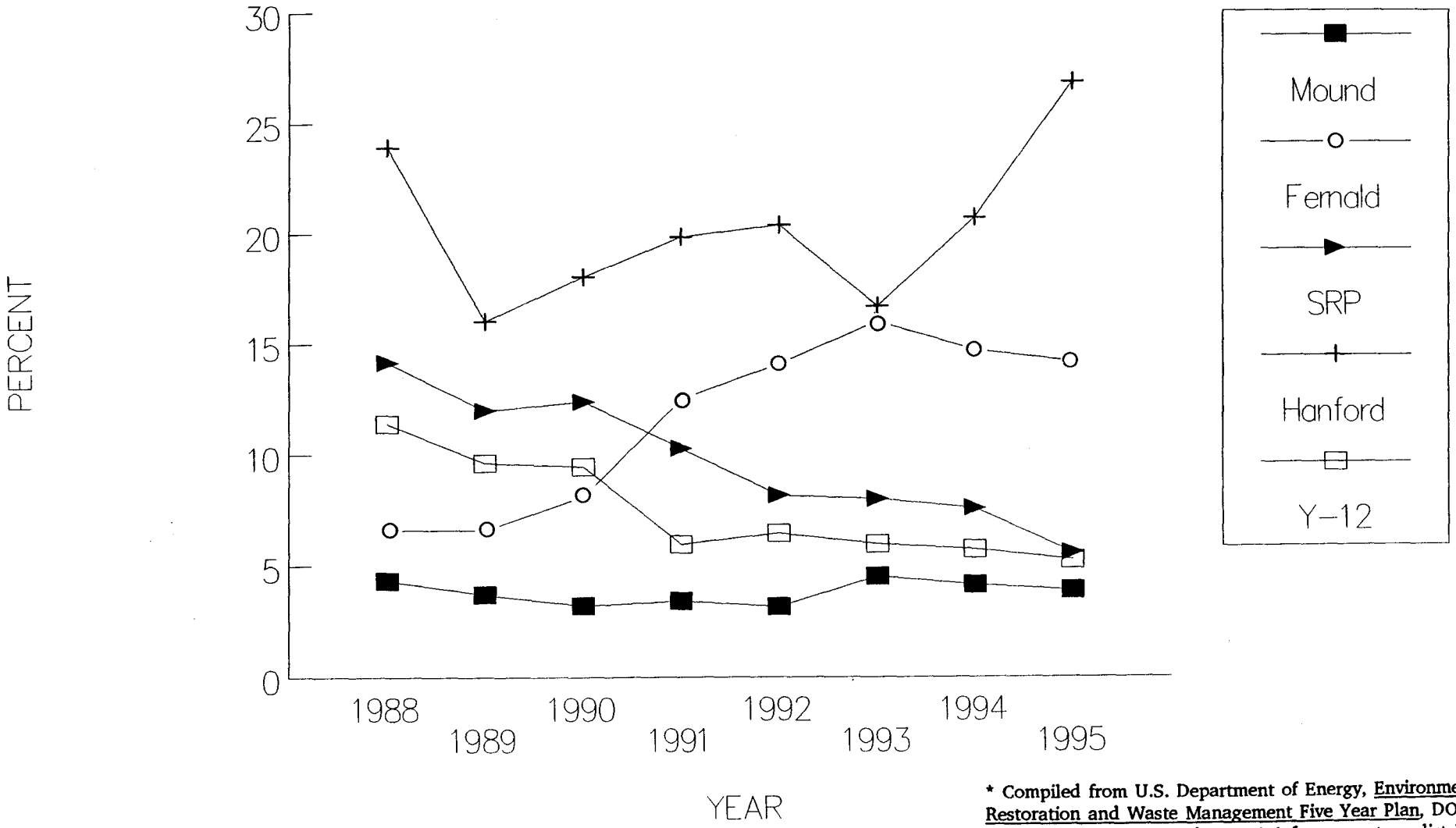
There are troubling aspects to this interim prioritization scheme. First, it is not at all clear that this is actually the system being used. We believe that environmental priorities set in the Five-Year Plan more likely reflect a mix of factors, especially the success individual states have had in securing funding commitments from DOE. As Figures 1 and 2 show, sites in states that have been active in obtaining cleanup agreements (e.g., Hanford and Ohio) are slated to receive a greater relative share of funding than states that have not been as successful in obtaining cleanup agreements (e.g., South Carolina and Tennessee).

Second, the interim priority system places "ongoing activities" (Priority 1) ahead of "meet[ing]...legal commitments"

FIGURE 1

DOE ENVIRONMENTAL RESTORATION

Percent Funding Distribution

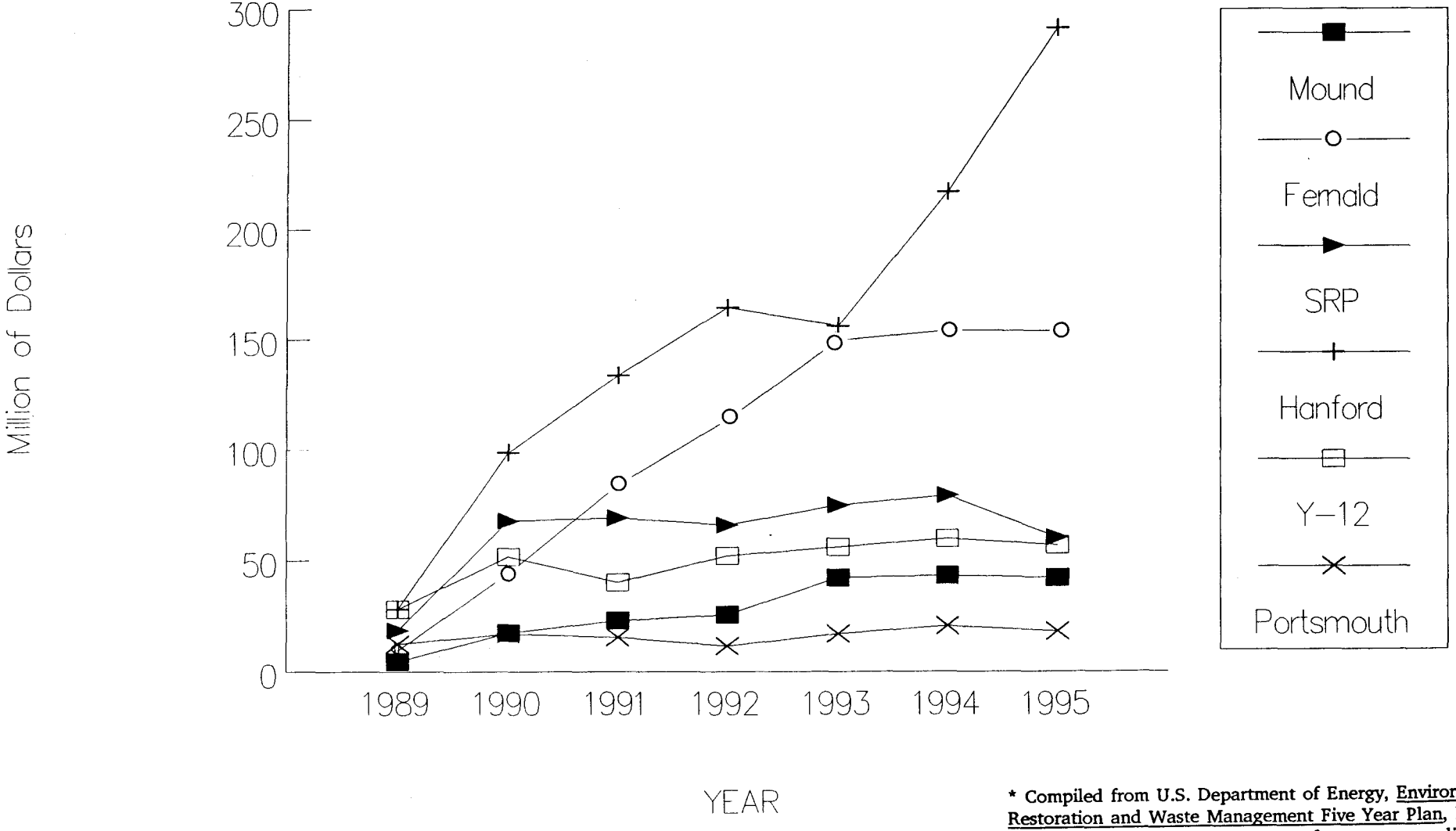


* Compiled from U.S. Department of Energy, Environmental Restoration and Waste Management Five Year Plan, DOE/S-0070, August 1989. (See Attachment A-1 for percentage distribution.)

FIGURE 2

ENVIRONMENTAL RESTORATION FUNDING

Energy Department DP Facilities



* Compiled from U.S. Department of Energy, Environmental Restoration and Waste Management Five Year Plan, DOE/S-0070, August 1989. (See Attachment A-2 for percentage distribution.)

(Priority 2).[8] We believe that this order is inappropriate. Ongoing activities to support a program should not automatically be given a higher priority than meeting environmental requirements. The Department's current crisis can be partly attributed to its historic failure to emphasize environmental compliance.

Third, we are concerned that compliance with agreements between DOE and federal, state, and local agencies is given priority over "compliance with external environmental regulations...."[9] This scheme would, for example, subordinate legally-mandated emissions standards designed to protect human health to the requirements of whatever compliance agreement DOE makes no matter how limited or inadequate. Hence, funding for meeting a schedule necessary to obtain a hazardous waste permit for a weapons production facility could have a higher priority than complying with standards for radionuclide emissions, depending upon the provisions of a particular compliance agreement.

To replace this interim priority system, the Plan proposes to develop and initiate a "National Prioritization System." The prioritization schemes previously developed by the Department are seriously flawed, and substantial work will be required to

---

[8] Plan at 14.

[9] Plan at 15.

develop a workable system.[10] We outlined many of the problems of the Department's prioritization system in previous testimony before Subcommittees of the Senate and House Armed Services Committees[11] and in a meeting of the Energy Department's External Review Group. These problems include the unrealistic complexity and data intensiveness of the model, its failure to consider multiple contaminants, and an inappropriate combination of carcinogenic and noncarcinogenic effects. In addition to these technical flaws, the Energy Department's prioritization model was developed by DOE without any opportunity for public comment. In February of this year, the DOE Deputy Assistant Secretary for Environment, stated that the decision to develop a prioritization system without public input was done against his recommendation and that he would recommend that the Department submit the prioritization system to public comment.[12]

---

[10] The risk-based prioritization system (MEPAS) and budget allocation system (POS) developed by DOE are described in the September 1988 "Prioritization Report" (supra note 4), and "Priority System for Department of Energy Defense Complex Environmental Restoration Program, A Report Prepared for the House Armed Service Committee," U.S. Department of Energy (August 1988), at page 17.

[11] See generally, Reicher, Dan W. and James D. Werner, Testimony before the House Armed Service Committee Procurement and Military Nuclear Systems Subcommittee, February 24, 1989; Reicher, Dan W. and James D. Werner, Testimony before the Senate Armed Services Committee Strategic Forces and Nuclear Deterrence Subcommittee, April 7, 1989; Werner, James D. and James Beard, Testimony before the House Armed Services Committee Defense Nuclear Facilities Panel, May 9, 1989.

[12] Statement of Raymond Berube before the House Armed Services Committee Subcommittee on Procurement and Military Nuclear Systems, February 24, 1989.

In its Five-Year Plan, the Department has committed to developing a new system. The system under development, however, appears to be merely a revision of the flawed model developed earlier. We believe that this previously developed model cannot be salvaged through revisions and should be scrapped. We also believe the Department must face up to the very fundamental question of whether it is even appropriate for DOE to develop its own priority-setting system. The Energy Department is not unique among federal agencies in its need to establish waste cleanup priorities. There are more than a thousand federal facilities where waste cleanup is required, including 177 Air Force sites, 266 Department of Interior sites, and 41 Department of Agriculture sites.[13] In addition to the Energy Department, EPA and the Department of Defense are developing their own prioritization systems. This proliferation of waste cleanup prioritization systems may not be a wise expenditure of taxpayers' money and may result in inconsistent cleanup programs. It is natural for government agencies to want their own priority systems, but it may not make sense for each agency to develop a separate system. We believe that any prioritization system used to help allocate the cleanup funds of a federal agency should be coordinated by EPA, and be part of an effort involving other federal agencies.

---

[13] Planning Research Corporation, Federal Agency Hazardous Waste Compliance Docket: Federal Facilities by Agency, October 10, 1988, see 53 Fed.Reg. 46364; November 16, 1988.

We strongly urge the various federal agencies to meet and address this issue of multiple prioritization systems. A conference of federal agencies to address prioritization issues was proposed by EPA for late Summer 1989 but has not yet occurred.[14] There are at least two possible outcomes of such a conference. One possibility is that a uniform national prioritization system is developed that all federal agencies use to set cleanup priorities across the federal government. Another outcome might be that a set of common principles is developed that each agency uses in developing its own prioritization system in order to better assure consistency among federal agencies.

If the Energy Department is to address these fundamental issues, it is very unlikely that an acceptable system can be developed by March 1990 as the Department currently plans.[15] The National Research Council Board on Radioactive Waste Management commented:

> [T]he [Five-Year] Plan does not recognize how much time it will take to develop a proper system for setting priorities. The proposed schedule allows only seven months to develop and initiate [a National Priority System]; the Board believes that to do it right, with public participation, will take more than twice that long. DOE has set itself a

---

[14] Letter from William K Reilly, EPA, to Richard G. Darman, OMB, June 13, 1989.

[15] Plan at 13, Figure 1.2.1.2. The text on page 12 indicates that the system will be developed by April 1990.

> deadline...which the Board considers premature and urges DOE to abandon.[16]

We concur with the Board's recommendation to abandon the current schedule for establishing a prioritization scheme. The Department now has a unique opportunity, in conjunction with EPA and other Federal agencies, to establish a sound and accepted prioritization system before most of the high cost remedial activities must be funded. Although the Department has recently admitted that its schedule is "optimistic",[17] it has not yet changed the target date.[18]

C. The Plan Excludes Many Important Facilities

Earlier this year, Secretary Watkins committed to a Five-Year Plan that would "coordinate and consolidate all Department clean-up activities into a single, integrated plan of action"[19] (emphasis added). Unfortunately, the plan falls far short of this goal by failing to include many DOE facilities with significant environmental problems.

---

[16] Parker, Frank L., National Research Council, Board on Radioactive Waste Management, Review Comments on Predecisional Draft II of DOE's Environmental Restoration and Waste Management Five-Year Plan, August 3, 1989, at 5.

[17] DOE response to comments of the National Research Council, Board on Radioactive Waste Management, accompanying letter from Leo P. Duffy, DOE, to Mary V. White, NRDC, October 19, 1989, at 6.

[18] Longo, Tom P., DOE, Personal Communication with Jim Werner, NRDC, at DOE Internal Review Group meeting, November 2, 1989.

[19] Watkins, James D., Letter to U.S. Representative Thomas A. Luken, March 23, 1989.

The Five-Year Plan excludes all DOE naval reactor facilities, which are administered under the Department's Nuclear Energy program. These facilities include:

- **Knolls Atomic Power Laboratory, Niskayuna, New York**
- **Kesselring Site, West Milton, New York**
- **Windsor Site, Windsor, Connecticut.**
- **Bettis Atomic Power Station, Pennsylvania**
- **Naval Reactor Test Facility, Idaho**

These facilities are probably the most significant omission from the Five-Year Plan because of their size, potential for environmental risk, and the almost complete lack of independent oversight of their activities. None of these naval reactor facilities were included in the Environmental Survey program, Technical Safety Appraisal Program, the 1988 Needs Report, or the Tiger Team assessment plan. Significant contamination of groundwater with heavy metals, solvents and radionuclides has been identified at some of these facilities. Additionally, widespread areas of soil have been found to be contaminated with radioactivity, although a comprehensive survey has not yet been completed.

The Five-Year Plan also fails to include facilities in other program offices such as Fossil Energy and the Power Marketing Administrations[20] that were identified in Environmental Survey

---

[20] This exclusion is acknowledged in the Foreword (page x) of the Plan without any justification for diverging from the mandate established to "consolidate all Departmental waste and cleanup activities" in Secretary Watkins' March 15, 1989 "Memorandum to All Departmental Elements" (emphasis added) included as the first appendix to the Plan.

reports as having significant environmental contamination requiring cleanup, or potential problems requiring investigation. These facilities include, for example:

- **Laramie Project Office**, Wyoming. Problems include: ground water contamination at the Hoe Creek and Hanna Coal Gas experimental sites.[21]

- **Morgantown Energy Technology Center**, West Virginia. Problems include: Mercury, heavy metal and solvent contamination of adjacent streams, sewage system and ponds; and potential radioactive waste contamination of soil.[22]

- **Pittsburgh Energy Technology Center**, Pittsburgh, PA. Problems include: Contamination of nearby streams with oily waste water and coal debris.[23]

- **Strategic Petroleum Reserves**, Texas and Louisiana. Problems include: air pollution from volatile organic compounds, inadequate oil spill containment, and potential ground water contamination.[24]

Finally, several DOE facilities were excluded from the Five-Year Plan without any acknowledgment of their potential for environmental risk. Some of these facilities include:

- **Bonneville Power Administrative Site, Oregon;**
- **Notre Dame Radiation Laboratory, Indiana;**
- **Princeton Plasma Physics Laboratory, New Jersey;**
- **Shippingport Atomic Power Station, Pennsylvania; and**
- **Western Area Power Administration, Colorado.**

---

[21] DOE Office of Environmental Audit, Environmental Survey Preliminary Report, Morgantown Energy Technology Center, DOE/EH/OEV-21-P, June 1988.

[22] Supra Note 21.

[23] DOE Office of Environmental Audit, Environmental Survey Preliminary Report, Pittsburgh Energy Technology Center, DOE/EH/OEV-27-P, September 1988.

[24] DOE Office of Environmental Audit, Environmental Survey Preliminary Report, Strategic Petroleum Reserve, Texas and Louisiana Gulf Coast, DOE/EH/OEV-34-P, January 1989.

If the Department has excluded these facilities on the basis of low potential for environmental risk, then that determination should be stated explicitly along with the criteria used to exclude the facilities.

D. DOE Reorganization Should Not Diminish the Internal Oversight Role of the EH Office

The Five-Year Plan proposes a reorganization to centralize responsibility for carrying out environmental activities.[25] In August, Secretary Watkins approved a plan to begin implementing this reorganization.[26] Recently, the Energy Department specifically proposed a new position of Assistant Secretary for Waste Management and Environmental Restoration to manage responsibilities outlined in the Five-year Plan.[27] Although this new position may help consolidate and coordinate environmental activities, we are concerned that it is a "stalking horse" for the elimination of the existing Office of the Assistant Secretary for Environment, Safety and Health (EH). We are extremely concerned about the impact of any reorganization on the existing EH office.

---

[25] Plan at 22.

[26] Duffy, Leo P., Action Memorandum to the Secretary. "Establishment of an Organization to Implement the Environmental Restoration and Waste Management Five Year Planning Initiative", August 3, 1989.

[27] Barber, Jeff, Inside Energy, "DOE Seeks New Assistant Secretary Post", October 9, 1989.

The EH office serves a valuable role in ensuring environmental compliance among the program and field offices by providing guidance and oversight. Guidance and oversight are known, in modern management terms, as "staff" functions. Such responsibilities are in contrast to "line" functions, which involve actually managing and carrying out operations. Virtually all major industrial corporations recognize the importance of separating line and staff responsibilities. Without adequate separation of these functions, oversight cannot be truly independent and therefore cannot be effective. Although they cannot substitute for external oversight, these internal staff functions are especially important at the Energy Department because of the chronic understaffing of EPA and state regulatory agencies.

The Five-Year Plan provides only a brief mention of the EH "audit and appraisal programs."[28] Internal environmental oversight is discussed in several places in the Plan without any specific description of the EH role.[29] Because of the importance of the EH office in providing guidance and independent internal audits, this role should have been included in the plan as an integral part of assuring environmental compliance.

Internal Energy Department memoranda indicate that "independent internal oversight" is being transferred to a new Office of Environmental Quality Assurance/Quality Control, which

---

[28] Plan at xii.

[29] Plan at 36, 42 and 77.

would report to the new Assistant Secretary for Environment and Waste Management (see Figure 3).[30] The proposed FY90 budget for this office ($22 million) suggests that it is intended as a substitute rather than a supplement for the existing EH Office of Environmental Audit whose FY90 budget is approximately $17 million. In addition, Regulatory Compliance groups established under the new Deputy Assistant Secretaries for Waste Operations and Environmental Restoration would also have significant budgets ($14 million and $11 million, respectively), which also suggests that they will replace rather than supplement the existing Office of Environmental Guidance and Compliance under the Assistant Secretary for Environment, Safety and Health. Nowhere in these memoranda is the existing EH function mentioned.

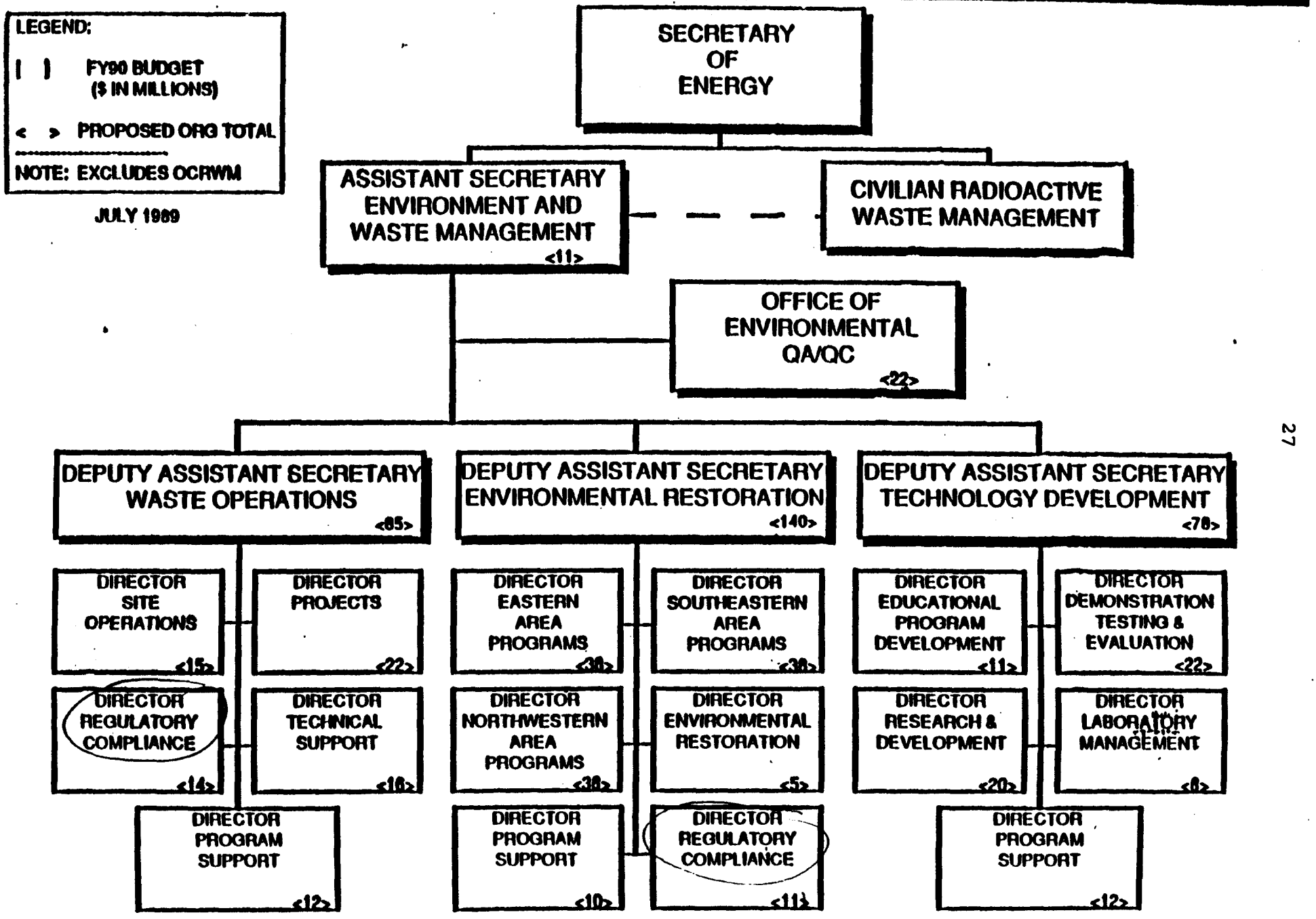
The basic problem with the reorganization revealed by these memoranda is that the proposed Assistant Secretary would be responsible for carrying out the line function of environmental cleanup, compliance and waste management, as well as the staff responsibility of overseeing that such activities are performed properly. Admittedly, the massive environmental cleanup and compliance work needed at Energy Department facilities may require a separate program office under a new Assistant Secretary. However, this line function should not be under the direction of the same Assistant Secretary charged with oversight.

---

[30] Duffy, Leo P., DOE Memorandum to The Secretary: "Establishment of an Organization to Implement the Environmental Restoration and Waste Management Five Year Planning Initiative", August 1989.

FIGURE 3

SUCCESSFUL IMPLEMENTATION OF FIVE-YEAR PLAN REQUIRES CENTRALIZED LINE ORGANIZATION



* Source: August 3, 1989 Memorandum from Leo P. Duffy, Special Assistant to the Secretary for Coordination for DOE Waste Management, to Energy Secretary Watkins.

Our concern about the merging of line and staff functions is not hypothetical. In May, the Energy Department announced that it would shift internal nuclear safety oversight out of EH into three program offices -- Defense Programs, Nuclear Energy, and Energy Research.[31] This reorganization represents a significant step backwards in the progress that has been made in recent years to establish some accountability in Department operations. In fact, under Secretary Herrington the oversight function of EH was actually strengthened. Thus, in 1985, Secretary Herrington stated, "[a]t present, oversight responsibility for environment and safety is scattered among the Assistant Secretaries. [O]versight responsibility for the environment, safety and health function will be consolidated and upgraded...."[32] Secretary Watkins' reorganization would reverse this earlier reorganization, which was one of the most positive developments at the Energy Department under the previous administration.

The proposed elimination of internal safety oversight within EH has been criticized by former Nuclear Regulatory Commission chairman John Ahearne, now chairman of the DOE Advisory Committee on Nuclear Facility Safety. Commenting on the proposed reorganization, Mr. Ahearne indicated that, although "prime responsibility for safety and environment should rest with line

---

[31] Secretary of Energy Notice SEN-6-89, "Departmental Organization and Management Arrangements", May 1989, and SEN-6A-89, September 28, 1989.

[32] Herrington, John S., DOE News: "Herrington Announces 3-Point Plan to Strengthen Environment, Safety and Health Programs", R-85-111, at 1, September 18, 1985.

management, we believe that it is equally important to maintain a strong, independent oversight function."[33] Transferring EH responsibility to the nuclear program offices and to the new Office of Environment and Waste Management flies directly in the face of this important principle.

The proposed reorganization has also been criticized from within the Energy Department. We have obtained copies of letters written by a nuclear engineer, Darrell A. Huff, in the Department's EH Office of Safety Appraisals.[34] Mr. Huff notes that the reorganization would not only fail to provide effective oversight, but would also be inefficient because of the duplication of technical capabilities. Currently, technical specialists from EH provide oversight of multiple program offices. Under the proposed reorganization, personnel would be assigned to a single program office, and specialists could no longer be shared by programs. According to Mr. Huff, "instead of hiring 6 seismic experts across three separate safety organizations, you may only need 4 such experts in a single organization". He concluded, "I do not believe that...the proposed self-assessment organizations...are sufficiently independent of the financial and production pressures such that

---

[33] The Energy Daily, Volume 17(167), "Ahearne Hits Reorganization Plan", at 1, September 1, 1989.

[34] Huff, Darrell A., Letters to Representative Harley O. Staggers (June 1, 1989 and July 20, 1989) and Senator Jay Rockefeller (October 27, 1989). Mr. Huff is a resident of West Virginia.

these organizations could function as truly independent entities."[35]

In response to concerns about the independence of placing oversight function within program offices, the Department recently amended the May proposal to include an Office of Nuclear Safety, which would be responsible for "advis[ing] the Secretary of whether line management and its self-assessment functions are adequately assuring nuclear safety." (emphasis added).[36] But this proposal fails to acknowledge that self-assessment is simply not the same thing as the independent assessment that EH could carry out. Similarly, the proposed Office of Environmental Quality Assurance/Quality Control would be relegated to assuring the adequacy of "self-assessment" rather than performing independent assessments.

The Energy Department should withdraw its proposed reorganization of the EH safety office announced in May. Moreover, DOE should not proceed with any similar dismantling of the EH environmental office.

E. Public Input in the Preparation and Implementation of the Plan is Too Limited

The Energy Department failed to solicit adequate public input in the preparation of its Five-Year Plan. Many of the Department's historic problems can be traced to its history of

---

[35] Huff, October 27, 1989.

[36] SEN-6A-89 at 4.

secrecy and failure to involve the public in its decision-making process. Although EPA and selected States[37] and Indian tribes were given the opportunity to comment on drafts of the Five-Year Plan, several key States were excluded from the process. Table 3 lists the States with DOE facilities that were not invited to participate in the development of the Five-Year Plan. DOE also did not provide any opportunity for public interest groups or citizens to participate in the development of the Plan.

The States that were invited to participate are not necessarily those with the most environmentally-significant DOE facilities in view of the exclusion of California and New York. Nor does the selection of States appear to have been based on the defense role of the facility in view of the inclusion of Kentucky, which is the source of only low enriched uranium, and the exclusion of Texas, which hosts the Pantex Plant where nuclear warheads are assembled. Also, the selection was not based on the States that signed a joint letter to Secretary Watkins[38] earlier this year, in view of the exclusion of Oregon, whose largest city is located downstream of the Hanford Reservation.

The Plan indicates that the development of the National Prioritization System and the review of the forthcoming "Research, Development, Demonstration, Testing and Evaluation

---

[37] Colorado, Idaho, Kentucky, Nevada, New Mexico, Ohio, South Carolina, Tennessee, Washington

[38] Defense Waste Cleanup: A Proposal for a National Solution, April 14, 1989.

TABLE 3

STATES WITH DOE SITES NOT INVITED TO PARTICIPATE
IN DEVELOPMENT OF FIVE-YEAR PLAN OR PRIORITIZATION SYSTEM

	State	DOE Site(s)
-	California	Lawrence Livermore National Laboratory (Main Site and Livermore Site 300)
		Lawrence Berkeley Laboratory
		Energy Technology Engineering Center
		Stanford Linear Accelerator
		Laboratory for Energy-Related Health Research
		Sandia National Laboratories/Livermore
-	Florida	Pinellas
-	Missouri	Kansas City Plant
-	New York	Brookhaven National Laboratory
		West Valley Site
		Knolls Atomic Power Laboratory
		Kesselring Site
-	Texas	Pantex Plant

Source: DOE Office of Energy Research Field Operation Management, Capsule Review of DOE Research and Development and Field Facilities, DOE/ER-3005, September 1986.

(RDDT&E) plan" will be done by the State and Tribal Government Working Group.[39] This group does not include all of the DOE states or any public interest group representative. Admittedly, the Department has created a separate external review group, including citizens' groups, to comment on the prioritization system. However, the inclusion of these groups occurred only after the National Research Council specifically suggested that "federal agencies, contractors, and communities near DOE sites, as well as environmental and public interest groups" be included in the process for developing a prioritization system.[40] We believe that, rather than creating a separate review group, the Department should simply expand the State and Tribal Government Working Group to include public interest groups and all affected states.

III. CONGRESS' RESPONSE

A. Congress Should Scrutinize Carefully the Shifting of Activities Into Environmental Categories

The consolidation of environmental functions outlined in the Five-Year Plan could enhance Congress' ability to oversee the Department's cleanup activities. But Congress must ensure that only legitimate environmental activities are included in the consolidated environmental budget. Furthermore, to the extent that activities have been shifted out of the materials production

---

[39] Plan at 12.

[40] NRC at 5, August 3, 1989. Supra note 16.

budget, Congress should ensure that a commensurate decrease in that budget category occurs unless legitimate new materials production activities are identified.

B. Congress Should Direct DOE to Halt the Use of Its Prioritization Model - A New Prioritization System Should be Developed with EPA and Other Federal Agencies and With Public Input

The Prioritization System previously developed by the Energy Department is fatally flawed and its use should be halted immediately. Congress should direct the various federal agencies to meet and address the issue of multiple prioritization systems. There are at least two possible outcomes: one possibility is that a uniform national prioritization system is developed that all federal agencies use to set cleanup priorities. Another outcome might be that a uniform set of principles is developed that each agency uses to develop its own prioritization system. In any event, DOE should cease use of its current prioritization model and abandon its current schedule for developing a new system.

C. Congress Should Codify the Position and Role of the Assistant Secretary for Environment, Safety and Health to Provide Independent Internal Oversight

In light of the current ambiguity within DOE about the future of the Office of the Assistant Secretary for Environment, Safety and Health, Congress should adopt legislation which

codifies the position and role of the EH Office in providing independent internal oversight.

D. Congress Should Ensure that DOE is Following up on its Studies to Remedy Environmental Problems.

The Energy Department has just recently completed environmental surveys of 35 of its facilities cataloging hundreds of environmental problems. In response to these findings, DOE field offices prepared "Action Plans" indicating how they intend to resolve the identified problems. But it is unclear whether the Action Plans are really being carried out. The investigations are useful in identifying environmental problems to be addressed. But, unless there is adequate followup to ensure that the problems are effectively corrected, then the investigations will be simply paper studies. We are concerned that the investigations now being conducted by the Tiger Teams will have a similar fate. Congress should direct DOE to report publicly on how and when the problems identified in the Survey and Tiger Team Investigations will be resolved.

E. Congress Should Compel DOE to Include all Sites in its Cleanup Plans - Including those in the Naval Nuclear Program

The Five-Year Plan fails to include all DOE nuclear facilities despite promises to do so. Congress should direct DOE to include all DOE facilities including Naval reactor facilities as well as facilities in the Fossil Energy, Power Marketing Administrations, and other programs.

ATTACHMENT A-1

DISTRIBUTION OF ENVIRONMENTAL RESTORATION FUNDING

DEFENSE SITE NAME	PERCENT OF TOTAL ENVIRONMENTAL RESTORATION BUDGET							
	1988	1989	1990	1991	1992	1993	1994	1995
Kansas City Plant	0.34%	2%	0.44%	0.74%	0.67%	0.60%	0.59%	0.54%
Los Alamos	0.51%	2%	1%	3%	4%	4%	4%	4%
Mound Plant	4%	4%	3%	3%	3%	5%	4%	4%
Pantex Plant	0.93%	0.8%	0.6%	1.5%	1.2%	1.1%	1.0%	1.1%
Pinellas	0.12%	0.3%	0.2%	0.4%	0.4%	0.5%	0.6%	0.4%
Rocky Flats Plant	2%	6%	6%	6%	4%	4%	3%	4%
Sandia/Alb.	0.36%	0.7%	0.9%	1.0%	1.4%	0.9%	0.7%	1.0%
Sandia/Livermore	-	0.3%	0.2%	0.2%	0.3%	0.3%	0.3%	0.0%
Fernald	7%	7%	8%	12%	14%	16%	15%	14%
INEL	11%	10%	18%	13%	6%	7%	8%	9%
SAN (incl. Lvrmr).	10%	5%	5%	3%	3%	3%	2%	2%
Nevada Test Site	0.35%	1%	1%	2%	2%	4%	8%	7%
Oak Ridge Nat.Lab	8%	6%	10%	9%	14%	14%	11%	6%
Oak Ridge K-25	-	5%	6%	8%	10%	10%	9%	10%
Savannah River	14%	12%	12%	10%	8%	8%	8%	6%
Hanford***	24%	17%	18%	20%	20%	17%	21%	27%
Y-12	11%	10%	9%	6%	6%	6%	6%	5%
Other Sites	6%	12%	0%	0%	0%	0	0	0
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

* Compiled from U.S. Department of Energy, Environmental Restoration and Waste Management Five Year Plan, DOE/S-0070, August 1989.

ATTACHMENT A-2

ENVIRONMENTAL RESTORATION FUNDING
FOR ENERGY DEPARTMENT FACILITIES
($ thousands)

FISCAL YEAR / SITE NAME	1989	1990	1991	1992	1993	1994	1995
Portsmouth	12,385	17,080	15,418	11,544	17,044	20,544	18,044
Kansas City Plant	374	2,413	4,994	5,380	5,615	6,234	5,815
Los Alamos	450	8,203	18,102	31,666	35,526	36,972	38,392
Mound Plant	4,510	17,538	22,927	25,570	42,292	43,364	42,169
Pantex Plant	410	3,240	10,046	10,046	10,046	10,661	12,046
Pinellas	100	1200	2,900	3,545	4606	5,808	4,258
Rocky Flats Plant	700	32,130	40,984	29,948	36,647	33,606	45,732
Sandia/Alb.	400	5,042	6,868	11,364	8,817	7,212	10,694
Sandia/Livermore	100	1,120	1,310	2,257	2,900	2,900	0
Fernald	9,550	44,353	84,127	113,867	149,759	154,395	154,111
INEL	23,175	97,028	85,851	46,914	70,173	88,760	95,361
SAN (incl. Lvrmr).	10,770	25,196	20,298	28,003	26,227	18,111	16,666
Nevada Test Site	1,486	3,125	15,352	18,602	33,492	82,863	77,399
Oak Ridge Nat.Lab	12,021	53,227	60,527	112,075	133,100	113,235	66,440
Oak Ridge K-25	0	35,465	57,206	84,457	89,852	89,436	108,512
Savannah River	18,518	67,833	69,205	66,010	74,960	79,490	60,410
Hanford***	28,123	98,800	133,800	164,800	156,400	217,500	291,800
Y-12	28,028	51,825	40,140	52,250	56,000	60,000	57,000
Other DP Sites	20,610	-	-		-	-	-

* Compiled from U.S. Department of Energy, Environmental Restoration and Waste Management Five Year Plan, DOE/S-0070, August 1989.