DOE/CR-0047

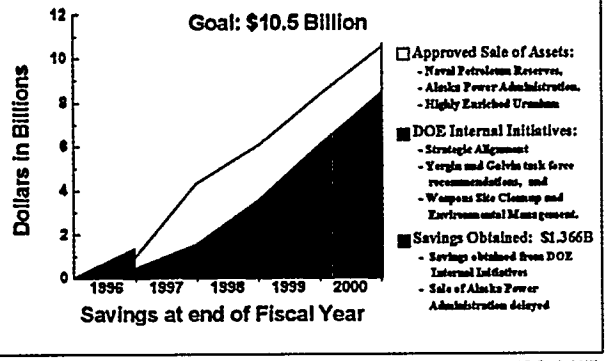
U. S. Department of Energy

Consolidated Financial Statements for Fiscal Year 1996

Prepared by the Office of Chief Financial Officer

DOE's Crosscut Critical Few Charts

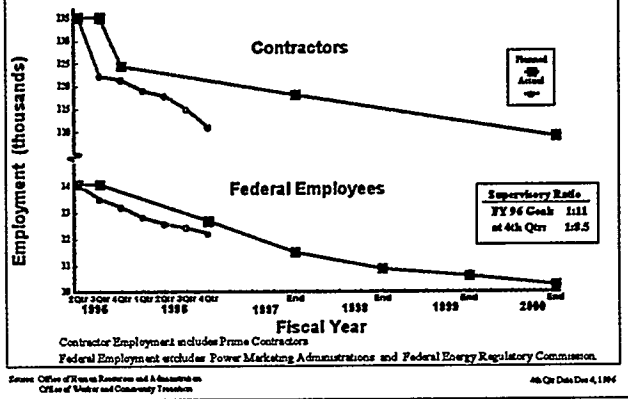
5 Year Savings Projection



Source: Office of the Chief Financial Officer

4th Qtr Data Jan 1, 1997

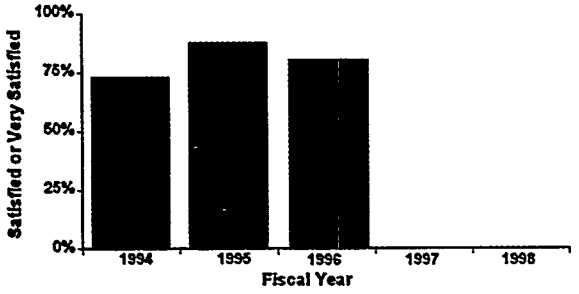
DOE Employment



Source: Office of Human Resources and Administration
Office of Worker and Community Transition

4th Qtr Data Dec 4, 1996

DOE Customer Satisfaction

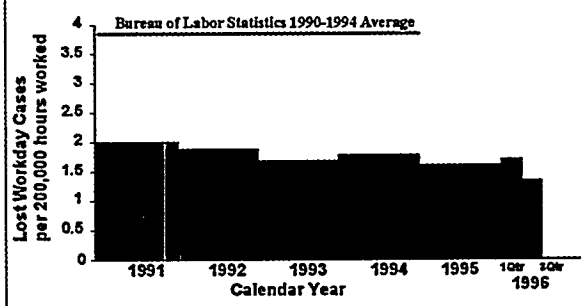


1994 data based on a survey of 1,200 customers completed.
1995 data based on surveys conducted by 7 DOE organizations of a total of 1,130 customers
1996 data based on surveys conducted by 8 DOE organizations of a total of 2,831 customers

Source: Office of Quality Management

4th Qtr Data Nov 1, 1996

Lost Workday Case Rate

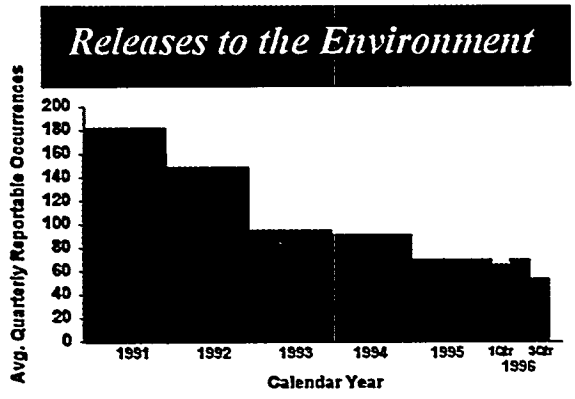


Uses Bureau of Labor Statistics standards for reportable worker accidents
Includes industrial/operational/production facilities only, excludes federal workers

Source: Office of the Environment, Safety and Health

4th Qtr Data Sep 30, 1996

Releases to the Environment

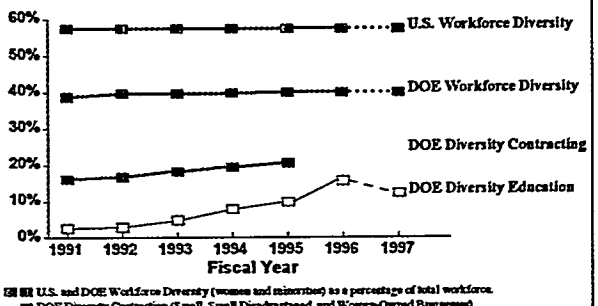


Releases requiring non-routine reporting to federal, state or local regulatory agencies using criteria identified in DOE Order 232.1, Occurrence Reporting and Processing of Operations Information

Source: Office of Environment, Safety and Health

4th Qtr Data Oct 7, 1996

Diversity in Contracting, Education, and DOE's Workforce



U.S. and DOE Workforce Diversity (women and minorities) as a percentage of total workforce.
DOE Diversity Contracting (Small, Small Disadvantaged, and Women-Owned Businesses) as a percentage of total DOE contracting.
DOE Diversity Education as a percentage of DOE funding to all institutions of higher education.

Source: Office of Economic Impact and Diversity

4th Qtr Data Dec 14, 1996

Final for 4th Qtr FY 96

DISCLAIMER

CONSOLIDATED FINANCIAL STATEMENTS FOR FISCAL YEAR 1996

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The Chief Financial Officer is interested in the comments and suggestions of those who read this document. The Reader Reponse Sheet at the end of this document is designed to provide information on ways to improve this report and make it more useful to you, our valued customer. Please take a few minutes to complete the response sheet and forward it as indicated.

February 1997

U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585-1000
Telephone: 202-586-4171

Charles B. Curtis

Message from the Acting Secretary

It is my pleasure to present the Department of Energy's audited financial statements for fiscal year 1996. The Department has prepared these statements as required by the Chief Financial Officers Act of 1990 and the Government Management Reform Act of 1994 and related central agency guidance. The Office of the Inspector General has conducted an audit of these statements in accordance with generally accepted government auditing standards. This audit resulted in an unqualified opinion. The accomplishments and results achieved during fiscal year 1996 and reflected in these statements have allowed the Department to deliver more quality products and services.

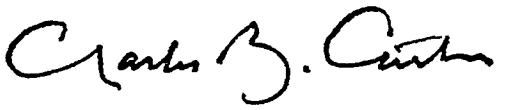
Fiscal Year 1996 marked the second year the Department executed a Performance Agreement with the President. In carrying out the agreement, we continued to advance the nation's priorities and the Administration's commitments in science and technology, national security, environmental quality, and energy resources. The Department continued the difficult task of downsizing through office consolidations, business process reengineering, and elimination of nonessential activities. Building upon past successes, we strengthened nuclear nonproliferation, replaced underground testing with science applications, began the process of understanding and dealing with risks associated with environmental problems resulting from nuclear weapons production during the Cold War, and continued the promotion of secure, clean, and affordable supplies of energy.

The Department continues to move toward more efficient and effective government and has progressed in achieving the $1.7 billion in savings over five years that we committed to in announcing our Strategic Alignment Initiative in May of 1995. Our efforts to reduce Federal spending through the Strategic Alignment Initiative have resulted in the departure of 1,397 Federal employees (of which 999 occurred during Fiscal Year 1996), the closure of eight field site offices, the vacating of five headquarters office locations, and the consolidation of several programs. The Department has utilized management tools such as buyouts, attrition, outplacement, critical position hiring, and involuntary separations to achieve staffing targets. A review of the Strategic Alignment Initiative, conducted by the General Accounting Office, complimented us on our efforts and savings accomplishments that are being realized ahead of our targets, but encouraged us to exercise diligence and persistence throughout the next four years.

The Department has adopted a policy of openness to better serve the nation and increase confidence in Departmental decisions. Over the past several years, the Department has declassified thousands of documents, many of which have contributed to public discussion of complex issues such as the disposition of plutonium and the ethics of early medical experiments that helped to determine the effects of radiation. The Department has also reduced an extensive backlog of public requests for information.

The future will provide demanding and unprecedented challenges for the Department. I have confidence in our good management team and our dedicated and talented employees who have demonstrated a continued commitment to turn resources into results for a productive future. The Depart-

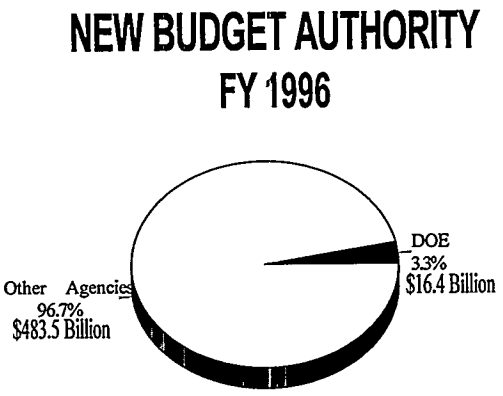
ment will continue to be open and collegial to all stakeholders and strive for excellence and efficiency in all programs. By anticipating the need to change and maintaining a commitment to customer service and operational excellence, the Department will be well positioned to address the challenges and opportunities of the future.



Charles B. Curtis
Acting Secretary of Energy

Overview

The following overview and accompanying audited financial statements have been prepared for Fiscal Year (FY) 1996 to report the financial position and the results of operations of the Department of Energy. These statements include the consolidated Statement of Financial Position and the consolidated Statement of Operations and Changes in Net Position. The statements have been prepared in accordance with the Office of Management and Budget Bulletin No. 94-01, *Form and Content for Agency Financial Statements,* and were developed in accordance with the hierarchy of accounting standards described therein.



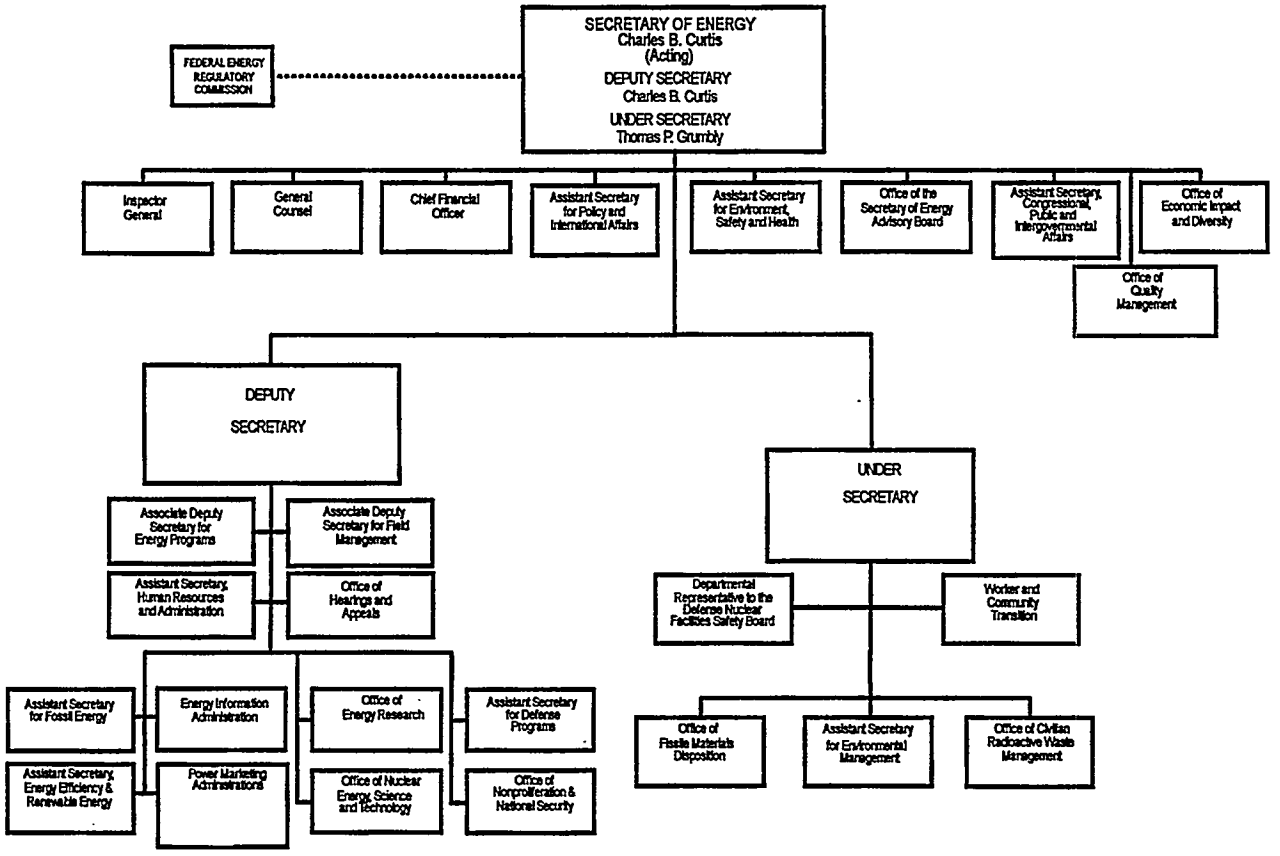
The overview provides a narrative on the Department of Energy's mission, activities, and accomplishments. Utilizing performance measures as the primary vehicle for communicating Departmental accomplishments and results, this overview discusses the most significant measures while others are discussed in the supplemental information to the financial statements.

Profile of the Department of Energy

The Department of Energy's roots can be traced to the Manhattan Engineer District of the U.S. Army Corps of Engineers, which was established in 1942 to manage development of the atomic bomb. After World War II, Congress created the Atomic Energy Commission in 1946 to direct the design, development, and production of nuclear weapons. The Atomic Energy Commission was also responsible for developing nuclear reactors and, in later years, regulating the commercial nuclear power industry. In 1975, Congress replaced the Atomic Energy Commission with the Nuclear Regulatory Commission and the Energy Research and Development Administration. These agencies were created to manage the nuclear weapons, naval reactors, and energy development programs and to research the environmental, biomedical, and safety aspects of energy technologies. In 1977, Congress created the Department of Energy, which brought together functions and responsibilities of the Energy Research and Development Administration and units of other agencies under one cabinet level department.

Today the Department of Energy provides vital services to the nation in preserving our national security, advancing U.S. leadership in science and technology, building a sustainable energy future, and engaging in the largest environmental cleanup of our nation's history. At the Department of Energy, we are focused on the way we deliver these services in view of our changing post-Cold War mission and our obligation to make the most cost effective use of the taxpayer's hard earned dollars.

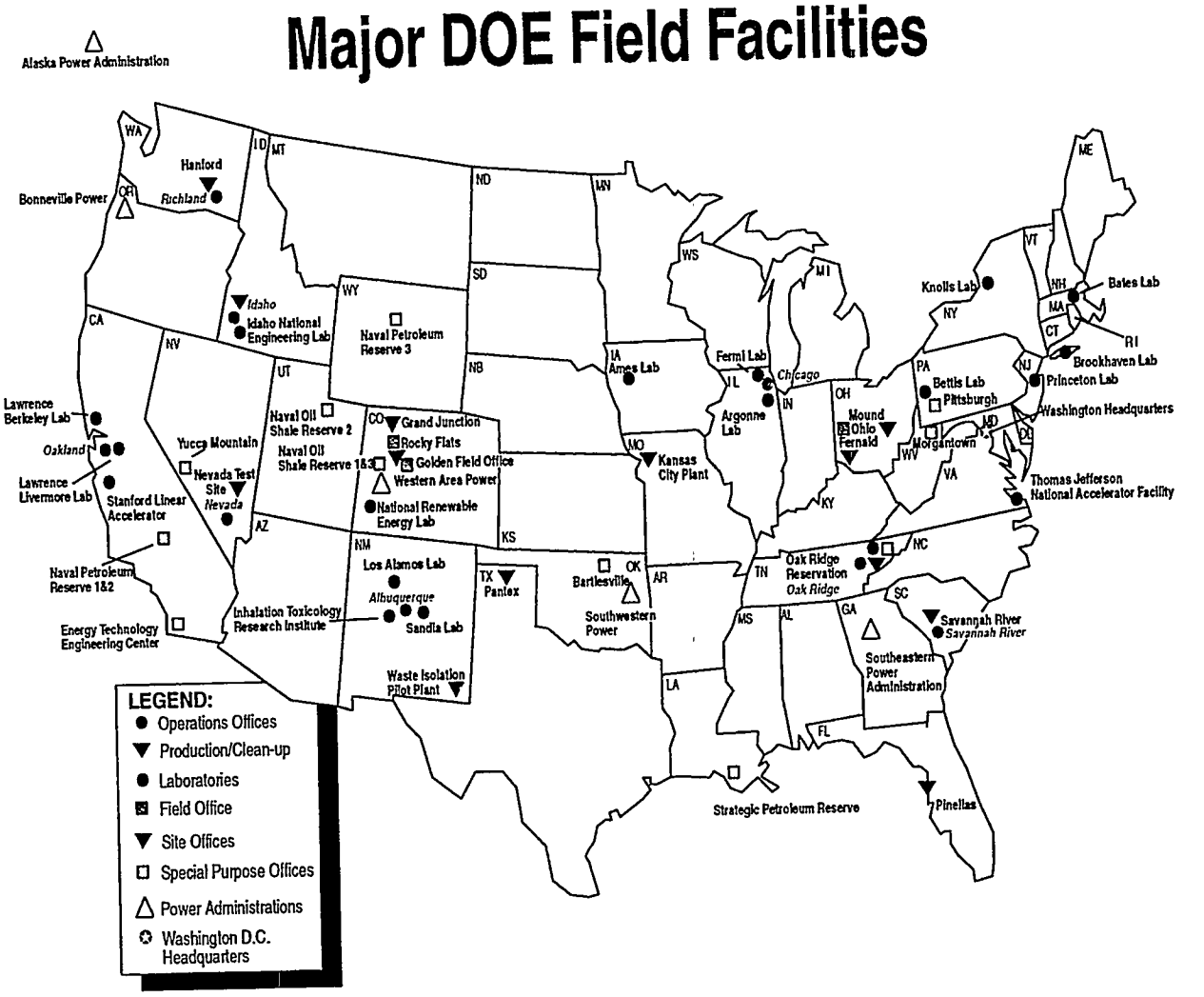
Organization and Structure of the Department



The Department's headquarters organizations are located in Washington, D.C. and Germantown, MD and consist of an executive management structure that includes the Secretary, the Deputy Secretary, and the Under Secretary; nine Secretarial staff organizations; and program organizations that provide technical direction and support to the principal programmatic missions of the Department. The Department's organization also includes the Federal Energy Regulatory Commission, which is an independent regulatory organization within the Department having responsibility for setting rates and charges for the transportation and sale of natural gas and for the transmission and sale of electricity and the licensing of hydroelectric power projects.

The Department has a complex field structure that is comprised of operations offices, field offices, power marketing administrations, laboratories, and other facilities, as reflected in the following chart. The eight operations offices are the largest field organizations under the Secretary's supervision and management and provide a formal link between headquarters, the laboratories, and other operating facilities. The Department also has several other field offices concerned primarily with specific programs. These field offices include the Rocky Flats Field Office (responsible for managing waste and materials, clean-up, and converting the site to beneficial use), the Golden Field Office (responsible for promoting the research, development, commercialization, and worldwide application of energy efficiency and renewable energy technologies), the Ohio Field Office (primarily responsible for

providing administrative, financial, and technical support in completing environmental restoration and waste management at the Fernald Environmental Management Project Area Office), the Naval Petroleum Reserves Offices (responsible for managing, operating, and maintaining the Reserves to produce oil and gas for the greatest value and benefit to the United States), the Energy Technology Centers (responsible for providing research, development, and deployment of technologies for the greater use of coal and other energy sector products), and the Naval Reactor Offices (responsible for overseeing the Bettis and Knolls Atomic Power Laboratories). The marketing and transmission of electric power produced at Federal hydroelectric projects and reservoirs is carried out at the Department's five power marketing administrations. The vast majority of the Department's energy research and development, nuclear weapons research and development, and testing and production activities are carried out by major contractors at laboratories and other facilities located across the country. These major contractors (e.g., management and operating (M&O) contractors, management and integrating contractors, and environmental restoration management contractors) operate, maintain, or support the Department's Government-owned facilities across the country on a day-to-day basis.



More information about the Department can be obtained by accessing our Internet home page at http://www.doe.gov

Mission of the Department

The Department's first priority is to help the President achieve his vision of an investment-driven economy capable of creating high wage jobs that increase incomes of the American people. This requires a strategy for empowering and utilizing the Department's tremendous scientific and technological assets to help the U.S. compete in the global economy. This has prompted the Department's mission which reads as follows:

> ***The Department of Energy, in partnership with our customers, is entrusted to contribute to the welfare of the Nation by providing the technical information and scientific and educational foundation for the technology, policy, and institutional leadership necessary to achieve efficiency in energy use, diversity in energy sources, a more productive and competitive economy, improved environmental quality, and a secure national defense.***

Recent changes in the world have had a profound impact on the Department. The end of the Cold War has allowed us to reshape our vision and change how we do business. Our vision is as follows: The Department of Energy through its leadership in science and technology will advance U.S. economic, energy, environmental, and national security by being:

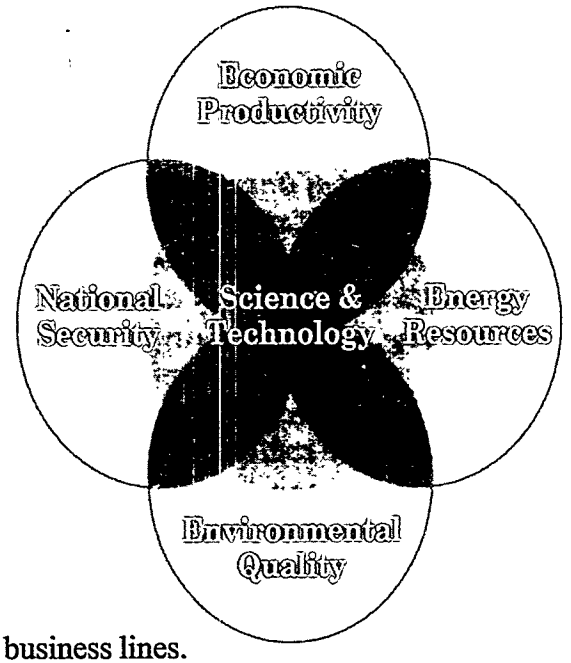
- A key contributor in developing, applying, and exporting sustainable, clean, and economically competitive energy technologies.
- A key contributor in maintaining U.S. global competitiveness through leadership in environmentally-conscious materials, technologies, and industrial processes.
- A major partner in maintaining energy security and reducing vulnerability to energy disruptions through international leadership in effective, coordinated emergency response and petroleum replacement plans and programs.
- A major partner in world class science and technology, research centers, university research, and educational programs.
- A world class leader in environmental restoration, waste management, and pollution prevention.
- A vital contributor to reducing the global nuclear danger through its national security and nonproliferation activities.
- A safe and rewarding workplace that promotes excellence, nurtures creativity, rewards achievement, and is results-oriented and enjoyable.

The key goals to accomplish the Department's mission are:

- Leverage the Department's unique science and technology capabilities to provide knowledge that drives the nation's future.
- Reduce the global nuclear danger.
- Restore, stabilize, protect, and enhance the environment.
- Develop and promote clean efficient energy technologies and enhance energy security.
- Stimulate U.S. economic productivity.

Accomplishing the Goals through 5 Business Lines

More than ever, American citizens are holding the government more accountable for superior results with fewer resources. We now measure performance from the customer's perspective, strategically aligning business plans, goals, and organizational structures with our vision. The Department has developed a strategic plan which defines and integrates the business activities into "business lines" that represent elements of the Department's mission: science and technology; national security; environmental quality; energy resources; and economic productivity. In order for the Department's business lines to produce results and sustain all of our initiatives, the organizational systems need alignment and integration. Therefore, the Department has developed four critical success factors - communication and trust; human resources; environment, safety, and health; and management practices - that must be integrated into each of the five business lines.



Program Performance Measure Highlights

The Department has established commitments that identify our most significant outcomes under each business line and critical success factor. Under each of these commitments, the Department has established "measures of success" consistent with our FY 1996 budget. The FY 1996 Performance Agreement with the President sets forth 67 commitments and 183 measures of success. Many of these significant performance commitments are discussed within the overview, and the remaining performance commitments are discussed in the supplemental information.

The following performance commitments highlight many of the Department's significant FY 1996 results under each business line and each critical success factor.

Business Lines

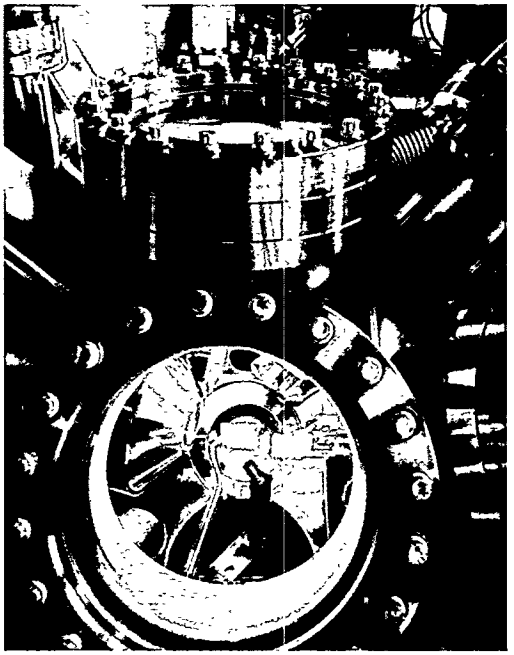
Science & Technology

Leverage DOE's Unique Science and Technology Capabilities to Provide Knowledge that Drives the Nation's Future.

Fundamental and applied research supported by the Department advances U.S. world leadership in science, mathematics, and engineering. The Department's National Laboratories play a critical role in large scale, multi-disciplinary research in the national interest. The Department offers unique

advanced research facilities for the use of the nation's and world's scientific community. We support the research of individuals of unparalleled intellectual strength and scientific curiosity.

Our energy, environmental, and health research provide the foundation for new technologies that supply energy, conserve resources, control pollution, reduce manufacturing waste, predict the impacts of global climate change, develop new ways to cleanup hazardous waste, and assess energy related health and environmental risks. Our basic research in high energy physics and fusion leads to new insights into the nature of energy and matter. The Department also provides leadership in the national effort to improve science, mathematics, and engineering education.



AT&T Bell Laboratories built this unique chamber at the National Synchrotron Light Source at the Brookhaven National Laboratory for surface studies of materials.

Improving Service Delivery at DOE Science Facilities

Improve the efficiency of operations and quality of services provided to scientists at the Department's leading-edge basic research facilities. Ensure that facilities are available to users and operated in a reliable and predictable manner that ensures high-quality research products and technology innovations.

Goal:

Increasing the availability of DOE scientific facilities consistent with the Science Facilities Initiative to enable a wide array of research that will advance science and produce tomorrow's technologies by increasing the operating time at the:

- *Stanford Synchrotron Radiation Laboratory from 4,000 to 5,600 hours, a 40 percent increase;*
- *Advanced Light Source from 3,000 to 4,200 hours, a 40 percent increase;*
- *Intense Pulse Neutron Source from 2,000 to 4,000 hours, a 100 percent increase; and*
- *High Flux Beam Reactor from 3,600 to 4,700 hours, a 30 percent increase;*

and increasing or upgrading user beamlines from 200 to 210 to improve user capabilities at the synchrotron light sources and neutron facilities.

FY 1996 Results:

The Department has improved the efficiency of operations and quality of services provided to scientists at the Department's leading-edge basic research facilities. The Department continues to ensure that facilities are available to users and operated in a reliable and predictable manner that ensures high-quality research products and technology innovations. Consistent with the Science Facilities Initiative, the Department's operating times have increased:

- *Stanford Synchrotron Radiation Laboratory operating at 5,252 hours, a 31 percent increase;*
- *Advanced Light Source operating at 4,461 hours , a 49 percent increase;*
- *Intense Pulse Neutron Source operating at 4,104 hours, a 105 percent increase; and*
- *High Flux Beam Reactor operating at 6,261 hours, a 74 percent increase.*

There were 11 new beamlines and 8 upgraded beamlines put into operation during FY 1996 to improve user capabilities at the synchrotron light sources and neutron facilities, and several more have received funding.

Transferring Environmental Technologies

Demonstrate new environmental technologies and systems and transfer them to private industry and Federal facilities.

Goals:

Demonstrating over 166 new environmental technologies and systems, to include the:

- *Radioactive Plasma Hearth Process;*
- *Cesium Removal Demonstration at Oak Ridge; and*
- *Spectral Gamma Probe for Cone Penetrometer.*

FY 1996 Results:

Due to decreased funding and delays, the Department revised the target to 126 new environmental technologies and systems demonstrated. The Department has completed the key technologies and systems; however, only 123 of the 126 planned demonstrations were completed due to technical or procurement problems.

Making 66 environmental technologies available for transfer and use by private industry and Federal facilities, to include the:

- *Light Duty Utility Arm at Hanford;*
- *Portable Vitrification Unit at Oak Ridge;*
- *Mobile Evaporator at Oak Ridge; and*
- *LASAGNE™ in-situ process for waste treatment.*

The target was also revised to 48 technologies available for transfer and use because of decreased funding and delays. The Department completed 44 of the 48 planned transfers. The four not completed were delayed until FY 1997 due to problems during the final demonstration phase or cost and performance data reviews.

Exploring the Frontiers of High Energy Physics

Pursue opportunities for the U.S. to participate in the Large Hadron Collider (LHC) project at the European Laboratory for Particle Physics (CERN) in Geneva, Switzerland to explore the frontier of experimental high energy physics and promote increased international scientific collaboration.

Goal:

Success will be measured in 1996 by negotiating one or more LHC agreements with CERN, in partnership with the National Science Foundation (NSF) to enable American scientists to explore the fundamental nature of energy and matter.

FY 1996 Results:

In June 1996, the Department's negotiating team reached tentative agreement on DOE contributing $200 million in goods and services to the LHC Accelerator and $250 million to the two large detectors over a 10 year period. NSF will contribute about $80 million. The Umbrella Agreement and Accelerator and Detector Protocols have been drafted and are under review by the administrative Working Group. The Accelerator and Detector Working Groups have identified areas of responsibility within defined funding levels. Work is progressing with interested U.S. laboratory and university groups on detailed cost estimates and proposal preparation for DOE and NSF.

Providing Radioisotope Power Systems for U.S. Space Exploration

Provide the Radioisotope Thermoelectric Generators (RTGs) and Radioisotope Heater Units (RHUs) for current National Aeronautics and Space Administration (NASA) missions and maintain the infrastructure and capability to produce radioisotope power systems for the future.

Goals:

Delivering, by August 1996, three RHUs for the Mars Pathfinder mission to be launched in December 1996.

FY 1996 Results:

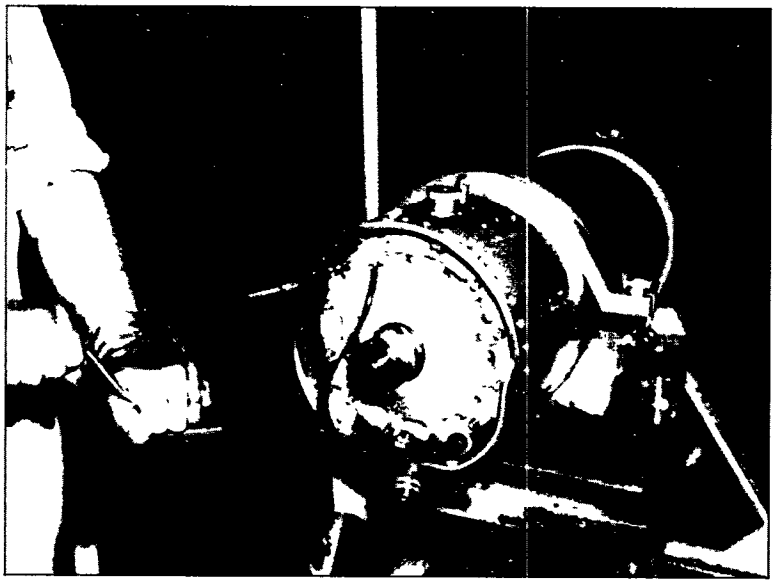
The Department delivered on schedule the three RHUs for the Mars Pathfinder mission, which was launched in December 1996.

Completing fabrication of 157 RHUs and two of the three heat sources to be placed in the RTGs for the 1997 Cassini mission to Saturn.

The fabrication of the 157 RHUs and the two heat sources for the RTGs was successfully completed for the Cassini mission to Saturn.

National Security

Reduce the Global Nuclear Danger



The parachute is removed from the tail section of a nuclear weapon during disassembly at the Pantex Plant in Amarillo, Texas. DOE has disassembled some 50,000 nuclear weapons over the years in a safe, secure, efficient, and environmentally sound manner.

The Department is responsible for effectively supporting and maintaining a safe, secure, and reliable enduring nuclear weapons stockpile without underground nuclear testing or new weapons production. In addition, the Department will safely dismantle and dispose of excess weapons and provide the technical leadership for national and global nonproliferation activities.

In August of 1995, the President announced the U.S. would seek a zero-yield Comprehensive Test Ban Treaty. This decision was based in part on assurances by the Department that our science based stockpile stewardship program, along with new certification procedures, would ensure the continued safety and reliability of the nuclear weapons stockpile.

The Department developed a Stockpile Stewardship and Management program as a single, highly integrated technical program for maintaining the safety and reliability of the U.S. nuclear weapons stockpile in an era without underground testing or new weapons production. The program has three basic challenges: (1) maintaining the enduring nuclear weapons stockpile while transforming the complex into one more appropriate for a smaller stockpile; (2) preserving the core intellectual and technical competencies of the weapons laboratories; and (3) ensuring the activities needed to maintain the nation's nuclear deterrent are coordinated and compatible with the nation's arms control and nonproliferation objectives.

Reducing the Weapons Stockpile

Safely reduce the U.S. nuclear weapons stockpile in order to reduce the nuclear danger and enhance international accord.

Goal:
Dismantling 1,164 weapons in FY 1996 without adversely impacting the environment, public safety, and health.

FY 1996 Results:
The Department has dismantled 1,064 warheads. The target of dismantling 1,164 warheads was not reached due to the temporary shutdown of the B61-2 weapon dismantlement line with safety concerns that slowed down operations.

Managing Surplus Weapons-Usable Fissile Materials

Define and implement a path forward for verifiable storage and disposition of U.S. weapons-usable fissile materials and support efforts to attain reciprocal actions for disposition of surplus Russian plutonium.

Goals:	FY 1996 Results:
Publishing, by February 1996, a draft and, by September 1996, the final Programmatic Environmental Impact Statement (PEIS) for storage and disposition of weapons-usable fissile materials.	*The Department issued a draft PEIS for Storage and Disposition of Surplus Weapons-usable Fissile Materials in February 1996, and a final PEIS was released in December 1996. A Record of Decision was released in January 1997. These efforts will provide the President with the basis and flexibility to implement plutonium disposition in a manner that encourages reciprocal action abroad.*
Completing by May 1996 a final Environmental Impact Statement (EIS) for down-blending surplus weapons-usable uranium into low enriched uranium for potential use in commercial reactor fuel.	*The final EIS for the Disposition of Surplus Highly Enriched Uranium was approved for publication in May 1996, and the Department's preferred alternative is to down-blend highly enriched uranium to low enriched uranium for peaceful use as commercial reactor fuel.*
Completing, by September 1996, a United States/Russian joint study to develop a set of consistently evaluated plutonium disposition alternatives.	*The report of the joint U.S./Russian working group studying technical options for the disposition of surplus weapons plutonium was completed and sent to Presidents Clinton and Yeltsin in September 1996.*

Establishing Transparent and Irreversible Nuclear Reductions Worldwide

Exchange and confirm data on weapons materials inventories. Monitor nuclear warhead production and expedite dismantlement of excess weapons under bilateral agreements. Conduct reciprocal bilateral inspections of nuclear components and materials. Implement the purchase agreement of the 500 metric tons of highly enriched uranium (HEU) from dismantled former Soviet Union warheads. Work to reduce weapons inventories.

Goals:	FY 1996 Results:
Implementing the draft agreement with Russia initialed in November 1995 and implementing transparency measures for the Ural Electrochemical Integrated Enterprise (UEIE) and the Portsmouth Gaseous Diffusion Plant.	*During FY 1996, the U.S. and Russian officials conducted very successful monitoring visits to facilities in each country. The U.S. opened the UEIE Permanent Presence Office in Novouralsk, Russia.*
Finalizing annexes to the agreement with Russia.	*At the Fourth Session of the Transparency Review Committee in Vienna, Austria, in April 1996, the U.S. and Russia finalized all remaining HEU transparency annexes. Comprehensive transparency measures are now in place.*
Before the 6th Gore/Chernomyrdin Commission meeting, resolving issues of timely payment to Russia for the natural uranium used to convert the HEU into low enriched uranium (LEU).	*Passage of the United States Enrichment Corporation (USEC) Privatization legislation has, in large part, resolved the issue of allowing a substantial portion of the natural uranium component from the Russian LEU project deliveries to enter the U.S. market, allowing the Russians to receive revenues from the sale of the natural uranium.*
Supporting White House efforts to obtain Congressional approvals for Presidential authority to waive anti-	*The Department supported White House efforts to include language in the USEC Privatization legislation that*

dumping duties against uranium imported into the U.S. under the HEU Purchase Agreement.

would have waived anti-dumping duties against uranium imported into the U.S. under the Russian HEU Purchase Agreement. Although the language was not included in the final USEC Privatization Act, the act did help resolve other uranium importation issues.

Obtaining the low enriched equivalent of 12 metric tons of HEU.

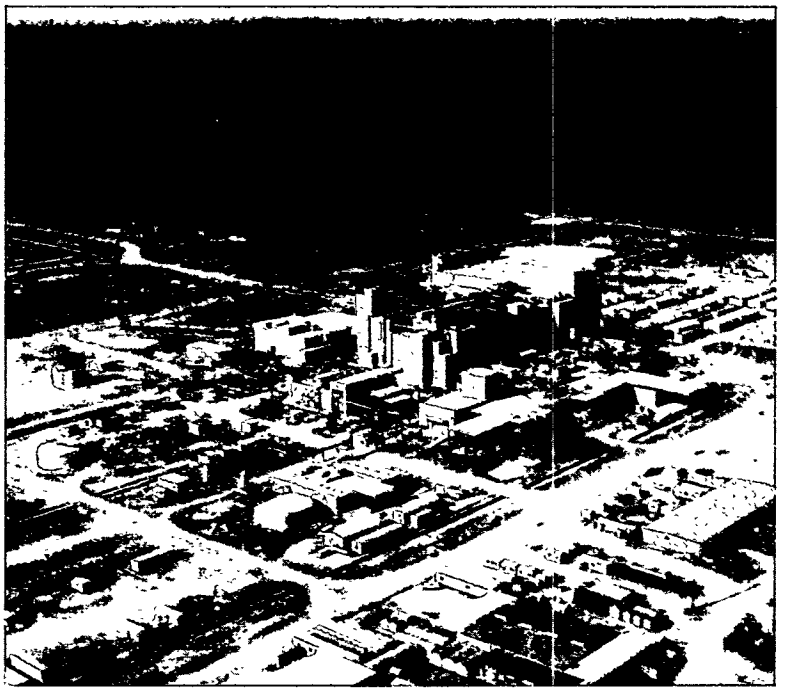
The low enriched equivalent of 12 metric tons of HEU has been delivered from Russia to the U.S.

Environmental Quality

Restore, Stabilize, Protect, and Enhance the Environment

The Department needs to understand and reduce the environmental, safety, and health risks and threats from operations and to develop the technologies and institutions required for solving domestic and global environmental problems. The Department's six priorities are to: address urgent risks; assure worker safety; assume managerial and financial control; obtain on-the-ground results; focus our technology development; and involve the public in our decisions. Reducing urgent risks from unstable plutonium, corroding spent nuclear fuel and targets, and high-level waste tanks will remain our highest priority. We will continue to get more cleanup results through the changes we have made in the way we do business.

Public involvement is helping us to make economically acceptable decisions on how our program is to move forward. Our budget "work out" sessions are bringing the Department together with the Federal and State regulators to find more cost-effective ways to meet our commitments and modifying existing compliance agreements as necessary to conform with budget constraints.



The Defense Waste Processing Facilty at the Savannah River Site converts high-level radioactive waste into borosilicate glass through a process called vitrification.

Understanding and Dealing with the Risks

Utilize newly developed information to maximize risk reduction and risk prevention associated with environmental problems resulting from nuclear weapons production during the Cold War.

Goals:
Completing the sampling, analysis, and characterization of 25 high-level radioactive waste tanks at Hanford.

FY *1996 Results:*
The Department has completed sampling, analysis, and characterization on 40 high-level radioactive waste tanks

	at Hanford, and 40 characterization reports have been received and accepted by the Department.
Finishing an analysis of DOE "materials in inventory," including a path forward for at least 10 material types, including lithium, chemicals, and weapons components.	*The Department has completed an analysis of DOE "materials in inventory" and published a report in January 1996, "Taking Stock: A Look at the Opportunities and Challenges Posed by Inventories from the Cold War Era." Efforts are underway to address recommendations in the report and implement changes early in FY 1997.*
Submitting to Congress in May 1996 an updated Baseline Environmental Management Report (BEMR) that will improve the accuracy of cost data over the 1995 report. This report will analyze the long-term cost impact of delaying or accelerating funding rates.	*The Department has also released an updated version of the BEMR in May 1996 that gives an improved estimate of costs and shorter schedules for cleanup than last year's report.*

Reducing the Risks; Cleaning up Nuclear Weapons Sites

Reduce environmental, safety, and health risks by cleaning up DOE sites.

Goals:	*FY 1996 Results:*
Completing 120 environmental cleanup actions.	*The Department has completed 272 environmental cleanup actions in 16 states, consisting of 157 final remedial actions and 115 interim actions.*
Stabilizing 250 kg of plutonium residues and solutions at the Hanford and Savannah River sites.	*The Department exceeded expectations and stabilized 482 kg of plutonium residues and solutions. This includes 99 kg of plutonium solutions at Savannah River and 2 kg of plutonium solutions plus 381 kg of plutonium residues at Hanford.*
Finishing 12 decommissioning projects and 154 Uranium Mill Tailings Remedial Action (UMTRA) property clean-ups. (Targets were revised to 43 decommissioning projects and 137 vicinity property remedial action projects at both Formerly Utilized Sites Remedial Action Program and UMTRA sites.)	*The Department has completed 47 decommissioning projects and 163 vicinity property remedial actions.*
Treating and/or disposing of more than 3 million cubic meters of DOE waste, including starting up vitrification of high-level radioactive waste at the Defense Waste Processing Facility in Savannah River by December 1995 and at the West Valley Demonstration Project by March 1996.	*The original waste disposal goal may have been derived from all the DOE legacy waste in inventory and ongoing operations as stated in the Baseline Environmental Management Report or the vast quantity of waste water that is cleaned and returned to the environment. Through FY 1996, the Department tracked performance against a baseline inventory of 348,211 cubic meters. During FY 1996, 12,865 cubic meters of high-level waste (HLW) were reduced from DOE's waste inventory. The FY 1996 ending inventory is 346,137 cubic meters. The Defense Waste Processing Facility began radioactive waste processing in March 1996, and the West Valley Demonstration Project received authorization to begin processing radioactive high-level waste in June 1996. A total of 89 canisters of vitrified radioactive high-level waste have been filled at these facilities.*

Finding Solutions to Spent Nuclear Fuel Storage and Funding Issues

Refocus the Civilian Radioactive Waste Management Program to provide meaningful deliverables that are consistent with reduced funding and revised policies.

Goals:

Issuing by March 1996 a revised program plan to determine the suitability of the Yucca Mountain site.

FY 1996 Results:

A May 1996 revised program plan aligns future activities and milestones with the Department's FY 1997 budget request and with Congressional guidance received in the FY 1996 appropriations legislation.

Preparing a plan by September 1996 that identifies the steps to ensure an aggressive start on interim storage of spent fuel should enabling legislation be enacted.

The steps necessary to ensure an aggressive start on the interim storage of spent fuel have been incorporated in the program plan.

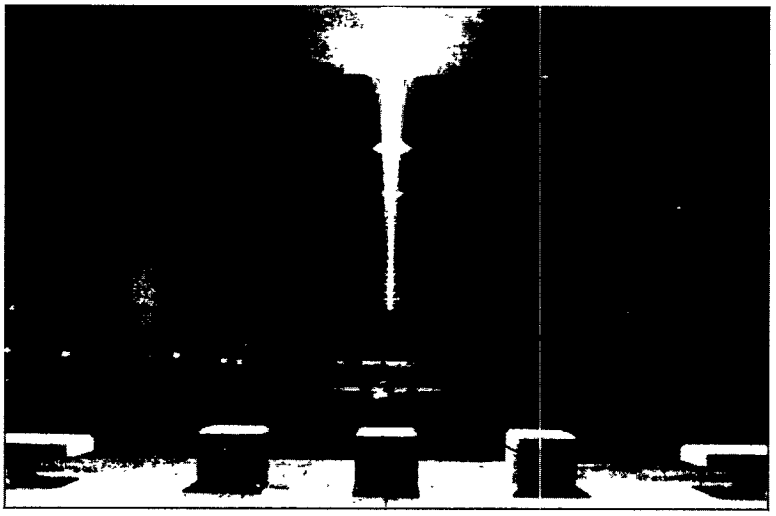
Completing, by March 1996, 2.5 miles of the exploratory tunnel and beginning two test alcoves in the potential repository formation at Yucca Mountain.

The Department exceeded set performance goals by boring more than four miles of the exploratory tunnel and completing work on four test alcoves.

Energy Resources

Develop and Promote Clean Efficient Energy Technologies and Enhance Energy Security

The Department will encourage efficiency and advance alternative and renewable energy technologies; increase energy choices for all consumers; assure adequate supplies of clean, conventional energy; and reduce U.S. vulnerability to external events. Departmental research and development programs are part of the nation's investment in our energy future. The work covers a broad spectrum of energy forms and technologies intended to make production and utilization of all forms of energy, including renewables, fossil, and nuclear, more efficient and environmentally benign.



The sulfur lamp installation outside of DOE's Forrestal Building produces 4 times as much light at 1/3 the cost of conventional lighting.

Energy research and development has resulted in important gains in energy efficiency and fuel substitution that counteract the nation's reliance on oil imports. It has also yielded technologies that allow us to produce and use conventional fuel resources more efficiently and with significantly less environmental impact. The work will improve the energy outlook for future generations. Protecting and enhancing environmental quality is a vital aim of the Administration's energy policy. The Department plays a major role in implementing the Climate Change Action Plan through voluntary programs and partnerships.

These strategies and the successes they are producing for future energy security are backed up by vigorous leadership in the International Energy Agency to develop and maintain effective, coordinated response measures to deter and mitigate near-term energy supply threats. This leadership, backed up by a system of strategic energy reserves held by the member nations, provides an effective security environment for the orderly development of sufficient, efficient, and environmentally benign energy forms and technologies for the future.

Transferring Proven Energy Efficiency Measures

Apply energy efficiency measures to buildings and operations to reduce government energy consumption by 30 percent by 2005, save low-income residents over $10 million in annual energy costs, and reduce energy consumption by one quad by the turn of the century.

Goals:	*FY 1996 Results:*
Adding six new major Energy Savings Performance Contracts, including an innovative government-wide contract to make it simpler, cheaper, and faster for government agencies to save energy.	*The Department has seven new major Energy Savings Performance Contracts underway.*
Applying the 15 energy and money saving technologies used in the "Greening of the White House" to three additional showcase buildings and existing Federal facilities. Adopting these technologies will save taxpayers and their Federal agencies $50 million in energy costs in 1996, 10 percent from DOE facilities, and attract double the current private investment for new Federal facility energy projects, accumulating $60 million by year's end.	*The 15 energy and money saving technologies are being applied at the Pentagon, Presidio, Forrestal building, and Yellowstone Park. Federal energy cost savings greatly exceeded targets. These technologies added $40 million in private sector investment commitment, exceeding our target by $10 million.*
Weatherizing 83,300 more low income homes, for a total of 4.4 million homes, which will save those residents a total of $450 million in energy costs every year.	*The Department weatherized over 56,000 homes as a result of the delayed passage of a smaller budget. This performance conducted under a smaller budget is equivalent to the number of homes projected with a fully funded budget.*

Developing Renewable Domestic Energy

Advance renewable energy development through cost-shared industry, laboratory, and DOE partnerships.

Goals:	*FY 1996 Results:*
Developing the U.S. renewable industry through $400 million of foreign and domestic sales.	*The Department estimates that developments in the U.S. renewable industry have fostered over $600 million in foreign and domestic sales for renewable energy projects, far surpassing the target. This represents over 400 megawatts of renewable energy installations.*
Showcasing 25 energy efficiency and renewable energy technologies at the 1996 Summer Olympic Games in Atlanta to over 2 million visitors and 3 billion viewers.	*Twenty six efficiency and renewable energy technologies were demonstrated at the 1996 Summer Olympic Games.*
Attracting $100 million of private sector investment to cost share our research and development in renewable technologies.	*Private sector investments totaled $85 million. Extended negotiations on one major contract, expected to be more than $15 million, delayed award to FY 1997.*

Providing a New Option to Supplement the Nation's Liquid Fuels

Provide the nation by 2005 with an alternative source of liquid fuels, costing $25 per barrel or less, that can be produced from coal and solid wastes.

Goal:
Completing an initial series of laboratory-scale baseline tests that verify the potential for significantly reducing the cost of producing liquid fuels by processing coal with plastics, rubber, or other solid wastes.

FY 1996 Results:
Research is being conducted at the Consortium for Fossil Fuel Liquefaction Science (U. of Kentucky, U. of Pittsburgh, West Virginia U., Auburn U., and the U. of Utah), Hydrocarbon Technologies, Inc., CONSOL, Inc., and the Pittsburgh Energy Technology Center. Preliminary economic analysis performed by MITRETEK indicates economic promise with plant sizes at 10,000 barrels per day and larger. While early results demonstrated feasibility, process studies were needed to establish reaction conditions that could produce high-conversion at steady-state when "real" waste materials were used. Baseline tests have been conducted. Results using tire rubber, mixed plastic waste, and coal have been successful, having confirmed the preliminary economic analysis which showed that coal/waste processing has the potential to produce coal derived-liquid fuels at about $21 per barrel in plants integrated into existing refineries. Process work will continue to firm up the database and to find cheaper approaches that could be economic at smaller-scale. A Sources Sought announcement has been issued to define stakeholders and their interests in this research area. Responses received so far indicate interests from waste managers, technology developers, and potential project sponsors.

Implementing the Climate Change Action Plan

Support the President's Climate Change Action Plan to reduce carbon emissions by over 23 million metric tons, produce $15 billion in energy savings, and stimulate $20 billion in industrial investment by the year 2000.

Goals:
Increasing sales of the most energy efficient appliances and building equipment by $50 million this year through eight industry collaboratives and four of the biggest national appliance retailers. This program, Energy Saver, will save enough energy to eliminate 8 million metric tons of carbon by 2000.

FY 1996 Results:
The Department achieved the equipment sales objective of $50 million this year.

Tripling industry Climate Wise commitments to voluntarily reduce carbon emissions by adding 100 additional industrial companies and two new Climate Wise Trade Associations. Our industrial partners are improving their competitive position by recycling, eliminating waste, and saving energy; enough to reduce carbon emissions by 4 million metric tons by 2000.

The Department added 120 Climate Wise partners, bringing the number of partners to 150.

Awarding 16 new National Industrial Competitiveness Through Energy, Environment, and Economics (NICE^3) grants to industry and government cost-shared projects that will demonstrate new cost-effective clean energy technologies, attracting five investor dollars for every

The Department awarded and implemented 16 new NICE^3 grants for $7 million in projects in 14 states.

Federal dollar and reducing our year 2000 carbon emissions by nearly 2 million metric tons.

Implementing our 21 new Showcase national partner demonstration projects for electric motor drives and systems in our Motor Challenge program, saving businesses $4 million this year and taking more than 5 million metric tons of carbon out of the air by the year 2000.

The Department continued implementation of 18 Showcase partnership demonstration projects (3 companies dropped out) and initiated 12 new demonstration projects. During FY 1996, completed projects saved $1.2 million, and 20 continuing projects are on track to save $2-3 million.

Nearly doubling the community and regional partnerships to improve commercial building energy efficiency. The 90 Rebuild America partnerships - 40 are new this year - attract an average of $30 of private investment for every public dollar. By the year 2000, the buildings adopting the Rebuild energy savings practices will save their communities over $2 billion and take over 1 million tons of carbon out of the air.

During FY 1996, the partnership goal was met by adding 55 new partners and retrofitting commitments for 200 million commercial square feet and 50,000 homes.

Adding 40 new utilities to our 108 Climate Challenge agreements to voluntarily reduce emissions. By the end of the year we will have 600 partner utilities that account for two-thirds of utility carbon emissions. We expect our utility partners to increase their ongoing energy saving programs enough to take an additional 7 million metric tons of carbon out of their service areas by the year 2000.

The Department now has 630 utility Climate Challenge partners, exceeding the partner goal. Utility partners remain committed to take an additional 7 million metric tons of carbon out of their service areas by the year 2000.

Economic Productivity

Stimulate U.S. Economic Productivity

Atlantic-Pacific Technologies, Inc., a U.S. firm, signs a contract to develop a renewable energy hybrid systems manufacturing plant with Wagner Systems, a South American company, as the former Secretary of Energy Hazel O'Leary and the former South African Minister of Mineral and Energy Affairs Pik Botha observe.

The Department will promote sustained economic growth and the creation of high-wage jobs through research and development partnerships with industry and other Federal agencies. The Department will put the vast scientific and technological assets of its laboratories and facilities to the best use in advancing the U.S. position in a global market that is becoming increasingly competitive. This business line is crosscutting in nature, as it reaches across multiple organizational missions, funding levels, and activities. As a result, this business line is incorporated within the other four business lines when displaying various financial information.

Increasing U.S. Energy Technology and Exports and Investments

Stimulate sales of U.S. energy technology and capital investments in countries with large, emerging markets. Diversify world wide supply through targeted support for U.S. industry efforts to invest in new oil and gas supplies and energy efficiency and renewable technologies.

Goals:	*FY 1996 Results:*
Promoting the U.S. renewable industry in fostering foreign and domestic sales of $400 million and foreign sales agreements representing $1.5 billion in sales.	*The Department estimates that efforts in promoting the U.S. renewable industry have fostered over $600 million in sales of foreign and domestic renewable energy projects.*
Removing barriers to U.S. companies in coal technology export and efficiency and renewables markets, including those in China, Brazil and other developing countries that will use coal, by: - *establishing U.S. and foreign partnerships; and* - *providing technical expertise to multilateral and regional financing institutions in evaluation of finance applications.*	*The Department's ongoing communications have encouraged China to strongly consider use of efficient clean coal technologies with improved environmental performance. A wider acceptance of larger scale fluidized bed combustion in China has resulted from continued information exchange. Interaction with the Asian Development Bank has resulted in their interest in financing the use of the integrated coal gasification combined cycle technology in China. The Department has held successful workshops on Coal Fires and Clean Coal Technology and on Fossil Fuel Power Generation and Clean Application. These workshops have resulted in reverse trade missions relating to clean coal technologies, more efficient energy producing tecnologies, and the purchase of a U.S. fluidized bed combustor by the Brazilians.*
Initiating a forum, similar to that done for the Western Hemisphere, for Arctic oil and gas practices with the Russian producing associations.	*DOE has identified candidates for a joint experts group. The Russian Government has proposed, and the U.S. has agreed to hold a workshop to facilitate a meeting of the experts group.*
Opening of oil, gas, energy efficiency, and renewable technology opportunities for U.S. companies by Ukraine.	*Following major changes in the Ukrainian Government, DOE participated in an oil and gas investment conference held by the Ukraine in October 1996. A binational meeting between the U.S. and Ukraine was also held in October 1996 on coal and power sector reforms, domestic oil and gas development, and energy efficiency and included a dialogue on opportunities for U.S. investment and technology export.*

Critical Success Factors

The Department has adopted total quality management principles to improve overall effectiveness and reduce costs. In efforts to realize the Department's mission and exceed customer requirements, the Department has focused on the following four critical success factors.

Communication and Trust

Improve Communication and Trust

This factor examines how we communicate information and build trust within the Department and with our stakeholders and customers. This is especially important with our post-Cold War missions in the environment of openness, communication, and trust.

Making More Information Available to the Public

Declassify information under the Atomic Energy Act and Executive Order 12958, reduce the volume of new information classified, and make information more accessible.

Goals:	*FY 1996 Results:*
Reviewing 440,000 documents for possible declassification.	*The Department reviewed 620,000 documents in classified collections for possible declassification during FY 1996.*
Completing a survey of classified DOE records for declassification and making public a list of records reviewed.	*The Department has completed a survey of classified records. The records database will be available to the public in 1997.*
Completing declassification and release of 15 percent of historically significant national security information records 25 years old and older.	*The Department exceeded the goal by successfully completing the declassification of 19 percent of the collections containing 25 year old or older permanently valuable national security information for release, pending final archival processing.*
Issuing the final report on Fundamental Classification Policy Review and implementing its recommendations for declassifications.	*A report has been completed; however, discussion and coordination for implementation of recommendations are being held with the Department of Defense.*
Making available on the Internet a list of unclassified documents on Human Radiation Studies	*The inclusion of unclassified data on Human Radiation Studies was substantially completed in October 1996. 250,000 pages of data are now accessible.*

Human Resources

Increase Productivity of DOE's Human Resources for Our New Mission

This factor examines how we recruit, train, and develop; reward performance; motivate; and promote diversity within our workplace. The Department aims to create an environment where teamwork, trust, openness, pride, and respect are standard practices, and excellent performance is rewarded. Additionally, the Department aims to provide meaningful work opportunities and implement innovative compensation and personnel initiatives to attract and retain a diverse and well-trained workforce capable of carrying out the Department's mission.

Ensuring Workforce Diversity

Recruit, hire, and retain a diverse workforce and assure that DOE contractors achieve diversity.

Goals:	*FY 1996 Results:*
Maintaining diversity achievements during downsizing in FY 1996.	*During FY 1996, the DOE permanent workforce decreased by 1,146 (6.52 percent) from 17,587 to 16,441. The percentage of minorities and women decreased by 0.15 percent, from 47.94 percent to 47.79 percent.*
Developing and implementing diversity strategies at all DOE field sites.	*Strategic Diversity Plans were received from 17 of 22 headquarters elements and 13 of 18 field elements.*
Implementing the DOE strategic diversity plan at five additional sites.	*Developed and implemented a Diversity Program Monitoring System to measure the Department's success in recruiting, hiring, and retaining a diverse workforce*

	during the strategic alignment process. Conducted a DOE Contractors Diversity Conference at Chicago Operations Office during June 4-5, 1996. Developed Diversity Partnership Statement and strategies for implementation at contractor organizations. Conducted quarterly conferences with DOE diversity program managers at different field sites. Operations offices are responsible for monitoring contractor activities in the areas of affirmative action and equal employment. This monitoring activity includes the review of formal complaints filed against contractors with enforcement agencies to identify systemic issues.

Improving Human Resource Practices

Develop techniques for ensuring management success in achieving performance goals critical to realizing the Department's mission.

Goals:	*FY 1996 Results:*
Implementing "360 Degree" performance feedback for all Senior Executive Service (SES) employees by collecting input from supervisors, peers, subordinates, and customers and by obtaining input for all career SES employees during FY 1996.	*Training on the SES performance appraisal system process was conducted in February and March 1996. SES employees received "360 Degree" feedback as part of their overall performance appraisals via mid year progress reviews in May 1996.*
Beginning to implement the "360 Degree" process for non-SES supervisors and managers by March 1996.	*Thirteen of DOE's 20 principal field organizations and one Headquarters organization have implemented or are planning to implement "360 Degree" feedback systems that cover all categories of employees.*
All managers receiving appropriate quality training by June 1996 and promoting training for their staffs.	*As of the end of FY 1996, the Department has provided quality training to 871 senior managers through the Executive Leadership Forum training effort. This training consisted of Covey training, "The Seven Habits of Highly Effective People," "Leaders for a Customer-Driven Organization," and other quality training sponsored by the Department.*
Establishing pilot partnership programs to reengineer how personnel services are delivered to customers, with a goal of reducing processing times of typical personnel services by 25 percent.	*Effective partnerships have been established with two headquarters offices for the purposes of sharing resources and reducing processing times of personnel actions by as much as 50 percent.*

Environment, Safety, and Health

Achieve Excellence in the Safety and Health of DOE Workers, the Public, and the Environment

This factor examines how the Department ensures safety and health of workers and the public and how it protects and restores the environment. The Department continues to shift from a reactive approach to an emphasis on prevention and excellence in protecting worker and public safety and health and in achieving environmental standards. The Department has opened its records related to environment, safety, and health and provided stakeholders easy access to the information.

Incorporating the Existing Risk-Based Planning and Budgeting Process into All Major Contracts

By September 1996, incorporate the risk-based environment, safety, and health planning and budgeting process into all new major contracts and those that are scheduled for renewal.

Goal:
Inclusion of strong and effective environment, safety, and health provisions in six major contracts.

FY 1996 Results:
The Department has included strong, effective environment, safety, and health provisions in eighteen major contracts.

Implement the "Necessary and Sufficient Closure Process" to Ensure Safe Operations in a Streamlined Environment

Identify and implement standards appropriate for work being done that will provide for the health and safety of workers, the public, and the environment.

Goal:
Success will be measured by completing nine pilot projects initiated in FY 1995 and beginning the full implementation of this process into the Department's operations by February 1996

FY 1996 Results:
The Department has successfully completed nine WorkSmart Standards pilot projects which have resulted in a renewed focus by the Department on the relationship between work, the hazards associated with the work, and standards tailored to that work. An additional 15 projects are currently underway.

Management Practices

Become the "Best In Class" in the Use of Management Practices

This factor examines how the Department allocates, spends, and accounts for resources and procures, produces, and contracts for goods and services. The Department is adopting "Best in Class" management practices in conjunction with our mission by meeting or exceeding customer expectations, by empowering and enabling people to be results-oriented and cost-effective, and by contributing to the Administration's deficit reduction objectives. The Department is also taking an integrated approach to managing headquarters, field, and contractor operations that focuses on performance.

Aligning the Department to Save Money and Enhance Performance

Implement the Strategic Alignment Initiative through office consolidations, business process re-engineering, and elimination of non-essential activities.

The Department has undertaken a major organizational transformation through a deliberate and phased strategy that will significantly improve the efficiency of our operations and promote a forward thinking approach to meet future challenges and commitments. This major initiative started with the creation of our Strategic Plan that redefined our business lines and core missions and continues with the implementation of the Secretary's Strategic Alignment Initiative to achieve $1.7 billion dollars in savings over a five year period. The Department's implementation of this initiative will provide better, more cost-effective means of performing the core missions as defined in the strategic plan.

Early on, the Department's leadership realized that Strategic Alignment would never be a complete success unless it was reported and publicized to a wide audience, including DOE employees and the Congress. Special emphasis was placed on conservative, realistic estimates of the dollar savings resulting from the success of several key initiatives.

In an effort to arrive at accurate data at a reasonable cost, the savings tracking processes agreed to by the initiative champions and validated by the Strategic Alignment Support Team are somewhat different for each major initiative. In the case of support service contracting, for example, procurement data were used to compare FY 1996 obligations to an adjusted FY 1995 baseline. By contrast, the National Environmental Policy Act (NEPA) process savings are consensus estimates. This is because NEPA data are not separately reported in the Department's systems, and the new reengineered process makes comparison to a prior FY 1995 baseline inappropriate.

In summary, the Strategic Alignment Initiative savings data shown in this report represent the Department's best estimates of our successes. The credibility of the savings data was measured by the General Accounting Office (GAO) in a May 1996 report, *Energy Downsizing*. This report indicated GAO's acceptance of these methods sufficiently to state that the plans to achieve cost savings for FY 1996 appeared to be on track.

Goals:	*FY 1996 Results:*
Closing eight field offices and four headquarters locations and reducing 1,380 Federal staff positions from May 1995.	*Since implementing the Strategic Alignment Initiative in May 1995, the Department has closed eight field offices and five headquarters locations, saving more than $1.6 million. Federal staff positions were reduced by 1,836, resulting in a level of 12,221 positions at fiscal year end (actual on-board employees declined by 999 during FY 1996). This Federal staffing reduction exceeded the original staffing target set by the Strategic Alignment Initiative by 456 positions.*
Through process improvement, saving $90 million in support contracting, $49 million in information resource management, $35 million in Federal and contractor travel, and $6 million in NEPA compliance activities.	*End of fiscal year savings from support contracting - $184 million; information resource management - $88 million; Federal and contractor travel - $40 million; and while no accounting data exists specifically for NEPA compliance activities, the Department estimates that this goal has been met.*
Returning $15 million to the Treasury from the sale of surplus assets.	*$4.7 million was returned to Treasury; short of the $15 million goal. Several sales are still in progress.*

Becoming a World Class Quality Organization

Implement improvement action plans based on the results of the 1995 self-assessment. Conduct a 1996 self-assessment of DOE quality management practices using the President's Quality Award or Malcolm Baldridge National Quality Award Criteria.

Goals:	*FY 1996 Results:*
Implementing quality improvement action plans by January 1996 at all headquarters and field organizations and all headquarters and field organizations completing their annual quality self-assessment by September 1996.	*During FY 1996, 23 of 38 Departmental Elements completed a self-assessment. Implementation of long- and short-term action plans is progressing. Downsizing and reorganizations have delayed some assessments.*
Demonstrating continuous performance improvement at all headquarters and field organizations in 1996 as compared with the results of their 1995 quality baseline self-assessment.	*Numerous improvements have been identified and reported. Energy Quality Award scores increased from 279 in 1995 to 341 in 1996, a 22 percent increase. Between 1994-1996, external customer satisfaction increased from 73 percent to 85 percent; 24 DOE Teams received Vice President Gore's Hammer Award for improvement efforts and efficiencies; 9 major DOE Organizations received State Quality Awards; and 31 DOE Organizations received Energy Quality Awards. The levels of excellence highlighted by this recognition*

underscore the superb quality improvement gains throughout the Department.

By January 1996, completing the development of a system which aligns strategic and operational planning with strategic intent, ensures this planning drives resource allocation, involves regular evaluation of results, and provides feedback.

With the implementation of the DOE Strategic Management System in March 1996, DOE fulfilled its goal to develop a system that aligns strategic and operational planning with strategic intent, ensures this planning drives resource allocation, and provides for regular evaluation of results and feedback.

Message from the Acting Chief Financial Officer

Elizabeth E. Smedley

I am pleased to present the Department of Energy's first efforts to prepare consolidated financial statements and disclose our financial condition and the results of operations for Fiscal Year 1996. Previously, ten of the Department's subunits prepared audited financial statements for commercial type activities. These ten separate statements represented only about a quarter of the Department's activities and received unqualified opinions from the auditors in Fiscal Year 1995. Building on that experience, the Office of Chief Financial Officer has prepared the more comprehensive Departmental statements presented here in accordance with the requirements of the Office of Management and Budget, the Chief Financial Officers Act of 1990, and the Government Management Reform Act of 1994.

The Department of Energy has experienced extraordinary changes in the post-Cold War period, many of which significantly impact these financial statements. The downsizing of the defense complex is one example of these changes and has resulted in the write-down of asset values for many of the Department's weapons production facilities and the recognition of environmental liabilities related to legacy wastes generated from years of nuclear weapons production. These changes have challenged the Department in the field of financial management and have required the diligence, dedication, and effective use of all our resources to realize the greatest value for every taxpayer dollar spent and ensure no dollars are spent unwisely or improperly.

The Department is firmly committed to excellence in all aspects of financial management. Under the current Administration, the Department has begun the long journey to achieving total quality management in all of its administrative and scientific activities, business-type enterprises, and regulatory functions. This commitment is dramatically changing the way we do business. The Department, in embracing the total quality management concept, recognizes that our customers and employees are the most important resources and strives to actively involve those served in the planning and decision-making processes inherent to carrying out our mission.

Financial management within the Department, and the Federal government as a whole, is on the threshold of significant change. The need to significantly reduce the budget deficit severely limits the financial resources available to carry out Federal programs. Promoting efficiency and economy in the use of these resources is vital to achieving our national goals, and financial considerations have become an integral part of the decisional process in carrying out the Department's mission. The Department, like other Federal agencies, is currently faced with severe Congressionally imposed reductions in both funding and staffing. Downsizing, buyouts, and reductions in funding present extremely difficult challenges as managers and staff strive to do more with less. As a result, the Department must take advantage of all opportunities to significantly improve the efficiency of our operations and promote a forward thinking approach to meet our future challenges and commitments. Our current initiatives place the Department squarely on the path to realizing our operational and financial goals.

For example, in the area of financial management, the Department has initiated a concerted effort to consolidate nineteen field accounting offices into three financial service centers. The Department has selected the three financial service centers to be the Albuquerque Financial Service Center in New Mexico, the Oak Ridge Financial Service Center in Tennessee, and the Capital Accounting Center in the Washington, D.C. area. This consolidation of accounting activities will result in savings of $17.7 million and 61 full-time equivalents over the next five years. The projected savings resulting from the accounting consolidation will be realized from operational efficiencies, technological and process improvements, and the physical consolidation of activities that will further improve financial management throughout the Department.

Elizabeth E. Smedley

Elizabeth E. Smedley
Acting Chief Financial Officer

Financial Overview

This financial overview of the consolidated financial statements contains highlights of significant balances contained in the consolidated financial statements and related financial performance measures.

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

ASSETS - The Consolidated Statement of Financial Position reflects total assets of **$94.0** billion and primarily consists of the following:

Fund Balances with Treasury of **$10.9** billion consist primarily of appropriated funds to pay current liabilities and finance authorized purchase commitments.

Investments of **$6.4** billion consist primarily of monies managed for the Nuclear Waste Fund and the Uranium Enrichment Decontamination and Decommissioning Fund. Fees paid by owners and generators of spent nuclear fuel and high-level radioactive waste and fees collected from domestic utilities are deposited in the respective funds to pay current program costs, with excess funds invested in Treasury securities.

Accounts Receivable of **$5.4** billion consist of intragovernmental receivables of $688 million resulting primarily from reimbursable work performed for other Federal agencies and governmental receivables due from the public of $4.7 billion primarily for Nuclear Waste Fund and Uranium Enrichment Decontamination and Decommissioning Fund fees.

Stockpile Materials of **$39.5** billion consist of crude oil at the Strategic Petroleum Reserve and special nuclear materials. The Strategic Petroleum Reserve component of $15.2 billion represents the cost of 574 million barrels of crude oil stored in salt domes, terminals, and pipelines. The reserve provides a deterrent to the use of oil as a political instrument and provides an effective response mechanism should a disruption occur. The nuclear materials of $24.3 billion consist primarily of weapons and related components, including those in the custody of the Department of the Defense under Presidential Directive, and materials used for research and development purposes.

Property, Plant, and Equipment of **$22.0** billion includes over 120 million square feet of buildings located on over 2.3 million acres of land. The Department's property and equipment values have been adjusted to reflect the Department's changing mission (e.g. downsizing of the defense complex) and to be in compliance with applicable accounting standards and guidance. Of particular significance was the implementation of the Financial Accounting Standard Board (FASB) Emerging Issues Task Force Issue 90-8, *Capitalization of Costs to Treat Environmental Contamination*. This guidance requires the expensing of facilities and equipment that treat, store, or dispose of existing environmental wastes generated by past operations. This has resulted in a $4.6 billion write-down of facilities and equipment, of which $1.6 billion occurred during Fiscal Year (FY) 1996.

Regulatory Assets of **$7.2** billion are associated with the Department's power generation and management responsibilities. These regulatory assets represent the Bonneville Power Administration's (BPA) right to future revenues generated from non-Federal power generating projects in return for BPA's payment of debt issued to complete these projects.

LIABILITIES - The Consolidated Statement of Financial Position reflects Departmental liabilities totaling **$264.6** billion. The following significant liabilities represent funds or other resources that will be paid by the Department as a result of transactions or events that have occurred.

Deferred Revenues and Other Credits of **$8.4** billion primarily represent the amount of Nuclear Waste Fund revenues that exceed the Nuclear Waste Fund expenses. Nuclear Waste Fund revenues are accrued based on fees assessed against owners and generators of high-level radioactive waste and spent nuclear fuel and are recognized as costs are incurred for Nuclear Waste Fund activities.

Environmental Liabilities of **$228.9** billion represent the Department's obligation to correct the environmental damage done while researching, producing, and testing nuclear weapons. Facilities requiring cleanup include nuclear reactors, chemical processing buildings, metal machining plants, laboratories, and maintenance facilities where environmental contamination occurred as a result of their operation. The environmental legacy derived from the process of producing nuclear weapons includes thousands of contaminated areas and buildings and large volumes of waste and special nuclear materials requiring treatment, stabilization, and disposal. The Department's environmental liability also includes the cost of addressing existing wastes and those facilities that have been declared surplus, as well as the cost to decontaminate and decommission facilities still operating. This liability is also significant from a Government-wide perspective, in that it is one of the largest in the Federal government and is the primary reason for the deficit Net Position of **($170.5)** billion reflected on the Consolidated Statement of Operations and Changes in Net Position. Additionally, since this liability is substantially unfunded, it represents significant future funding requirements for the Department.

Pensions and Other Actuarial Liabilities of **$6.1** billion represent amounts which the Department promises to pay for specified benefits to contractor employees having approved defined benefit pension plans and postretirement benefits other than pensions. The Department has a unique contractual relationship with these contractor employees that makes the Department ultimately responsible for funding the defined benefit pension and postretirement benefit plans and any related liabilities. Defined benefit pension plans provide benefits, such as a percentage of the final average pay for each year of service, and postretirement benefits other than pensions which include predominantly postretirement health care benefits.

CONSOLIDATED STATEMENT OF OPERATIONS AND CHANGES IN NET POSITION

REVENUES AND FINANCING SOURCES - Total revenues and financing sources consist primarily of the following:

Appropriated Capital Used of **$19.9** billion represents the funds made available to the Department to perform its mission through congressional appropriations. These appropriations are recognized as financing sources at the time the related expenses are incurred and the assets are consumed in operations.

Revenues From Goods and Services Provided of **$6.3** billion consist of public revenues of $4.3 billion predominantly from the sale and transmission of electric power and the sale of oil from the Department's reserves and intragovernmental revenues of $2.0 billion from work done for others.

Other Revenues and Financing Sources of **$1.0** billion consist primarily of Nuclear Waste Fund fees assessed, revenues collected for the Federal Energy Regulatory Commission, and revenues recognized for the Petroleum Pricing Violation Escrow Fund.

EXPENSES - The revenues contained on the Consolidated Statement of Operations and Changes in Net Position are offset by expenses totaling **$33.9** billion, which primarily consist of the following:

Program Expenses of **$16.1** billion make up the majority of the Department's expenses and are categorized by business lines and explained in detail in the supplementary information provided after the Notes to the Financial Statements. The fifth business line, Economic Productivity, cuts across multiple organizational missions, funding levels, and activities and is therefore included within the other four business lines.

Program Expenses:	(in billions)
Energy Resources	$2.5
Science and Technology	$2.4
National Security	$4.4
Environmental Quality	$6.2
Business Line Total	**$15.5**
Management and Other	$0.6
Total	***$16.1***

Cost of Goods & Services Provided of **$5.2** billion represents costs incurred in generating the $6.3 billion of public and intragovernmental revenues from goods and services provided.

Unfunded Liability Adjustment of **$9.1** billion primarily consists of the net increase in unfunded environmental baseline estimates and liabilities for the disposition of excess nuclear materials.

More detailed explanations of these and other balances on the consolidated financial statements are included in the Notes to the Financial Statements.

Financial Performance Measures

Receivables Management

The Department fully supports the laws, regulations, and central agency initiatives for improving Federal credit management and debt collection. The Department's receivables fall into five major categories: petroleum pricing violations, power marketing sales, decontamination and decommissioning fund fees, nuclear waste disposal fees, and all other receivables as shown in **Chart 1**. As of September 30, 1996, the Department had $7.2 billion in outstanding debt due from the public and a related $2.5 billion allowance for uncollectible accounts. This debt due from the public consists of $4.7 billion in governmental receivables and $2.5 billion in custodial receivables, with related allowances for uncollectible accounts of $.2 billion and $2.3 billion, respectively. Of this $7.2 billion amount, approximately $3.2 billion (44 percent) was current (due within 12 months of the end of the reporting period), and $4.0 billion (56 percent) was noncurrent (not due within 12 months of the end of the reporting period). The Department's delinquent accounts receivable totaled $2.4 billion. Of these delinquent receivables, approximately $2.3 billion are from petroleum pricing violations. These petroleum pricing violations receivables are the result of consent agreements reached with individuals or firms that violated petroleum pricing regulations under the Emergency Petroleum Allocations Act of 1973. The majority of these receivables are in bankruptcy, or collection action is being taken by the Department of Justice. The Uranium Enrichment Decontamination and Decommissioning Fund and Nuclear Waste Fund receivables are supported by contracts and agreements with public utilities that have been authorized by legislation. For example, the Nuclear Waste Policy Act of 1982 requires the Department to assess fees against owners and generators of high-level radioactive waste and spent nuclear fuel to fund permanent disposal.

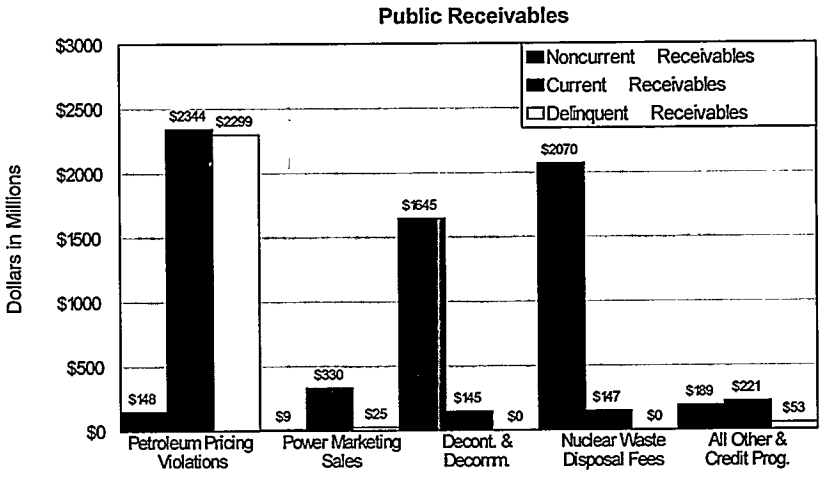


Chart 1

Prompt Payment

The Department's FY 1996 on-time payment performance percentage rate was 95 percent. This performance meets the Federal government goal set by the Office of Management and Budget (OMB). The Department has implemented its Quality Control Program at each payment center. During the past year, the Department served on a working group tasked to rewrite OMB Circular A-125, to streamline the Prompt Payment Standards, and to eliminate superfluous reporting requirements. **Chart 2** displays the Federal government's prompt payment goal and the Department's accomplishments for FY 1994, 1995, and 1996.

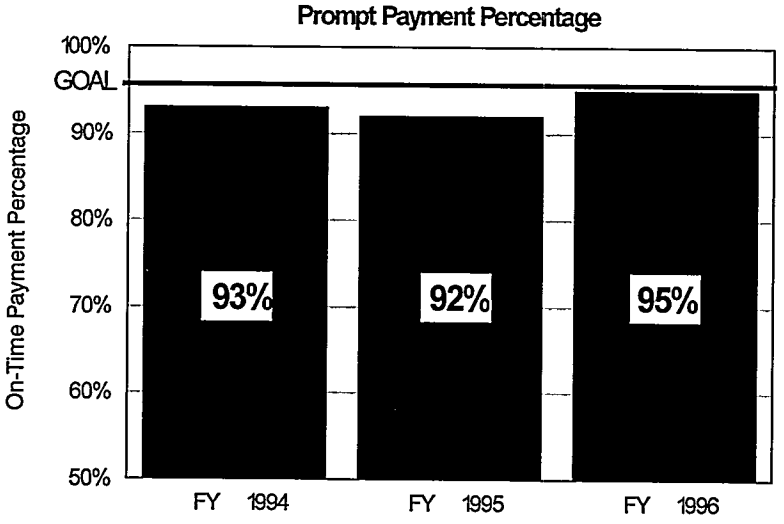


Chart 2

Chart excludes the Bonneville Power Administration.

Balances of Uncosted Obligations

Significant balances of uncosted obligations occur when a Federal agency contracts out much of its appropriated funds, as does the Department. These uncosted balances represent the portion of contract obligations related to goods and services which have not yet been delivered. While balances of uncosted obligations are natural and acceptable, concern is directed at agencies when excess uncosted balances are maintained. The Department's uncosted obligations are evaluated and considered in the budget formulation process. The General Accounting Office (GAO) recommended that controls be developed to ensure that the analysis of uncosted obligations be performed as part of the Department's financial management process. As reflected in **Chart 3**, the Department has taken aggressive actions to understand what drives uncosted obligation balances, control and reduce these balances, and more actively consider these resources when determining budget estimates. As a result of the GAO recommendations, a process improvement group developed new policy to improve the evaluation of the year-end carryover of uncosted obligated balances for FY 1996.

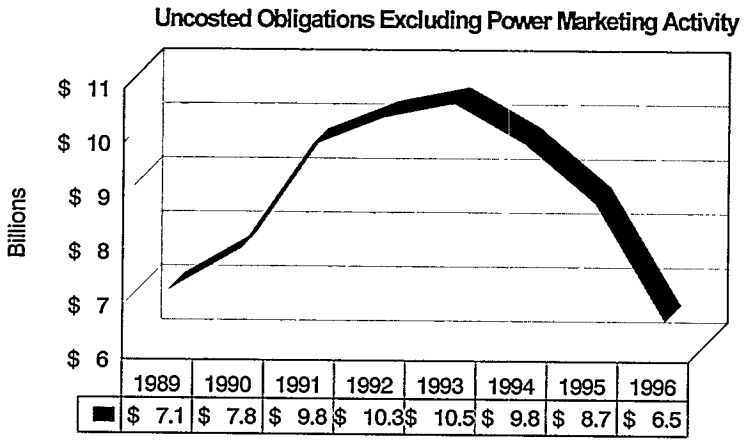


Chart 3

Electronic Funds Transfer

The Debt Collection Improvement Act of 1996 requires the use of Electronic Funds Transfer for all Federal payments made after January 1, 1999, with limited exceptions. The FY 1996 results portrayed in **Chart 4** demonstrate the Department's commitment to implementing the Governmentwide mandate to fully utilize Electronic Funds Transfer for salary payments.

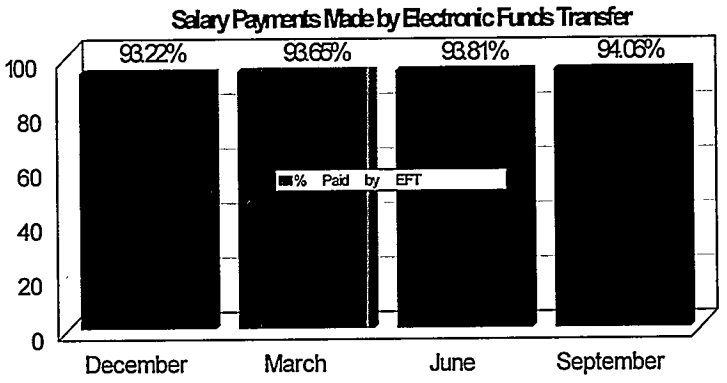


Chart 4

Chart excludes the Bonneville Power Administration.

Timeliness of Travel

The goal for average processing time from the receipt of a travel voucher to final payment of the travel voucher is 10 days or less, as established by OMB. As **Chart 5** shows, the Department has exceeded that goal and is currently working to improve the processing time for travel vouchers from the receipt to final payment to 3 days. The measure was included in the Chief Financial Officer Strategic Plan and demonstrates our commitment to improve customer service.

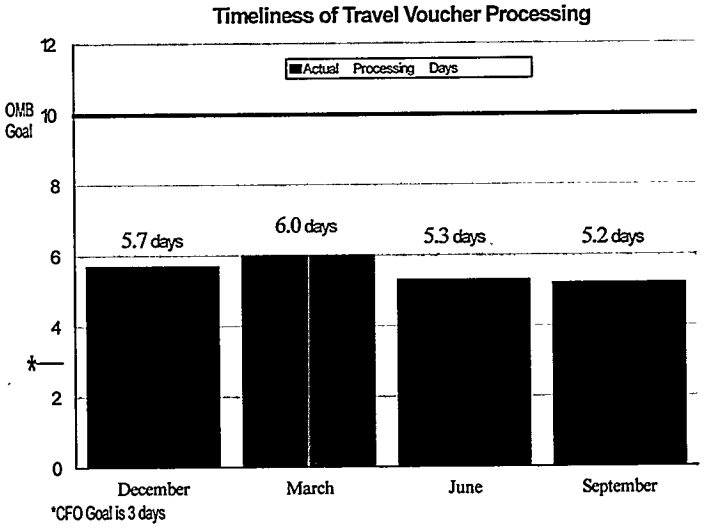


Chart 5

Chart excludes the Bonneville Power Administration.

Limitations to the Financial Statements

The financial statements beginning on page 40 have been prepared to report the financial position and results of operations of the Department of Energy, pursuant to the requirements of the Chief Financial Officers Act of 1990 and the Government Management Reform Act of 1994.

While the statements have been prepared from the books and records of DOE in accordance with the formats prescribed by the Office of Management and Budget, the statements are different from the financial reports used to monitor and control budgetary resources which are prepared from the same books and records.

The statements should be read with the realization that they are for a component of a sovereign entity, that liabilities not covered by budgetary resources cannot be liquidated without the enactment of an appropriation, and that payment of all liabilities other than for contracts can be abrogated by the sovereign entity.

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United States Government Department of Energy

memorandum

DATE: February 24, 1997

REPLY TO ATTN OF: IG-1

SUBJECT: INFORMATION: Report on "Audit of the Department of Energy's Consolidated Financial Statements for Fiscal Year 1996"

TO: The Acting Secretary

BACKGROUND:

The subject report is provided to inform you of the results of our audit.

DISCUSSION:

The Office of Inspector General audited the Department's Consolidated Statement of Financial Position as of September 30, 1996, and the related Statement of Operations and Changes in Net Position for the year then ended. In the opinion of the Office of Inspector General, these financial statements present fairly, in all material respects, the financial position of the Department as of September 30, 1996, and the results of its operations and changes in net position for the year then ended, in conformance with the basis of accounting described in notes to the statements.

In accordance with *Government Auditing Standards*, the Office of Inspector General also issued reports dated December 27, 1996, on our consideration of the Department's internal control structure and on its compliance with laws and regulations. Regarding the Department's internal control structure, additional efforts are needed to refine the process for estimating environmental remediation costs for the Department's active facilities. Additionally, the Department needs to fully integrate and provide adequate controls over financial management systems especially by integrating the Power Marketing Administrations into its Primary Accounting System. The Department also needs to strengthen its internal control system over property, plant and equipment.

The audit disclosed a number of other conditions relating to the Department's internal control structure that we did not consider to be reportable conditions and which did not materially affect the Department's financial statements. These matters will be communicated to the Chief Financial Officer and to heads of field elements in 11 separate management-level reports. The recommendations made in these reports are designed to strengthen internal controls or improve operating efficiencies.

The results of tests for compliance with selected provisions of laws and regulations disclosed no compliance matters reportable under *Government Auditing Standards* issued by the Comptroller General of the United States or OMB Bulletin No. 93-06, *Audit Requirements for Federal Financial Statements.*

FUTURE CHALLENGES TO THE DEPARTMENT:

Although the Department's Fiscal Year 1996 financial statements present fairly its financial position and results of operations, the Department faces challenges that could impact its future ability to produce accurate and reliable statements.

For example, the Department's unfunded environmental liability is one of the largest single liabilities in Government. The Department is faced with the challenge of periodically revising its environmental liability estimate in the face of major societal, technological, and resource uncertainties. The manner in which these uncertainties are eventually resolved could significantly affect the ultimate cost of the Department's environmental cleanup.

In Fiscal Year 1997 the Department will be further challenged with implementing a new financial accounting standard and meeting new financial management system reporting requirements. Specifically, the Department must adopt the new managerial cost accounting standard established by the Federal Accounting Standards Advisory Board. This standard will, among other things, require the Department to measure the full costs of its activities and report on those costs as part of its performance measurements. The Department will also have to comply with new Federal financial management system reporting requirements.

The Department continues to experience dramatic changes including significant staff reductions, budget restrictions, redirection of programs, redefinition of its relationship with contractors, and the adoption of performance-based contracts. Further, the Department, along with other Federal agencies, is committed to the establishment of a detailed series of performance measures to gauge its effectiveness and to assure accountability to the taxpayers. Such changes could have a significant effect on the Department's internal control environment. To address these issues, senior program managers must continue to be involved in the financial statement process to ensure that the statements accurately and reliably reflect their management of Government resources and the financial results of their program activities.

MANAGEMENT RESPONSE:

The Office of Chief Financial Officer concurred with the audit recommendations contained in the Department-level internal control report and has indicated that it will take corrective actions.

John C. Layton
Inspector General

Attachment

cc: Deputy Secretary
Under Secretary
Chief Financial Officer

REPORT OF THE OFFICE OF INSPECTOR GENERAL

The Acting Secretary
U.S. Department of Energy

We have audited the accompanying Consolidated Statement of Financial Position of the U.S. Department of Energy (Department) as of September 30, 1996, and related Consolidated Statement of Operations and Changes in Net Position for the year then ended. These financial statements are the responsibility of the Department's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards; *Government Auditing Standards* issued by the Comptroller General of the United States; and, Office of Management and Budget (OMB) Bulletin No. 93-06, *Audit Requirements for Federal Financial Statements*. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, the evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management as well as evaluating the overall presentation of the financial statements. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the U.S. Department of Energy as of September 30, 1996, and the results of its operations for the year then ended in conformity with the hierarchy of accounting principles described in Note 1.

Our audit was made for the purpose of forming an opinion on the Department's Consolidated Statement of Financial Position as of September 30, 1996, and related Consolidated Statement of Operations and Changes in Net Position for the year then ended. The information presented in management's *Overview* and the *Supplemental Financial and Management Information* sections is not a required part of the statements, but is supplementary information required by OMB Bulletin No. 94-01, *Form and Content of Agency Financial Statements*. We have considered whether this information is materially inconsistent with the above statements. Such information has not been subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we do not express an opinion on it. The performance information included in management's *Overview* is addressed in our auditors' report on the internal control structure prepared in accordance with OMB Bulletin No. 93-06.

MATTERS OF EMPHASIS

As described in Note 13, the Department's environmental remediation liability of $228 billion at September 30, 1996, is based on cost estimates that are highly uncertain. The uncertainty is due to the ranges of estimated costs associated with the environmental management program and with contaminated active facilities, potential additions to the disposition liabilities for excess plutonium and highly enriched uranium waste, the achievability of projected productivity savings, the potential impact of the Department's future plans and land-use decisions on remediation costs, the lack of complete information as to the extent of contamination, the uncertainty as to whether Congressional appropriations will be received at the levels anticipated in the estimate, potential cost increases caused by future inflation and natural resource damage claims, and the inherent uncertainty in long-term estimates.

The Department also is a party to various administrative proceedings, legal actions, and tort claims that may ultimately result in settlements or decisions adverse to the Government, as discussed in Note 16. The Office of General Counsel, in responding to our inquiries about these matters, was not able to form a conclusion as to the likely outcome or potential loss resulting from litigation, claims, and assessments against the Department. Readers of the Department's consolidated financial statements should, therefore, be aware that the statements may be affected by uncertainties concerning the outcome of claims described in Note 16 which are not currently susceptible to reasonable estimation.

REFERENCE TO OTHER REPORTS

In accordance with *Government Auditing Standards*, we have also issued a report dated December 27, 1996, on our consideration of the Department's internal control structure and a report dated December 27, 1996, on its compliance with laws and regulations.

Office of Inspector General

December 27, 1996 except as to Note 16, in particular the lawsuit filed on January 31, 1997, which is as of the date of the filing of the suit.

Consolidated Statement of Financial Position *(in millions)*
as of September 30, 1996

	1996
ASSETS	
Agency Assets	
Intragovernmental	
Fund Balance with Treasury (Note 2)	$10,911
Investments (Note 3)	6,402
Accounts Receivable (Note 4)	688
Governmental	
Investments (Note 3)	72
Accounts Receivable, Net (Note 4)	4,668
Stockpile Materials (Note 5)	
Strategic Petroleum Reserve	15,224
Nuclear Materials	24,264
Property and Equipment, Net (Note 6)	22,049
Regulatory Assets (Note 7)	7,197
Other Agency Assets	1,640
Total Agency Assets	$93,115
Custodial Assets (Note 8)	918
Total Assets	$94,033
LIABILITIES	
Liabilities Covered by Budgetary Resources	
Intragovernmental Liabilities	
Accounts Payable	$776
Debt (Note 9)	2,456
Appropriated Capital Owed to Treasury (Note 10)	3,797
Governmental Liabilities	
Accounts Payable (Note 11)	4,887
Debt (Note 7)	7,197
Deferred Revenue and Other Credits (Note 12)	8,417
Funded Environmental Liabilities (Note 13)	1,165
Total Liabilities Covered by Budgetary Resources	$28,695
Governmental Liabilities Not Covered by Budgetary Resources	
Environmental Liabilities (Note 13)	227,708
Pension and Other Actuarial Liabilities (Note 14)	6,135
Other Governmental Liabilities (Note 15)	2,041
Contingencies (Note 16)	
Total Liabilities Not Covered by Budgetary Resources	$235,884
Total Liabilities	$264,579
NET POSITION	
Unexpended Appropriations (Note 17)	5,841
Invested Capital	56,714
Cumulative Results of Operations	2,690
Future Funding Requirements	(235,791)
Total Net Position	($170,546)
Total Liabilities and Net Position	$94,033

The accompanying notes are an integral part of these financial statements.

Consolidated Statement of Operations and Changes in Net Position *(in millions)*
for the Fiscal Year Ended 1996

	1996
REVENUES AND FINANCING SOURCES	
Appropriated Capital Used	$19,907
Revenues from Goods and Services Provided (Note 18)	
Public	4,298
Intragovernmental	1,958
Interest	520
Other Revenues and Financing Sources (Note 19)	1,019
Less Receipts Transferred to Treasury & Other Agencies (Note 20)	(1,691)
Nuclear Waste Fund Deferred Revenue Adjustment (Note 12)	(962)
Total Revenues and Financing Sources	$25,049
EXPENSES	
Program Expenses	
Energy Resources	2,495
Science and Technology	2,417
National Security	4,377
Environmental Quality	6,215
Management and Other Activities	637
Cost of Goods and Services Provided (Note 18)	
Public	3,299
Intragovernmental	1,882
Depreciation	1,907
Other Expenses (Note 21)	1,621
Unfunded Liability Adjustments (Note 22)	9,051
Total Expenses	$33,901
Shortage of Revenues and Financing Sources Over Total Expenses	($8,852)
CHANGES IN NET POSITION	
Net Position, Beginning Balance, as Stated	($127,377)
Prior Period Adjustments (Note 23)	(30,422)
Net Position, Beginning Balance, as Adjusted	($157,799)
Non-Operating Changes	(3,895)
Excess (Shortage) of Revenues and Financing Sources Over Total Expenses	(8,852)
Net Position	($170,546)

The accompanying notes are an integral part of these financial statements.

1. Significant Accounting Policies

A. Basis of Presentation

These consolidated financial statements have been prepared to report the financial position and results of operations of the U.S. Department of Energy (DOE). They have been prepared from the books and records of DOE based on accounting principles and standards recommended by the Federal Accounting Standards Advisory Board. These accounting standards are generally accepted accounting principles for the Federal government and consist of a hierarchy of individual standards published by the Joint Financial Management Improvement Program, Office of Management and Budget (OMB), in OMB Bulletin No. 94-01, *Form and Content of Agency Financial Statements;* DOE accounting guidance; and accounting principles published by authoritative standard setting bodies.

B. Description of Reporting Entity

DOE is a cabinet level agency of the Executive Branch of the U.S. Government. DOE's headquarters organizations are located in Washington, D.C. and Germantown, MD and consist of an executive management structure that includes: the Secretary, the Deputy Secretary, and the Under Secretary; nine Secretarial staff organizations; and program organizations that provide technical direction and support for DOE's principal programmatic missions. DOE also includes the Federal Energy Regulatory Commission, which is an independent regulatory organization responsible for setting rates and charges for the transportation and sale of natural gas and for the transmission and sale of electricity and the licensing of hydroelectric power projects.

DOE has a complex field structure comprised of operations offices, field offices, power marketing administrations, laboratories, and other facilities. The majority of DOE's environmental cleanup, energy research and development, and testing and production activities are carried out by major contractors. These contractors operate, maintain, or support DOE's government-owned facilities on a day-to-day basis and provide other special work under the direction of field organizations.

These contractors have unique contractual relationships with DOE. In most cases, their chart of accounts and accounting systems are integrated with DOE's accounting system through a home office-branch office type of arrangement. Additionally, DOE is ultimately responsible for funding certain defined benefit pension plans, as well as post retirement benefits such as medical care and life insurance, for the employees of these contractors. As a result, these statements reflect not only the costs incurred by these contractors, but also include certain assets (i.e., employee advances and prepaid pension costs) and liabilities (i.e., accounts payable, accrued expenses including payroll and benefits, and pension and other actuarial liabilities) that would not be reflected in the financial statements of other Federal agencies that do not have these unique contractual relationships.

C. Basis of Accounting

Transactions are recorded on an accrual accounting basis and a budgetary basis. Under the accrual method, revenues are recognized when earned, and expenses are recognized when a liability is incurred, without regard to receipt or payment of cash. Budgetary accounting facilitates compliance with legal constraints and controls over the use of Federal funds. All material intra-agency balances and transactions have been eliminated in consolidation.

D. Revenues and Other Financing Sources

DOE receives the majority of the funding needed to perform its mission through congressional appropriations. These appropriations may be used, within statutory limits, for operating and capital expenditures. Appropriations are recognized as a financing source at the time the related operational or administrative expenses are incurred. Appropriations expended for property, plant and equipment are recognized as financing sources when the asset is consumed in operations. Revenues are recognized when earned (i.e., goods have been delivered or services rendered.) (See Notes 18 and 19)

E. Funds with Treasury and Cash

Funds with Treasury represent appropriated funds, trust funds, and revolving funds that are available to pay current liabilities and finance authorized purchase commitments. Cash balances held outside Treasury represent trust fund balances held in minority financial institutions, letter of credit collateral balances, and imprest cash amounts. (See Note 2)

F. Investments

Investments in Treasury securities for the Nuclear Waste Fund are classified as available for sale and are reported at fair value in accordance with Financial Accounting Standard No. 115, *Accounting for Certain Investments in Debt and Equity Securities.* All other DOE investments are reported at cost net of amortized premiums or discounts, as it is DOE's intent to hold the investments to maturity. Premiums or discounts are amortized using the effective interest method. (See Note 3)

G. Accounts Receivable, Net of Allowance

The amounts due for governmental (non-Federal) receivables are stated net of an allowance for uncollectible accounts. The estimate of the allowance is based on past experience in the collection of receivables and an analysis of the outstanding balances. (See Note 4)

H. Property, Plant and Equipment

Property, plant and equipment that are purchased, constructed, or fabricated in-house, including major modifications or improvements, are capitalized if they have an anticipated service life of 2 years or more and cost $5,000 or more. Costs of construction are capitalized as construction work in process. Upon completion or beneficial occupancy, the cost is transferred to the appropriate property account. Property, plant and equipment related to environmental management facilities processing DOE's environmental legacy wastes are not capitalized. (See Notes 6 and 23)

Depreciation expense is generally computed using the straight line method throughout DOE. The units of production method may be used only in special cases where applicable, such as depreciating automotive equipment on a mileage basis and construction equipment on an hourly use basis. The ranges of service lives are generally as follows:

Structures	25 - 40 years
ADP Software	5 - 20 years
Equipment	5 - 45 years

I. Liabilities

Liabilities represent funds or other resources likely to be paid by DOE as a result of a transaction or event that has already occurred. However, no liability can be paid by DOE absent an authorized appropriation. Liabilities for which an appropriation has not been enacted are, therefore, classified as unfunded liabilities, and there is no certainty that the appropriations will be enacted. Also, liabilities of DOE arising from other than contracts can be abrogated by the Government, acting in its sovereign capacity.

J. Accrued Annual, Sick and Other Leave

Employee annual leave is accrued as it is earned, and the accrual is reduced annually for actual leave taken and increased for leave earned. Each year, the accrued annual leave balance is adjusted to reflect the latest pay rates. To the extent that current or prior year appropriations are not available to fund annual leave earned but not taken, funding will be obtained from future financing sources. Sick leave and other types of nonvested leave are expensed as taken.

K. Retirement Plans

Federal Employees

There are two retirement systems for Federal employees. DOE employees hired prior to January 1, 1984 may participate in the Civil Service Retirement System (CSRS), to which DOE makes matching contributions equal to 7 percent of pay. On January 1, 1984, the Federal Employees Retirement System (FERS) went into effect pursuant to Public Law 99-335. Most employees hired after December 31, 1983, are automatically covered by FERS and Social Security. Employees hired prior to January 1, 1984, elected to either join FERS and Social Security or remain in CSRS. A primary feature of FERS is that it offers a savings plan to which DOE automatically contributes 1 percent of pay and matches any employee contribution up to an additional 4 percent of pay. For most employees hired since December 31, 1983, DOE also contributes the employer's matching share for Social Security. DOE does not report CSRS or FERS assets, accumulated plan benefits, or unfunded liabilities, if any, applicable to its employees. Reporting such amounts is the responsibility of the Office of Personnel Management and the Federal Employees Retirement System.

Contractor Employees

Most DOE contractors have a defined benefit pension plan under which they promise to pay specified benefits, such as a percentage of the final average pay for each year of service. DOE costs under the contracts include reimbursement of annual employer contributions to the pension plans. Each year, an amount is calculated for employers to contribute to the pension plan to ensure the plan assets are sufficient to provide for the full accrued benefits of contractor employees in the event that the plan is terminated. The level of contributions is dependent on actuarial assumptions about the future, such as the interest rate, employee turnover and deaths, age of retirement, and salary progression. (See Note 14)

L. Comparative Data

Comparative data for the prior year have not been presented because this is the first year for which DOE has issued financial statements on a consolidated basis. In future years, comparative data will be presented in order to provide an understanding of changes in DOE's financial position and operations.

M. Use of Estimates

DOE has made certain estimates and assumptions relating to the reporting of assets and liabilities and the disclosure of the contingent assets and liabilities to prepare these consolidated financial statements. Actual results could differ from these estimates.

2. Fund Balance with Treasury

(in millions)

	Obligated	-------Unobligated------- Unrestricted	Restricted	Investments in Treasury Securities	Total Fund Balances With Treasury
Agency Funds					
Revolving funds	($16)	$262	$3		$249
Appropriated funds	7,992	1,859	561		10,412
Special funds	271	107	5,652	($5,790)	240
Deposit funds			10		10
Total agency funds	$8,247	$2,228	$6,226	($5,790)	$10,911
Custodial Funds					
Trust funds	12				12
Special funds			3		3
Deposit funds			22		22
Total custodial funds	$12		$25		$37
Total funds in Treasury	$8,259	$2,228	$6,251	($5,790)	$10,948

The unobligated restricted funds primarily represent revenues that have been collected and are being held until such time that Congress appropriates the funds to DOE or directs DOE to return the funds to Treasury. The appropriated funds represent primarily revenues earned from the sale of oil prior to FY 1994 from the Naval Petroleum and Oil Shale Reserves which Congress has not made available to DOE. The special and deposit funds represent revenues from the Nuclear Waste Fund, Uranium Enrichment Decontamination and Decommissioning Fund, and the Petroleum Pricing Violation Escrow Fund.

3. Investments

(in millions)

	Cost	Market Value	Amortized (Premium) Discount	Investments Net
Agency Assets				
Intragovernmental Non-Marketable Securities				
Nuclear Waste Fund	$6,102	$5,897	($129)	$5,897
Uranium Enrichment D&D Fund	486	482	(2)	484
Great Plains Gasification Plant Trust Fund	21	21		21
Subtotal	$6,609	$6,400	($131)	$6,402
Governmental Marketable Securities				
Du Pont pension receipts	72	72		72
Total agency investments	$6,681	$6,472	($131)	$6,474
Custodial Assets				
Intragovernmental Non-Marketable Securities				
Petroleum Pricing Escrow Fund	394	397	3	397
Low Level Radioactive Waste Fund	4	4		4
Subtotal	$398	$401	$3	$401
Governmental Marketable Securities				
Petroleum Pricing Violation Escrow Fund	200	200		200
Total custodial investments	$598	$601	$3	$601
Total investments	$7,279	$7,073	($128)	$7,075

Pursuant to statutory authorizations, DOE invests monies in Treasury securities and commercial certificates of deposit which are secured by the Federal Deposit Insurance Corporation. DOE's investments primarily involve the Nuclear Waste Fund and the Uranium Enrichment Decontamination and Decommissioning (D&D) Fund. Fees paid by owners and generators of spent nuclear waste and fees collected from domestic utilities are deposited into the respective funds. Funds in excess of those needed to pay current program costs are invested in Treasury securities. DOE also has non-Federal securities resulting from an over funded pension plan of a former contractor and the 1988 sale of the Great Plains Coal Gasification Project to a private concern.

DOE custodial investments are primarily Petroleum Pricing Violation Escrow Fund receipts collected as a result of consent agreements reached with individuals or firms that violated petroleum pricing regulations during the 1970s. These receipts are invested in Treasury securities and certificates of deposit at minority financial institutions pending determination by DOE as to how to distribute the fund balance.

Except for the Nuclear Waste Fund, DOE's investments are valued at the amortized acquisition cost. The Nuclear Waste Fund investments are reported at fair value in accordance with Financial Accounting Standard No. 115, *Accounting for Certain Investments in Debt and Equity Securities*, which requires the valuation of investments at fair value when there is an intent to sell the securities prior to maturity. Based on past investment practices, the Nuclear Waste Fund's Treasury notes are routinely redeemed prior to maturity in order to maximize the return on the Fund's investments and minimize uninvested cash balances. As a result, the Nuclear Waste Fund's investment balance includes an unrealized holding loss of $76 million.

4. Accounts Receivable

(in millions)

	Receivable	Allowance	Net
Agency Receivables			
Intragovernmental			
Accounts receivable	$569		$569
Interest receivable	114		114
Advances	5		5
Subtotal	$688		$688
Governmental			
Nuclear Waste Fund receivables	2,216		2,216
Uranium Enrichment D&D Fund receivables	1,790		1,790
Power marketing administrations' receivables	339	($2)	337
Advances and prepayments	66		66
Credit program receivables	63	(26)	37
Other	346	(124)	222
Subtotal	$4,820	($152)	$4,668
Total agency receivables	$5,508	($152)	$5,356
Custodial Receivables			
Petroleum Pricing Violation Escrow Fund	2,492	(2,318)	174
Total receivables	$8,000	($2,470)	$5,530

Intragovernmental accounts receivable primarily represent amounts due from other Federal agencies for reimbursable work performed pursuant to the Economy Act, Atomic Energy Act, and other statutory authority. Interest receivable represents earned revenues on investments held in Treasury securities.

Governmental receivables represent amounts due primarily for Nuclear Waste Fund (NWF) and Uranium Enrichment Decontamination and Decommissioning (D&D) Fund fees. NWF receivables are supported by contracts and agreements with public utilities that contribute resources to the fund. D&D Fund receivables from public utilities are supported by public law. Other receivables due from the public include reimbursable work billings and other amounts related to trade receivables, overpayments, and other miscellaneous receivables.

Custodial receivables represent amounts due as a result of consent agreements reached with individuals or firms that violated petroleum pricing regulations during the 1970s. The majority of these receivables are with individuals or firms that are in bankruptcy, or collection action is being taken by the Department of Justice. Many cases handled by the Department of Justice will result in complete write-offs or settlement agreements for amounts significantly less than the original consent agreement. Allowance accounts have been established to reflect the realistic potential for recovery of amounts owed.

5. Stockpile Materials, Net

Stockpile materials consist of crude oil held in the Strategic Petroleum Reserve and nuclear materials. The Strategic Petroleum Reserve consists of 574 million barrels of crude oil stored in salt domes, terminals, and pipelines. The reserve provides a deterrent to the use of oil as a political instrument and provides an effective response mechanism should a disruption occur. Oil from the reserve may be sold only with the approval of Congress and the President of the United States. Congress authorized the sale of approximately 9.6 million barrels of oil from the reserve in FY 1997.

Nuclear materials include weapons and related components, including those in the custody of the Department of the Defense under Presidential Directive, and materials used for research and development purposes.

Stockpile materials are recorded at historical costs in accordance with Statement of Federal Financial Accounting Standard No. 3, except for certain nuclear materials which have been identified as surplus or excess to DOE's needs. These nuclear materials are recorded at their net realizable value.

6. Property, Plant and Equipment, Net

(in millions)

	Acquisition Cost	Accumulated Depreciation	Net Book Value
Land and land rights	$500	($4)	$496
Structures and facilities	28,859	(16,922)	11,937
ADP software	78	(63)	15
Equipment	16,035	(10,143)	5,892
Natural resources	11	(2)	9
Construction work in process	3,700		3,700
Total property, plant, and equipment	$49,183	($27,134)	$22,049

7. Regulatory Assets and Related Public Debt

DOE's power marketing administrations record certain assets in accordance with Statement of Financial Accounting Standards (SFAS) No. 71, *Accounting for the Effect of Certain Types of Regulation.* The provisions of SFAS No. 71 require that regulated enterprises reflect rate actions of the regulator in their financial statements, when appropriate. These rate actions can provide reasonable assurance of the existence of an asset, reduce or eliminate the value of an asset, or impose a liability on a regulated enterprise.

The Bonneville Power Administration (BPA) has acquired all or part of the generating capability of five nuclear power plants as well as several hydroelectric projects. The government's contracts with these utilities require BPA to pay all or part of the annual projects' budgets, including debt service, whether or not all the projects are completed. Because these projects' current and future costs can be recovered through BPA's electricity rates, the Statement of Financial Position includes a regulatory asset and related debt of $7,106 million for these contracts. BPA has also recorded a $91 million asset and related debt for the unpaid balance of its share of estimated decommissioning costs for Trojan's nuclear plant.

8. Custodial Assets

(in millions)

	Funds in Treasury	Investments	Accounts Receivable	Petroleum Reserve	Total
Petroleum Pricing Violation Escrow Fund		$597	$174		$771
Oil held in Strategic Petroleum Reserve for DOD				$106	106
Other custodial assets	$37	4			41
Total custodial assets	$37	$601	$174	$106	$918

Petroleum Pricing Violation Escrow Fund

Pursuant to the Emergency Petroleum Allocations Act of 1973, DOE is responsible for recovering oil pricing overcharges and making restitution to injured parties. Monies received are invested in Treasury securities and certificates of deposit with minority financial institutions pending disbursement to injured parties or returned to Treasury.

Oil Held in Strategic Petroleum Reserve for DOD

The FY 1993 Defense Appropriations Act authorized DOE to acquire, transport, store, and prepare for ultimate drawdown of crude oil for the Department of Defense (DOD). The crude oil purchased with DOD funding is commingled with DOE stock and is held for DOD's future use.

Other Custodial Assets

Other custodial assets include funds in various Treasury deposit and special receipt accounts which are not available to fund DOE's operations.

9. Debt (Intragovernmental)

To finance its capital programs, the Bonneville Power Administration is authorized to issue to Treasury up to $3,750 million of interest-bearing debt with terms and conditions comparable to debt issued by U.S. government corporations. A portion ($1,250 million) is reserved for conservation and renewable resource loans and grants. At September 30, 1996, $2,456 million of this debt was outstanding. The average interest rate of BPA's long-term debt exceeds the rate which could be obtained currently. As a result, the fair value of BPA's long-term debt, based on discounting future cash flows using rates offered by Treasury as of September 30, 1996, for similar maturities, exceeds carrying value by approximately $209 million. BPA's policy is to refinance debt that is callable when associated benefits exceed costs of refinancing.

10. Appropriated Capital Owed to Treasury

Appropriated capital owed to Treasury represents the balance of appropriations provided to DOE's power marketing administrations for construction and operation of power projects which will be repaid to Treasury. The amount owed also includes accumulated interest on the net unpaid Federal investment in the power projects. The Federal investment in these facilities is to be repaid to Treasury within 50 years from the time the facilities are placed in service or are commercially operational. Replacements to Federal investments are generally to be repaid over their expected useful service lives. There is no requirement for repayment of a specific amount of Federal investment on an annual basis.

Each of the power marketing administrations, except the Bonneville Power Administration, receives an annual appropriation to fund operation and maintenance expenses. These appropriations totaled $300 million in FY 1996. These appropriated funds are repaid to Treasury from the revenues generated from the sale of power and transmission services. To the extent that funds are not available for payment, such unpaid annual net deficits become payable from the subsequent years' revenues prior to any repayment of Federal investment. DOE treats these appropriations as a borrowing from Treasury, and as such, the Statement of Operations and Changes in Net Position does not reflect these funds as a financing source.

DOE's financial statements do not reflect the Federal investment in power generating facilities owned by the U.S. Department of Defense, Army Corps of Engineers; the U.S. Department of Interior, Bureau of Reclamation; and the U.S. Department of State, International Boundary and Water Commission. DOE's power marketing administrations are responsible for collecting and remitting to Treasury revenues resulting from the sale of hydroelectric power generated by these facilities.

11. Governmental Accounts Payable

(in millions)

Accrued payroll and benefits	$748
Accounts payable and other accrued expenses	3,230
Petroleum Pricing Violation Escrow Fund balance payable to injured parties	719
Contract holdbacks	56
Other	134
Total	$4,887

12. Deferred Revenues and Other Credits

(in millions)

Nuclear Waste Fund deferred revenues	$8,205
Advances	160
Petroleum Pricing Violation Escrow Fund	52
Total deferred revenues and other credits	$8,417

Nuclear Waste Fund revenues are accrued based on fees assessed against owners and generators of high-level radioactive waste and spent nuclear fuel and interest accrued on investments in Treasury securities. These revenues are recognized as a financing source as costs are incurred for Nuclear Waste Fund activities. Annual adjustments are made to defer revenues that exceed the Nuclear Waste Fund expenses. The FY 1996 deferred fee adjustment totaled $962 million.

13. Environmental Liabilities

(in millions)

Legacy wastes and surplus facilities:	
FY 1996 BEMR mid-range estimate	$226,950
Adjustments:	
Additional decommissioning liability for Y-12 weapons plant	2,253
Portion attributable to future operations	(20,547)
FY 1996 legacy waste expenditures	(6,518)
Adjusted BEMR liability	$202,138
Dispositioning of excess plutonium	2,100
Dispositioning of excess highly enriched uranium waste	592
Deactivation and decommissioning of inactive naval reactors facilities	833
Nuclear Waste Fund disposal fees	1,071
Total legacy waste and surplus facilities liability	$206,734
Stabilization, deactivation and decommissioning of active facilities	22,139
Total environmental liabilities	$228,873
Amount funded by current appropriations	(1,165)
Total unfunded environmental liabilities	$227,708

During World War II and the Cold War, the United States developed a massive industrial complex to research, produce, and test nuclear weapons. The nuclear weapons complex included nuclear reactors, chemical processing buildings, metal machining plants, laboratories, and maintenance facilities that manufactured tens of thousands of nuclear warheads and conducted more than one thousand nuclear explosion tests.

At all sites where these activities took place, some environmental contamination occurred. In this regard, the treatment and storage of radioactive and chemical waste resulted in contamination of soil, surface water, and groundwater and an enormous backlog of waste and dangerous materials. The environmental legacy derived from the process of producing nuclear weapons includes thousands of contaminated areas and buildings and large volumes of waste and special nuclear materials requiring treatment, stabilization, and disposal. Approximately one-half million cubic meters of radioactive high-level, mixed, and low-level waste must be stabilized, safeguarded, and dispositioned, including a quantity of plutonium sufficient to fabricate thousands of nuclear weapons.

DOE's environmental liability is estimated at almost $229 billion. This estimate includes the cost of addressing existing (legacy) wastes and those facilities that have been declared surplus now or will be surplus prior to October 1998. In addition, DOE's environmental liabilities include stabilization, deactivation, and decommissioning costs related to facilities that are still operating and currently have no scheduled shutdown date.

Legacy Wastes and Surplus Facilities

Baseline Environmental Management Report Estimate

DOE manages one of the largest environmental programs in the world -- with more than 150 sites in more than 30 states and Puerto Rico. The primary focus of the program is to reduce health and safety risks from radioactive waste and contamination resulting from production, development, and testing of nuclear weapons.

As required by the FY 1994 National Defense Authorization Act, DOE prepares an annual Baseline Environmental Management Report (BEMR) on the activities and potential costs required to address the

waste, contamination, and surplus nuclear facilities that are the responsibility of DOE's Office of Environmental Management (EM).

The FY 1996 BEMR base-case estimate of the life-cycle costs for DOE's environmental management program ranges from $189 to $265 billion in constant 1996 dollars, with a mid-range estimate of $227 billion. The estimate begins in FY 1996 and ends in approximately 2070, when environmental activities are projected to be substantially completed. The mid-range estimate represents the life-cycle costs for all site specific activities and projects identified in the Baseline Report. The upper and lower ranges were estimated using a probabilistic analysis of each site's evaluation of levels of confidence in their base-case estimates.

During the latter part of FY 1996, DOE embarked on a new vision for addressing the legacy of the Cold War and disposing of nuclear materials and waste. The vision is the clean up of most of the Environmental Management nuclear sites (except for some waste streams at a small number of sites) within 10 years, while complying with compliance agreements and other legal obligations as they evolve over the 10-year period. Strategically, the 10-year plan, which may result in cost savings from the BEMR estimate, will be accomplished through: receipt of stable annual appropriations; enhanced assessment and remediation strategies; use of innovative technologies; accelerated disposal of inventoried waste; shared use of waste treatment and disposal capabilities; reduced cost of on-site treatment and disposal capabilities; retention of institutional control; reinvestment of savings back into the program; and program efficiencies.

Notwithstanding this new direction, estimates associated with the 10-year plan have not replaced the BEMR estimate in the FY 1996 financial statements, as the 10-year site cleanup plans and related estimates are still being refined and verified.

In FY 1996, DOE's environmental liability related to the BEMR estimate totaled more than $202 billion, which was based on the BEMR mid-range estimate less net adjustments of $25 billion. These adjustments included the following:

- a reduction of $20,547 million representing the amount included in the mid-range estimate for costs associated with processing future waste from ongoing operations;
- a reduction of $6,518 million representing the cost of cleanup activities performed by DOE during FY 1996; and
- an increase of $2,253 million for additional decommissioning costs at the Y-12 weapons plant which were omitted from the FY 1996 BEMR estimate in error.

The BEMR cost projections currently exceed budget availability. The projected budget target (as of October 1995), based on larger Federal budget realities, indicates that the environmental management program will be funded at approximately $5.5 billion in annual funding (in current dollars) by the year 2000. After accounting for inflation, this number equates to $4.9 billion in constant 1996 dollars. The difference between the assumed funding for the base case estimate and the funding target amounts to $27 billion over a 25-year period. This shortfall could necessitate delays or shifts of work scope in the environmental program that may result in significant cost growth in out years.

Estimating the cost of DOE's environmental cleanup liability requires making assumptions about future activities and is inherently uncertain. The future course of DOE's environmental management program will depend on a number of fundamental technical and policy choices, many of which have not been made. Ultimately, these decisions will be made on the basis of fulfilling Congressional mandates, regulatory direction, and stakeholder input.

The cost and environmental implications of alternative choices can be profound. For example, many contaminated sites and facilities could be restored to a pristine condition, suitable for any desired use; they could also be restored to a point where they pose no near-term health risks to surrounding communities but are essentially surrounded by fences and left in place. Achieving pristine conditions would have a higher cost but may or may not warrant the costs and potential ecosystem disruption or be legally required.

The following key assumptions were used in estimating the environmental liability:

- DOE has identified approximately 10,500 potential release sites from which contaminants could migrate into the environment. Although virtually all of these sites have been at least partially characterized, final remedial action and/or regulatory decisions have not been made for most sites. Site specific assumptions regarding the amount and type of contamination and the remediation technologies that will be utilized were used in estimating the environmental restoration costs. These site specific assumptions are described in Volumes II and III of the 1996 Baseline Report.
- The Waste Isolation Pilot Plant will open in 1998. In addition, the first geological repository for high-level radioactive waste will open in 2010. At that time, it

will accept spent nuclear fuel from commercial utilities. In 2016, the repository will begin accepting defense high-level waste and will begin accepting DOE-owned fuel shortly thereafter.

- Only existing technologies, such as pumping and treating groundwater, are assumed to be available for estimating cleanup costs. Estimates were based on remedies considered technically and environmentally reasonable and achievable by local project managers and appropriate regulatory authorities.

- Environmental cleanup will be considered substantially complete when all sites have been remediated and when wastes generated from previous activities and from remediation and stabilization activities are safely disposed.

- Projects with no current feasible remediation approach are excluded from the estimate. The cost estimate would be higher if some remediation were assumed for these areas for which complete cleanup is not technically feasible with existing technologies. However, because no effective remedial technology could be identified, no basis for estimating cost was available. Significant projects excluded are:

  - nuclear explosion test areas (e.g., Nevada Test Site);
  - large surface water bodies (e.g., Clinch and Columbia rivers); and
  - most groundwater (even with treatment, future use will remain restricted).

- Costs related to the disposition of depleted uranium hexafluoride (UF-6) are excluded from the estimate. DOE is assessing strategies for long-term management of approximately 560,000 metric tons of depleted UF-6 and plans to issue a draft programmatic environmental impact statement in FY 1998. DOE estimates that, as of September 30, 1996, the cost of depleted UF-6 disposition will range from $1.3 billion to $3.1 billion, with a probable cost of $1.4 billion, excluding adjustments for inflation after September 30, 1995. However, the extent to which DOE's stockpile of depleted UF-6 will require disposal is dependent on restrictions on the use of this material for military purposes and on other alternative uses.

In addition to the assumptions and exclusions identified above, other factors affect the certainty of the BEMR estimate. Individual project cost estimates include anticipated productivity gains. While DOE was successful in reducing costs through productivity savings in FY 1996, the extent to which such reductions will continue is uncertain. The length of the remediation program is also sufficient to introduce a variety of uncertainties into any cost and schedule estimate. In addition to the above factors, the BEMR estimate was calculated in constant FY 1996 dollars rather than future cash flows, and potential cost increases caused by future inflation could result in costs that are substantially higher than the recorded liability.

The base-case cost estimate was constructed with data provided primarily by the field offices and sites. The cost and schedules were based on meeting existing compliance agreements, including milestones for as long as they were established, consistent with existing Federal, State and/or local statutes and/or regulations. Information included cost and schedule estimates for environmental restoration; nuclear material and facility stabilization; and waste treatment, storage, and disposal activities at each installation. It also includes costs for related activities such as landlord responsibilities, program management, and legally prescribed grants for participation and oversight by Native American tribes and regulatory agencies.

More detailed information concerning DOE's methodology for estimating the environmental management program costs can be found in the 1996 Baseline Environmental Management Report available to the public from the U.S. Department of Commerce, Technology Administration, National Technical Information Service, Springfield, VA 22161. (703) 487-4650.

Dispositioning of excess plutonium

The Nuclear Weapons Council declared and the Secretary of Energy announced that 38.2 metric tons of weapons grade plutonium are excess to national security needs. DOE has considered a variety of disposition methodologies for this excess material. In December 1996, DOE selected a preferred alternative for the storage and disposition of the excess plutonium. The preferred alternative is to reduce, over time, the number of locations where the various forms of plutonium are stored, while the preferred alternative for disposition is to pursue a strategy that allows for immobilization of excess plutonium in glass or ceramic forms and burning of the excess material as mixed oxide fuel in existing reactors. DOE recorded a $2.1 billion unfunded liability in FY 1996 to recognize the estimated cost in constant 1996 dollars of the preferred alternative. A formal record of decision regarding the storage and disposition methodology was announced by the Secretary of Energy in January 1997.

Dispositioning of excess highly enriched uranium waste

The Nuclear Weapons Council declared and the Secretary of Energy announced that 174.3 metric tons of DOE's highly enriched uranium (HEU) were excess to national security needs. Most of this material will be blended for sale as low-enriched uranium (LEU) and used over time as commercial nuclear reactor fuel to recover its value. Material that cannot be economically recovered will be blended to LEU for disposal as low-level waste. At least 26.1 metric tons of the excess HEU will be disposed of as waste. DOE recorded a $592 million unfunded liability in FY 1996 for the disposition of the HEU estimated to be waste.

Deactivation and decommissioning of inactive naval reactors facilities

Deactivation and decommissioning liabilities totaling $833 million for inactive naval facilities represent anticipated remediation costs for those facilities at the Pittsburgh and Schnectady Naval Reactors Offices that have ceased operations. The methodology used for estimating the environmental liabilities for these facilities was similar to the approach used in estimating the liabilities for active facilities, in that experiences of similar types of facilities further along in the decommissioning process were used as a basis for determining the estimate.

Nuclear Waste Fund Fees

The Nuclear Waste Policy Act of 1982 established DOE's responsibility to provide for permanent disposal of the nation's high-level radioactive waste and spent nuclear fuel. The Act requires that owners and generators of nuclear waste pay the full cost of the program and, to that end, establish a fee which DOE must collect and annually assess to determine its adequacy.

To date, no agreement has been reached for payment of fees and interest to the Nuclear Waste Fund (NWF) for DOE's defense high-level waste share of costs. As of September 30, 1996, DOE has paid or funded $527 million of its share of costs. DOE has recorded a $1,071 million unfunded liability of as of September 30, 1996, for the balance owed to the NWF.

Stabilization, deactivation, and decommissioning of active facilities

Environmental liabilities for active facilities represent anticipated remediation costs for those facilities that are conducting ongoing operations but will ultimately require stabilization, deactivation, and decommissioning. The total estimated remediation cost was accrued up front rather than being allocated over the lives of the assets, as the cost will not be recovered through user charges. DOE recorded a $22,139 million liability which is considered the best cost estimate within the $13.8 billion to $37.8 billion range for expected environmental costs at 32 sites. This estimate is not based on costs determined by remediation/feasibility studies performed at the active sites. Rather, similar BEMR site conditions were used as a basis for the estimate. In this regard, BEMR cost models and data were used to extrapolate stabilization, deactivation, and decommissioning costs for contaminated active facilities and structures not included in the BEMR.

14. Pension and Other Actuarial Liabilities

(in millions)

Contractor pension plans	$204
Contractor postretirement benefits other than pensions	5,896
Federal employees' workman's compensation benefits	54
Contractor disability and life insurance plans	18
Total actuarial liabilities	$6,172
Less funded actuarial liabilities	(37)
Total unfunded actuarial liabilities	$6,135

Most of DOE's contractors have defined benefit pension plans under which they promise to pay specified benefits to their employees, such as a percentage of the final average pay for each year of service. DOE's cost under the contracts include reimbursement of annual contractor contributions to these pension plans. DOE's contractors also sponsor postretirement benefits other than pensions (PRB) consisting of predominantly postretirement health care benefits. In the past, these costs were recognized on a pay-as-you-go or cash basis. Since DOE approves the contractors' pension and postretirement benefit plans and is ultimately responsible for funding the plans, the responsibility for any related liabilities rests with DOE. DOE also reimburses the Department of Labor for Federal employees' workman's compensation benefits. The Department of Labor's actuarial estimate of DOE's unfunded liability for future workman's compensation benefits as of September 30, 1996, was $54 million. DOE also reimburses its major contractors for employee disability insurance plans. The actuarial liability as of September 30, 1996, for these plans was $18 million.

Contractor Pension Plans

DOE adopted SFAS No. 87, *Employers' Accounting for Pensions*, beginning in FY 1996 for contractor employees, for whom DOE has a continuing pension obligation. As of September 30, 1996, DOE has prepaid pension costs of $84 million and accrued pension costs of $204 million which are included in these statements. DOE has a continuing obligation for a variety of contractor-sponsored pension plans (51 qualified and 6 nonqualified). In this regard, benefit formulas consist of final average pay (36 plans), career average pay (8 plans), dollar per month of service (12 plans), and one defined contribution plan with future contributions for retired employees. Twenty-nine of the plans cover nonunion employees only, 16 cover union employees only, and 12 cover both union and nonunion employees.

For qualified plans, DOE's current funding policy is for contributions made to a trust during a plan year for a separate defined benefit pension plan to not exceed the greater of: (1) the minimum contribution required by Section 302 of the Employee Retirement Income Security Act (ERISA) or (2) the amount estimated to eliminate the unfunded current liability as projected to the end of the plan year. The term "unfunded current liability" refers to the unfunded current liability as defined in Section 302(d)(8) of ERISA. For nonqualified plans, the funding policy is pay-as-you-go.

Plan assets generally include cash and equivalents, stocks, corporate bonds, government bonds, real estate, venture capital, international investments, and insurance contracts.

Assumptions and methods

In order to provide consistency among the various DOE contractors, certain standardized actuarial assumptions were used. These standardized assumptions include the discount rates and an expected long-term rate of return on plan assets, salary scale, and any other economic assumption consistent with an expected long-term inflation rate of 3.5 percent for the entire U.S. economy with adjustments to reflect regional or industry rates as appropriate. In most cases, ERISA valuation actuarial assumptions for demographic assumptions were used.

The following specific assumptions and methods were used in determining the pension estimates:

The weighted average discount rate of 7.5 percent was used, and the average long-term rate of return on assets was 8.5 percent in determining the net periodic pension cost for FY 1996. The weighted average discount rate used to determine the vested benefit obligation, accrued benefit obligation, and projected benefit obligation as of September 30, 1996, was 7.75 percent. The average rate of compensation increase was 5 percent.

Straight line amortization of unrecognized prior service cost over the average remaining years of service of the active plan participants and the minimum amortization of unrecognized gains and losses were used. The transition obligation was amortized over the greater of 15 years or the average remaining service.

Table 1 sets forth the vested benefit obligation, accrued benefit obligation, projected benefit obligation, plan assets, and a reconciliation of the funded status to the prepaid/(accrued) pension cost after minimum liability. Table 2 sets forth the components of net periodic pension cost for FY 1996.

Table 1

September 30, 1996	*(in millions)*
Vested Benefit Obligation	($8,748)
Accrued Benefit Obligation	(9,310)
Projected Benefit Obligation:	
Projected Benefit Obligation	(11,142)
Plan Assets	14,185
Funded Status	$3,043
Unrecognized Transition Obligation/(Asset)	(1,696)
Unrecognized Prior Service Cost	-
Unrecognized (Gain)/Loss	(1,347)
Prepaid/(Accrued) Pension Cost	-
Adjustment required to reflect minimum liability	(120)
Prepaid/(Accrued) pension cost after minimum liability	($120)
Total Prepaid Pension Cost after minimum liability	$84
Total (Accrued) Pension Cost after minimum liability	(204)

In the interest of brevity, information regarding all defined benefit plans is summarized in a single table. Assets of one plan are not available to satisfy liabilities of another plan.

Table 2

FY 1996	*(in millions)*
Net Periodic Pension Cost:	
Service Cost	$376
Interest Cost	810
Actual Return on Plan Assets	(1,743)
Net Amortization and Deferral	646
Impact of Curtailment or Special Termination Benefits*	31
Total Net Periodic Pension Cost	$120

* Income of $.5 million for a curtailment at the National Renewable Energy Laboratory and expense of $16.8 million for curtailment at Lockheed Martin Energy Systems were recognized in FY 1996. A loss for curtailments at Westinghouse Hanford (now Fluor Daniel Hanford), was not included in the net periodic pension cost since the curtailment loss was offset against the unrecognized gain. However, costs were recognized for special termination benefits of $14 million.

Contractor Postretirement Benefits Other Than Pensions (PRB)

DOE adopted SFAS No. 106, *Employers' Accounting for Postretirement Benefits Other Than Pensions*, beginning in FY 1994 for contractor employees for whom DOE has a continuing obligation. SFAS No. 106 requires that the cost of PRB be accrued during the years that the employees render service. As of September 30, 1996, DOE has an accrued PRB liability of $5,896 million. Prior to FY 1994, PRB costs, consisting of predominantly retiree health care, were recognized as expenses when claims were paid. Generally, the PRB plans are unfunded, and DOE's funding policy is to fund on a pay-as-you-go basis. There are 8 contractors, however, that are prefunding benefits in part as permitted by law.

DOE's contractors sponsor a variety of postretirement benefits other than pensions. Benefits consist of medical (35 contractors), dental (14 contractors), life insurance (23 contractors), and Medicare Part B premium reimbursement (4 contractors). Thirty-one of the contractors sponsor a traditional indemnity plan, a PPO, an HMO without a gatekeeper, or similar plan. Eleven of these also have a point of service plan, an HMO with a gatekeeper, or similar plan. Four additional contractors have only a point of service plan, an HMO with a gatekeeper, or similar plan.

Assumptions and methods

In order to provide consistency among the various DOE contractors, certain standardized actuarial assumptions were used. These standardized assumptions include medical and dental trend rates, discount rates, and mortality assumptions.

Table 3

September 30, 1996	*(in millions)*
Accumulated Postretirement Benefit Obligation:	
Fully eligible actives	($708)
Other actives	(1,918)
Retirees	(2,263)
Total APBO	($4,889)
Plan assets	116
Funded status	($4,773)
Unrecognized prior service cost	(93)
Unrecognized (gain)/loss	(1,030)
Accrued postretirement benefit liability	($5,896)

Table 4

FY 1996	*(in millions)*
Net Periodic Postretirement Benefit Cost:	
Service cost	$181
Interest cost	352
Actual return on plan assets	(8)
Net amortization and deferral	(54)
Impact of curtailment*	(1)
Total Net Periodic Postretirement Benefit Cost	$470

The following specific assumptions and methods were used in determining the PRB estimates:

The medical and drug trend rates for a point of service plan, an HMO with a gatekeeper, or similar plan for under age 65, grade from 8.0 percent in 1995 down to 5.5 percent in 2002 and later and, for over age 64, grade from 7.25 percent in 1995 down to 5.5 percent in 2002 and later. For a PPO, a traditional indemnity plan, an HMO without a gatekeeper, or similar plan, the trend rates for under age 65 grade from 13.0 percent in 1995 down to 6.5 percent in 2002 and later and, for over age 64, grade from 11.5 percent in 1995 down to 6.5 percent in 2002 and later. The dental trend rates at all ages grade down from 8.0 percent in 1995 to 5.5 percent in 2002 and later.

The weighted average discount rate of 7.5 percent was used, and the average long-term rate of return on assets was 7.33 percent in determining the net periodic postretirement benefit cost for FY 1996. The weighted average discount rate used to determine the accumulated postretirement benefit obligation as of September 30, 1996, was 7.75 percent. The rate of compensation increase was the same rate as each contractor used to determine pension contributions.

Straight line amortization of unrecognized prior service cost over the average remaining years of service to full eligibility for benefits of the active plan participants and the minimum amortization of unrecognized gains and losses were used. DOE chose immediate recognition of the transition obligation existing at the beginning of FY 1994.

Table 3 sets forth the components of the accumulated postretirement benefit obligation, plan assets, and a reconciliation of the funded status to the accrued postretirement benefit liability. Table 4 sets forth the components of net periodic postretirement benefit cost for FY 1996. Table 5 sets forth the effect of a one percentage point increase in the assumed health care cost trend rates for each future year.

Table 5

Trend Rate Sensitivity	*(in millions)*	
	Base Valuation	1% Trend Increase
Service Cost plus Interest Cost for health care benefits	$ 493	$ 595
APBO as of Sep. 30, 1996 for health care benefits	4,409	5,145

* Income of $1.3 million was recognized in FY 1996 for curtailment at Princeton Plasma Physics Laboratory. Also, a loss for curtailments resulting from a special early retirement program at Westinghouse Hanford (now Fluor Daniel Hanford) was not included since the loss was included as an offset to the unrecognized gain.

15. Other Governmental Liabilities (unfunded)

(in millions)

Environment, safety, and health compliance activities	$1,152
United States Enrichment Corporation	352
Uranium/thorium reimbursements	241
Capital leases	141
Accrued annual leave of Federal employees	87
Other unfunded liabilities	68
Total other governmental liabilities	$2,041

Environment, Safety and Health Compliance Activities

DOE accrued a $1,152 million estimated liability in FY 1996 for those activities necessary to bring its facilities and operations into compliance with existing environmental, safety, and health (ES&H) laws and regulations (e.g., Occupational Safety and Health Act; Clean Air Act; Safe Drinking Water Act). Types of activities included in the estimate relate to the following: upgrading site wide fire and radiological programs; nuclear safety upgrades; industrial hygiene and industrial safety; safety related maintenance; emergency preparedness programs; life safety code improvements; and transportation of radioactive and hazardous materials. The estimate covers corrective actions expected to be performed in FY 1997 and beyond for programs outside the purview of DOE's Environmental Management (EM) Program. ES&H activities within the purview of the EM program are included in the environmental liability estimate.

A DOE assessment conducted during FY 1996 identified additional ES&H vulnerabilities at 13 sites where highly enriched uranium is stored or handled. An estimate of the liability related to these vulnerabilities is not available. Therefore, these statements do not reflect the costs to address corrective actions needed at these sites.

United States Enrichment Corporation (USEC)

DOE has entered into an agreement with USEC that requires DOE to fund certain costs associated with the gaseous diffusion plants leased by USEC. DOE's unfunded liabilities for these costs as of September 30, 1996, totaled $352 million for nuclear safety upgrades to the plants, security, and processing costs for highly enriched material sold to USEC and decommissioning costs for the plants supplying electrical energy to the gaseous diffusion plants.

Uranium/Thorium Reimbursements

The Energy Policy Act of 1992, as amended by the Uranium Mill Tailings Radiation Control Act, provides that DOE's Uranium Enrichment Decontamination and Decommissioning (D&D) Fund will reimburse licensees operating uranium or thorium processing sites for the cost of environmental cleanup at those sites, subject to maximum reimbursements of $350 million for uranium licensees and $65 million for the thorium licensee, plus adjustments for inflation. Of the total liability of $250 million at September 30, 1996, $241 million was not funded by appropriations of the D&D Fund.

Capital Leases

DOE's contractors lease facilities, machinery, equipment, and other assets. The assets under capital leases are recorded under the lesser of the present value of minimal lease payments or the fair value of the assets. Unfunded capital lease liabilities totaled $141 million as of September 30, 1996, and generally reflected lease agreements in effect prior to FY 1993. Subsequent capital leases, except for telecommunications and certain computer leases, are required to be funded by current appropriations.

16. Contingencies

DOE is a party in various administrative proceedings, legal actions and tort claims which may ultimately result in settlements or decisions adverse to the Federal government. DOE has accrued contingent liabilities where losses are determined to be probable and the amounts can be estimated.

Other significant contingencies exist where a loss is reasonably possible, or where a loss is probable and an estimate cannot be determined. In some cases, a portion of any loss that may occur may be paid from Treasury's Judgment Fund. The following are other significant contingencies:

- *Toxic Releases from DOE's Facilities* - DOE's contractors are defendants in a number of class action suits arising from alleged environmental contamination of air, water, and soil affecting communities surrounding various DOE facilities. Collectively, in the most significant cases involving facilities at Portsmouth and Mound, Ohio; Rocky Flats, Colorado; Hanford, Washington; and

Brookhaven, New York, the claimants seek in excess of $3.5 billion in damages. DOE's contractors are vigorously contesting all of these cases, but an evaluation of the likely outcome of these claims cannot be estimated at this time.

- *Human Radiation Experiments* - DOE and its contractors are the defendants in a number of individual and class action suits, as well as administrative claims, arising from past human radiation experiments sponsored or carried out by the Federal government. In the aggregate, the claimants seek more than $1 billion in damages. Due to the preliminary nature of these matters, an evaluation of the likely outcomes of these claims cannot be estimated at this time. While the cases will be vigorously contested, possibilities of settlement will also be pursued.

- U.S. v. Yankee Atomic Electric Company - This is an appeal (and cross appeal) from a decision of the Court of Federal Claims ordering the refund of special assessments totaling $2.9 million paid by Yankee into the Uranium Enrichment Decontamination and Decommissioning Fund. DOE is appealing the lower court's adverse decision and believes it will ultimately prevail in this action. Should Yankee prevail against DOE in this matter, Yankee will not pay future assessments amounting to more than $10 million. In addition, the validity of substantially all past and future assessments against domestic utilities, totaling $2,432 million, would be in question.

- *Compliance with the Nuclear Waste Policy Act* - DOE has acknowledged that it will not have a high-level nuclear waste repository on line by the January 31, 1998, date specified in the Nuclear Waste Policy Act (NWPA) of 1982, as amended. In May 1995, various utilities, states, and state public utility commissions filed a petition (Indiana Michigan Power Co. v. DOE) challenging DOE's final interpretation that it was not unconditionally obligated under the NWPA to accept spent nuclear fuel and high-level radioactive waste by January 31, 1998, in the absence of a repository constructed and licensed under the Act. On July 23, 1996, the U.S. Court of Appeals concluded that the NWPA creates an obligation for DOE, in return for the utilities' obligation to pay fees under the Act to start disposing of spent nuclear fuel no later than January 31, 1998, regardless of the availability of a repository or interim storage facility. The court noted that DOE has not yet defaulted on its statutory or contractual obligations with the utilities and found it premature to determine an appropriate remedy or how the disposal obligation might be met in the absence of a repository. DOE decided not to seek a review of the decision by the U.S. Supreme Court and is reviewing options on how to proceed. DOE has not estimated the potential financial impacts of the court's decision,and no provision has been made for any loss in the financial statements.

  In addition to the suit described above, on January 31, 1997, a coalition of 46 State agencies and a coalition of 36 entities filed petitions in the U.S. Court of Appeals for the District of Columbia Circuit seeking review of DOE's alleged breach of its duty to begin disposal of spent nuclear fuel beginning January 31,1998. While the lawsuits do not seek monetary damages, the coalitions seek to suspend future payments to the Nuclear Waste Fund, and place their payments in an escrow fund until DOE commences disposing of the spent nuclear fuel. DOE will vigorously defend the suits, but it is premature to predict what effect these lawsuits will have on DOE's financial statements.

- *Natural Resource Damage Claims* - DOE is disclosing a contingency for potential natural resource damage (NRD) claims filed under the Comprehensive Environmental Response, Compensation, and Liability Act. Such liabilities could result from potential claims filed against DOE for natural resource injuries, primarily those remaining at DOE facilities after cleanup. Although any estimate of such liability is by necessity extremely speculative, the Administration recently estimated the range of DOE's potential NRD liability from about $1 billion to over $2 billion.

  Notwithstanding the potential for such claims, there neither are currently pending claims against DOE nor have there been any successful NRD claims against DOE. DOE's practice of addressing natural resource injuries during the remedy selection process should limit the exposure to potential NRD claims. DOE has initiated other efforts as well that are intended to minimize the potential for NRD claims. These efforts include: creating site-specific advisory boards at its facilities; ensuring participation of interested parties in the remedial planning process; and forming natural resource trustee councils at facilities where there is sufficient interest. In view of the foregoing, DOE currently considers estimating its potential NRD liability speculative, and any potential payment less than probable but reasonably possible. Therefore, DOE has not recognized such a liability in its financial statements to date.

- In FY 1995, the Tenaska Washington Partners (Tenaska) and Chase Manhattan Bank (Chase) filed suit

against the Bonneville Power Administration (BPA) for breach of contract and lost revenues. In June 1996, BPA reached a settlement which resulted in a payment of $115 million by BPA to Chase. Currently, BPA and Tenaska are in binding arbitration to resolve Tenaska's suit. BPA believes that the factual and legal assertions by Tenaska in support of its $1,125 million claim are without merit. However, BPA believes that arbitration could result in an award from the Tenaska case in excess of $115 million. There are defenses available to BPA that could result in a lesser award. Any monetary award received by Tenaska in arbitration will be offset by the $115 million paid by BPA to Chase in settlement of Chase's claim, plus interest accruing on this amount. In the event that Tenaska obtains an award in arbitration that is less than the amount BPA paid to Chase, Tenaska will owe BPA the difference. BPA's minimum liability for this matter has been accrued in DOE's financial statements.

17. Unexpended Appropriations

(in millions)

	Appropriated Funds	Special Funds	Trust Funds	Total
Unobligated				
Available	$1,838	$24		$1,862
Unavailable	561	3		564
Total unobligated	$2,399	$27		$2,426
Undelivered orders	6,301	74	$12	6,387
Unfilled customer orders	(1,807)			(1,807)
Funded environmental liabilities	(1,139)	(26)		(1,165)
Total unexpended appropriations	$5,754	$75	$12	$5,841

18. Revenues and Related Costs from Goods and Services Provided

(in millions)

	Revenues from Goods and Services Provided	Costs of Goods and Services Provided	Net Revenues (Losses)
Public			
Power marketing administrations	$3,372	$2,463	$909
Sale of oil from the Naval Petroleum Reserves	412	161	251
Sale of oil from the Strategic Petroleum Reserve	325	494	(169)
Reimbursable and cooperative work	109	110	(1)
Other	80	71	9
Total public	$4,298	$3,299	$999
Intragovernmental			
Reimbursable work - defense related	767	767	0
Reimbursable work - non defense related	478	478	0
Services performed for the U.S. Enrichment Corporation	525	525	0
Power marketing administrations	119	90	29
Other	69	22	47
Total intragovernmental	$1,958	$1,882	$76
Total	$6,256	$5,181	$1,075

Power Marketing Administrations

DOE's power marketing administrations market electricity generated primarily by Federal hydropower projects. Preference for the sale of power is given to public bodies and cooperatives. Revenues from selling power and transmission services are used to repay Treasury annual appropriations and maintenance costs, repay the capital investments with interest, and assist capital repayment of other features and certain projects.

Sale of Oil from the Naval Petroleum Reserves

Crude oil, natural gas, and liquid gas products produced from the Naval Petroleum Reserves are sold to public customers at bid prices. Proceeds from these sales and royalties from leased acreage are returned to Treasury. DOE's share of FY 1996 production at the Naval Petroleum Reserves totaled 40 million barrels of oil equivalent.

The Naval Petroleum Reserves' lands were withdrawn from public sale in the early 1900's by the U.S.

Government. Therefore, no value has been recorded for the crude oil and gas reserves underlying these lands, and no costs are reflected for the depletion of the reserves.

Sale of Oil from the Strategic Petroleum Reserve

During FY 1996, DOE sold 17.9 million barrels of oil from the Strategic Petroleum Reserve. The first sale consisted of 5.1 million barrels and the proceeds of $97 million were retained by DOE to offset the costs of decommissioning Weeks Island. The second sale consisted of 12.8 million barrels, and the proceeds of $228 million were returned to Treasury.

Reimbursable and Cooperative Work

DOE performs work for other Federal agencies and private companies on a reimbursable work basis and on a cooperative work basis. Whereas reimbursable work is generally not DOE's direct mission, but part of the customer's mission, cooperative work is part of DOE's direct mission. Reimbursable work is financed by funds of Federal agencies ordering the work or by cash advances from non-Federal customers, and DOE receives no appropriated funds for such work or services. Cooperative work, however, is financed by funds appropriated to DOE that may be used in a cooperative effort with one or more Federal or non-Federal participants. Authorities for DOE to perform reimbursable work include the Economy Act of 1932, the Atomic Energy Act of 1954, Intergovernmental Cooperation Act of 1968, Department of Energy Organization Act of 1990, and Intergovernmental Personnel Act of 1970. Authorities for performance of cooperative work include Public Law 98-438, the Energy Reorganization Act of 1974, section 107(a), and Public Law 95-224, the Federal Grant and Cooperative Agreements Act of 1977.

Services Performed for the U.S. Enrichment Corporation (USEC)

USEC leases DOE's gaseous diffusion plants. While DOE does not receive payment from USEC for the lease, USEC does pay for all services provided by DOE or its contractors. Most of the reimbursements are for the cost of providing electricity to operate the gaseous diffusion plants.

19. Other Revenues and Financing Sources

(in millions)

Nuclear Waste Fund	$674
Federal Energy Regulatory Commission	190
Petroleum Pricing Violation Escrow Fund	84
Uranium Enrichment Decontamination and Decommissioning Fund	51
Other	20
Total	$1,019

Nuclear Waste Fund

The Nuclear Waste Policy Act of 1982 requires DOE to assess fees against owners and generators of high-level radioactive waste and spent nuclear fuel to fund the costs associated with management and disposal activities under Titles I and II of the Act. Fees assessed in FY 1996 totaled $641 million. An additional $33 million was earned from the net gains from activities related to the investment in Treasury securities.

Federal Energy Regulatory Commission

The Federal Energy Regulatory Commission assesses most of its administrative program costs as an annual charge to each regulated entity. These revenues are returned to Treasury when collected.

Petroleum Pricing Violation Escrow Fund

DOE recognized $84 million in revenues in FY 1996 from oil overcharge reimbursements that were deferred in prior years pending a determination of how to distribute funds from the Petroleum Pricing Violation Escrow Fund. In FY 1996, DOE determined that these funds were not needed to settle claims from injured parties and returned the funds, along with $6 million in accrued interest, to Treasury.

Uranium Enrichment Decontamination and Decommissioning Fund

Revenue from assessments against domestic utilities is recognized when such assessments are authorized by legislation. Revenue recognized includes known adjustments for transfers between utilities and other reconciliation adjustments. Increases in current and future assessments due to changes in the Consumer Price Index are recognized in each fiscal year as such changes occur.

20. Receipts Transferred to Treasury and Other Agencies

(in millions)

Power marketing administrations	($732)
Naval Petroleum Reserves	(440)
Strategic Petroleum Reserve	(228)
Federal Energy Regulatory Commission	(187)
Petroleum Pricing Violation Escrow Fund	(90)
Other	(14)
Total	($1,691)

Power Marketing Administrations

Each of the power marketing administrations, except for the Alaska Power Administration, is responsible for collecting and remitting to Treasury revenues attributable to the hydroelectric power projects owned and operated by the U.S. Department of Defense, Army Corps of Engineers; the U.S. Department of Interior, Bureau of Reclamation; and the U.S. Department of State, International Boundary and Water Commission. Revenues collected on behalf of these agencies totaled $732 million in FY 1996.

Naval Petroleum Reserves

Proceeds from the sale of crude oil, natural gas, and liquid gas products produced from the Naval Petroleum Reserves, totaling $412 million in FY 1996, were returned to Treasury. An additional $28 million representing the joint interest costs at the Naval Petroleum Reserves in California reimbursed to DOE by Chevron USA, Inc. was also returned to Treasury.

21. Other Expenses

(in millions)

Nuclear materials expense	$1,128
Other expenses	493
Total other expenses	$1,621

The $1,128 million nuclear materials expense relates primarily to the ongoing dismantlement of that portion of the nuclear weapons stockpile which the Nuclear Weapons Council has declared excess to national security needs. Also included in this amount is a $154 million write-off of an estimated 26.1 metric tons of excess highly enriched uranium that is to be converted to waste. In addition, the nuclear material expense includes an estimated loss of $89.1 million related to the nuclear materials inventory transfers mandated by Public Law 104-134, the United States Enrichment Corporation Privatization Act of 1996. This law requires DOE to transfer up to 50 metric tons of highly enriched uranium and up to 7,000 metric tons of natural uranium to the United States Enrichment Corporation (USEC). USEC will transfer uranium hexaflouride to DOE for sale to Russia and others. The net book value of materials to be transferred by DOE to USEC exceeds the estimated revenues to be generated from the sale of uranium hexaflouride by $89.1 million. This amount was recorded as a liability on DOE's financial statements.

Other expenses consist primarily of write-offs of abandoned projects and adjustments resulting from physical inventories of property, plant, and equipment.

22. Unfunded Liability Adjustments

(in millions)

Adjustments to legacy waste and surplus facilities unfunded liability:	
Increase in Baseline Environmental Management Report estimate	$11,347
FY 1996 appropriations for legacy waste activities	(6,056)
Excess plutonium environmental liability expense	2,100
Excess highly enriched uranium liability expense	592
Environmental liability expense for naval reactors legacy wastes	833
Decrease in NWF fee liability	(27)
Net increase in legacy waste and surplus facilities unfunded liability	$8,789
Unfunded actuarial liability expense	357
Other net changes in unfunded liabilities	(95)
Total net unfunded liability expenses	$9,051

23. Prior Period Adjustments

(in millions)

Stabilization, deactivation, and decommissioning of active facilities	($22,072)
Unfunded environment, safety, and health compliance activities liability	(1,152)
Write-down of legacy waste facilities & equipment	(1,592)
Reclassification of power marketing administrations' invested capital	(3,797)
Nuclear materials variance	(1,912)
Correction of erroneously capitalized expenditures	(387)
Excess nuclear materials valuation	431
Other	59
Total	($30,422)

Stabilization, deactivation, and decommissioning of active facilities

DOE accrued $22,072 million for estimated unfunded environmental liabilities during FY 1996 for those facilities that are conducting ongoing operations but will ultimately require stabilization, deactivation, and decommissioning. This brought the total estimated unfunded environmental liability for active facilities to $22,139 million.

Unfunded environment, safety, and health compliance activities liability

DOE accrued a $1,152 million estimated liability in FY 1996 for those activities necessary to bring its facilities and operations into compliance with existing environmental, safety, and health laws and regulations. The estimate covers corrective actions expected to be performed in FY 1997 and beyond for programs outside the purview of DOE's Environmental Management (EM) Program. ES&H activities within the purview of the EM program are included in the environmental liability estimate.

Write-down of legacy waste facilities & equipment

DOE changed its capitalization practices related to environmental management processing facilities and equipment during FY 1995. DOE implemented the guidance of the Financial Accounting Standards Board (FASB) Emerging Issues Task Force Issue 90-8, *Capitalization of Costs to Treat Environmental Contamination*. This guidance requires the expensing of facilities and equipment that treat, store, or dispose of existing environmental wastes generated by past operations (legacy waste facilities and equipment). An estimate of DOE's legacy waste facilities and equipment resulted in a write-down of property, plant, and equipment and a charge to expense of $3 billion during FY 1995. Analysis performed during FY 1996 resulted in an additional write-down of $1,592 million of legacy waste facilities and equipment.

Reclassification of power marketing administrations' invested capital

DOE reclassified the beginning FY 1996 invested capital balance for the power marketing administrations. The net position balance was reclassified to an intragovernmental liability, "Appropriated Capital Owed to Treasury," during FY 1996.

Nuclear materials variance

DOE wrote-off a nuclear materials production variance of $1,912 million in FY 1996. This variance resulted from prior-years' differences between standard and actual production costs for nuclear materials that DOE is no longer producing.

Correction of erroneously capitalized expenditures

DOE wrote-off $387 million from construction work in process for costs that were erroneously capitalized in prior years. These costs related to scientific efforts to determine various technologies for the construction of a tritium production reactor. The program was in the preliminary design phase when it was terminated, and the costs should have been expensed when incurred.

Excess nuclear materials valuation

DOE reduced the value of the nuclear materials stockpile in FY 1995 based on materials that were declared excess to national security needs. During further analysis conducted in FY 1996, it was discovered that some of this material had a valid non-defense use within DOE. This, coupled with refinements in the estimate used in FY 1995, resulted in an increase of $431 million in the nuclear materials stockpile in FY 1996.

24. Other Matters

Fast Flux Test Facility

Based on a decision to shut down DOE's Fast Flux Test Facility (FFTF) and a determination that there was no future mission for the facility, it was written off in FY 1995. However, consideration of the FFTF for a role in the production of tritium prompted an announcement by the Secretary of Energy in January 1997 that DOE is placing the FFTF in a "hot standby" condition. In response to this decision, DOE will return approximately $160 million net book value ($421 million acquisition value and $261 accumulated depreciation) to property, plant, and equipment in FY 1997.

Disposition of Depleted Uranium Generated by the U.S. Enrichment Corporation

Pursuant to Section 3109(a)(3) of the U.S. Enrichment Corporation (USEC) Privatization Act of 1996, DOE will assume the reponsibility for disposal of depleted uranium generated by USEC between July 1, 1993, and the privatization date. This responsibility is dependent on formal establishment of a private corporation to receive the assets and obligations of USEC and continue its business operations, as well as execution of a Memorandum of Agreement between the Office of Management and Budget (OMB) and USEC to implement the requirements of Section 3109 of the Act.

As of September 30, 1996, the private corporation had not been established, nor had negotiations between OMB, USEC, and DOE been finalized. Further, DOE's draft environmental impact statement scheduled for issuance in FY 1998 may identify potential alternative uses for depleted UF-6, which could impact the amount of USEC generated depleted uranium requiring disposal. Accordingly, no provision for the cost of disposal is included in these financial statements.

The Department of Energy is funded by multiple appropriations and receipt accounts which are grouped as follows for purposes of reporting consolidating schedules of financial position and operations and changes in net position:

Energy and Water Development Committee Appropriations

Federal Energy Regulatory Commission:

0212 Salaries and Expenses, Federal Energy Regulatory Commission
5105 Payments to States Under Federal Power Act
5230 Federal Energy Regulatory Commission

Power Marketing Administrations:

0304 Operation and Maintenance, Alaska Power Administration
4045 Bonneville Power Administration Fund
0302 Operation and Maintenance, Southeastern Power Administration
5653 Continuing Fund, Southeastern Power Administration
0303 Operation and Maintenance, Southwestern Power Administration
5649 Continuing Fund, Southwestern Power Administration
6772 Contract Holdbacks, Southwestern Power Administration
0305 Construction, Rehabilitation, Operation, and Maintenance, Western Area Power Administration
5068 Construction, Rehabilitation, Operation, and Maintenance, Western Area Power Administration
5069 Emergency Fund, Western Area Power Administration
5178 Falcon and Amistad Operation and Maintenance Fund

Other DOE Programs:

0206 Geothermal Loan Guarantee and Interest Assistance Program
0222 General Science and Research Activities
0224 Energy Supply, Research Activities
0226 Uranium Supply and Enrichment Activities
0228 Departmental Administration
0236 Expenses, Office of the Inspector General
0240 Weapons Activities
0243 Materials Production and Other Defense Programs
0244 Defense Nuclear Waste Disposal
4180 Expenses, Isotope Production and Distribution Program Fund
5226 Uranium Supply and Enrichment Activities
5227 Nuclear Waste Disposal Fund
5231 Uranium Enrichment Decontamination and Decommissioning Fund
6425 Payments by Alleged Violators of Department of Energy's Regulations
6427 Low-Level Radioactive Waste
8575 Advances for Cooperative Work

Interior and Related Agencies Committee Appropriations

0213 Fossil Energy Research & Development
0214 Fossil Energy Construction
0215 Energy Conservation
0216 Energy Information Administration
0217 Economic Regulation
0218 Strategic Petroleum Reserve
0219 Naval Petroleum and Oil Shale Reserves
0233 Strategic Petroleum Reserve Petroleum Account
0234 Emergency Preparedness
0235 Clean Coal Technology
5154 Clean Coal Technology
5180 Alternative Fuels Production

Consolidating Schedules of Financial Position

for the Fiscal Year Ended 1996

(in millions)	Energy and Water Development: Federal Energy Regulatory Commission	Energy and Water Development: Power Marketing Administrations
ASSETS		
Agency Assets		
Intragovernmental		
Fund Balance with Treasury (Note 2)	$42	$500
Investments (Note 3)		
Accounts Receivable (Note 4)		15
Governmental		
Investments (Note 3)		
Accounts Receivable, Net (Note 4)	2	342
Stockpile Materials (Note 5)		
Strategic Petroleum Reserve		
Nuclear Materials		
Property, Plant, and Equipment, Net (Note 6)	22	5,305
Regulatory Assets (Note 7)		7,197
Other Agency Assets		1,123
Total Agency Assets	$66	$14,482
Custodial Assets (Note 8)	3	4
Total Assets	$69	$14,486
LIABILITIES		
Liabilities Covered by Budgetary Resources		
Intragovernmental Liabilities		
Accounts Payable	$3	$296
Debt (Note 9)		2,456
Appropriated Capital Owed to Treasury (Note 10)		3,797
Governmental Liabilities		
Accounts Payable (Note 11)	17	247
Debt (Note 7)		7,197
Deferred Revenue and Other Credits (Note 12)	3	42
Funded Environmental Liabilities (Note 13)		
Total Liabilities Covered by Budgetary Resources	$23	$14,035
Governmental Liabilities Not Covered by Budgetary Resources		
Environmental Liabilities (Note 13)		
Pension and Other Actuarial Liabilities (Note 14)		31
Other Governmental Liabilities (Note 15)	8	1
Total Liabilities Not Covered by Budgetary Resources	$8	$32
Total Liabilities	$31	$14,067
NET POSITION		
Unexpended Appropriations (Note 17)	$24	
Invested Capital	22	22
Cumulative Results of Operations		429
Future Funding Requirements	(8)	(32)
Total Net Position	$38	$419
Total Liabilities and Net Position	$69	$14,486

Appropriations	*Interior and Related Agencies Appropriations*		
Other DOE Programs		Eliminations	Consolidated
$7,380	$2,989		$10,911
6,402			6,402
1,785	4	($1,116)	688
72			72
4,183	141		4,668
	15,224		15,224
24,264			24,264
15,061	1,661		22,049
			7,197
486	31		1,640
$59,633	$20,050	($ 1,116)	$93,115
805	106		918
$60,438	$20,156	($ 1,116)	$94,033
$1,363	$230	($1,116)	$776
			2,456
			3,797
4,214	409		4,887
			7,197
8,372			8,417
1,165			1,165
$15,114	$639	($ 1,116)	$28,695
227,397	311		227,708
6,089	15		6,135
1,900	132		2,041
$235,386	$458		$235,884
$250,500	$1,097	($ 1,116)	$264,579
$3,216	$2,601		$5,841
39,753	16,917		56,714
2,264	(3)		2,690
(235,295)	(456)		(235,791)
($190,062)	$19,059		($170,546)
$60,438	$20,156	($ 1,116)	$94,033

Consolidating Schedules of Statement of Operations and Changes in Net Position

for the Fiscal Year Ended 1996

(in millions)	Energy and Water Development: Federal Energy Regulatory Commission	Energy and Water Development: Power Marketing Administrations
REVENUES AND FINANCING SOURCES		
Appropriated Capital Used	$153	$22
Revenues from Goods and Services Provided (Note 18)		
Public		3,372
Intragovernmental		119
Interest		
Other Revenues and Financing Sources (Note 19)	190	7
Less Receipts Transferred to Treasury & Other Agencies (Note 20)	(187)	(732)
Nuclear Waste Fund Deferred Revenue Adjustment (Note 12)		
Total Revenues and Financing Sources	$156	$2,788
EXPENSES		
Program Expenses		
Energy Resources		22
Science and Technology		
National Security		
Environmental Quality		
Management and Other Activities	146	
Cost of Goods and Services Provided (Note 18)		
Public		2,463
Government		90
Depreciation		
Other Expenses (Note 21)	10	
Estimated Unfunded Liability Adjustments (Note 22)		
Total Expenses	$156	$2,575
Shortage of Revenues and Financing Sources Over Total Expenses	$0	$213
CHANGES IN NET POSITION		
Net Position, Beginning Balance, as Stated	$60	$4,154
Prior Period Adjustments (Note 23)		(3,948)
Net Position, Beginning Balance, as Adjusted	$60	$206
Non Operating Changes	(22)	
Excess (Shortage) of Revenues and Financing Sources Over Total Expenses	0	213
Net Position	$38	$419

Appropriations	*Interior and Related Agencies Appropriations*		
Other DOE Programs		Eliminations	Consolidated
$17,580	$2,502	($350)	$19,907
190	736		4,298
1,839			1,958
572		(52)	520
905	26	(109)	1,019
(103)	(669)		(1,691)
(1,098)		136	(962)
$19,885	$2,595	($375)	$25,049
717	1,781	(25)	$2,495
2,417			2,417
4,375	2		4,377
6,565		(350)	6,215
404	87		637
180	656		3,299
1,792			1,882
1,833	74		1,907
1,604	7		1,621
9,127	(76)		9,051
$29,014	$2,531	($375)	$33,901
($9,129)	$64	$0	($8,852)
($152,112)	$20,521		($127,377)
(26,126)	(348)		($30,422)
($178,238)	$20,173	$0	($157,799)
(2,695)	(1,178)		($3,895)
(9,129)	64	0	(8,852)
($190,062)	$19,059	$0	($170,546)

Supplemental Financial and Management Information

Program expenses are summarized in the Consolidated Statement of Operations and Changes in Net Position by business line. The following supplemental financial and management information provides a more detailed breakdown of the expenses for each business line. Program performance measures that were not reported in the overview are included for each business line.

SCIENCE AND TECHNOLOGY ACTIVITIES - provide science and tools needed to develop energy technology options, to understand the health and environmental implications of energy activities, and to understand the fundamental nature of energy and matter; provide large scale facilities required in natural sciences to ensure U.S. leadership in the search for knowledge; and apply research and development competencies to help ensure the availability of scientific talent.

		(in millions)
Energy Research		
Biological and Environmental Research	$384	
Fusion Energy	266	
Basic Energy Sciences	762	
High Energy Physics	492	
Nuclear Physics	210	
General Science Program Direction	9	
Laboratory Technology Transfer	38	
Multiprogram Energy Labs - Facility Support	7	
SBIR/SBTT	95	
Superconducting Super Collider	80	
University Science Education	46	
Other Energy Research	16	
Subtotal		$2,405
Science and Technical Information		12
TOTAL		**$2,417**

Energy Research

Biological and Environmental Research - fundamental science in the pursuit of understanding the consequences to health and the environment of energy production, development, and use, including DOE's support of the national Human Genome and Global Climate Change programs, and providing unique national user facilities for the scientific community.

Fusion Energy - research and development needed for an economically and environmentally attractive fusion energy source, namely advancing plasma science, developing fusion science, technology, and plasma confinement innovations, and pursuing fusion energy science and technology as a partner in the international effort.

Basic Energy Sciences - fundamental research on materials sciences, chemical sciences, geosciences, biosciences, mathematical sciences, high performance computing and communications, information infrastructure, and engineering sciences that underpins the DOE missions in energy and the environment, that advances energy related basic science on a broad front, and that provides unique national user facilities for the scientific community.

High Energy Physics - research to understand the nature of matter and energy at the most fundamental level, as well as the basic forces which govern all processes in nature, that requires accelerators and detectors utilizing state-of-the-art technologies in many areas, including fast electronics, high speed computing, superconducting magnets, and high power radio-frequency devices.

Nuclear Physics - research to understand the structure and properties of atomic nuclei and the fundamental forces between the constituents that form the nucleus. Nuclear processes determine essential physical characteristics of our universe and the composition of the matter that forms it.

General Science Program Direction - program management and administration, including personnel and related costs.

Laboratory Technology Transfer - facilitates transfer of technology from Departmental laboratories.

Multiprogram Energy Labs - Facility Support - operation and maintenance of multiprogram laboratories including related management, corrective action, and disposition activities.

Small Business Innovative Research/Small Business Technology Transfer (SBIR/SBTT) - DOE-supported research and development of energy related technology that will significantly benefit U.S. businesses, including a pilot technology transfer program initiative.

Superconducting Super Collider - expenditures are for the orderly termination of this activity.

University Science Education - provides assistance in science education (precollege through postdoctoral), including reactor fuel assistance, scientific instrumentation, and technology transfer.

Other Energy Research - energy research analysis of technology initiatives, independent advisory and oversight of DOE research and development (R&D) and national laboratories, and program management and administration of Energy Research Energy Supply R&D programs.

Science and Technical Information - advances energy and nuclear defense technologies and safeguards U.S. economic and military security through effectively controlling and overseeing the dissemination of DOE's scientific and technical knowledge.

Performance Measures

Initiating Science-Based Programs to Find New Methods for Environmental Cleanup
Initiating science-based programs to find new cost-effective methods for environmental clean-up of DOE sites.

Goals:
Developing a 10-year program plan for bioremediation research and implementing the first phase by March 1996 for clean-up of national laboratory and nuclear weapons production sites.

FY 1996 Results:
The Natural and Accelerated Bioremediation Research Program plan was published in September 1995 in hard copy and on the World Wide Web. The program management structure has been developed, and the first solicitations for research proposals were issued in March 1996, with awards made in July.

Initiating a basic research program effort by September 1996 through an Office of Energy Research (ER) and Office of Environmental Management (EM) partnership in order to provide less costly and more effective cleanup technologies.

ER initiated and provided funding for a pilot research program in support of basic science needs identified by program managers in EM. After full external peer review, 9 research awards were made in February 1996.

Investigating the Causes of Global Climate Change

Continue to provide strong support to the interagency effort to investigate the natural and human causes of global climate change phenomena and reduce U.S. greenhouse gas emissions.

Goals:

Success will be measured in FY 1996 by collecting and analyzing data on atmospheric conditions to enable better assessments, damage prediction, and mitigation for ecosystems by:

- *designing, building, and testing an Atmospheric Radiation and Cloud Station (ARCS) in the Western Pacific by September 1996 to collect critical cloud and radiation data;*
- *completing atmospheric radiation measurements by June 1996 to verify enhanced absorption of solar radiation by clouds to improve the accuracy and predictive capability of global climate models;*
- *completing preparations to measure the absorption of CO_2 from the atmosphere by March 1996; and*
- *implementing experiments that quantify effects of changes in weather and air pollution on forests by June 1996.*

FY 1996 Results:

The first ARCS for the Tropical Western Pacific is being deployed in Papua, New Guinea, and data from the measurements taken at the ARM Southern Great Plains Site in Oklahoma to test the hypothesis of enhanced absorption of solar radiation by clouds are being analyzed. Continuous measurement of CO_2 fluxes between forests and the atmosphere were taken at two sites in the U.S., and a preliminary plan was drafted to expand measurements at other U.S. locations. The site was prepared and equipment purchased for a large-scale field exposure facility to be used to measure the responses of an aspen forest to elevated levels of ozone.

Continuing Peaceful Uses of the Atom

Continue cooperative efforts begun in 1973 for fundamental properties of matter, magnetic confinement fusion, nuclear reactor safety, environmental restoration, and nuclear waste management under the Peaceful Uses of Atomic Energy Agreement (PUAE).

Goals:

Continuing cooperation with Russia under the PUAE, even if the agreement is not formally extended.

Working with the State Department, National Security Council, and the Office of the Vice President to:

- *develop an interagency strategy by December 1995 for renewal of the PUAE agreement;*
- *extend the PUAE umbrella agreement for one year period beginning January 1996; and*
- *extend the four cooperative agreements under the PUAE for their full terms.*

FY 1996 Results:

The U.S. has continued cooperation with Russia under the PUAE, and three of the four cooperative agreements under the PUAE were signed in Vienna on September 16 by Secretary O'Leary and Russian Minister of Atomic Energy Viktor Mikhailov. These agreements are on: magnetic confinement fusion; environmental restoration and waste management; and nuclear reactor safety. We are working with Embassy Moscow in efforts to get the fourth Memorandum of Cooperation (MOC) on fundamental properties of matter signed.

The interagency strategy for renewal of the PUAE has been developed. The PUAE umbrella agreement has been extended as well as three of the four MOCs. DOE is now working to extend the fourth cooperative agreements under the PUAE.

Restructuring the Fusion Energy Research Program

Preserve the fusion energy science base and maintain fusion as a U.S. energy option for the future.

Goals:

Success will be measured in FY 1996 by incorporating the Fusion Energy Advisory Committee (FEAC) recommendations and finalizing the strategy by February 1996 to restructure the fusion energy research program to emphasize fusion energy science.

FY 1996 Results:

DOE has prepared a strategic plan for the restructured Fusion Energy Sciences Program which incorporates the FEAC recommendation that the fusion program be a science-based research program focusing on innovative solutions for and alternative approaches to fusion energy. The plan is in the final stage of concurrence.

Advancing the State-of-the-Art in High Performance Computing

Advance the state-of-the-art in high performance computing and apply these capabilities to DOE and national priorities, such as national security, environmental cleanup, world leadership in science and technology, and economic productivity.

Goals:

Completing a road map for development and deployment of advanced communications and computing technologies to create "National Collaboratives," as envisioned in the DOE 2000 initiative to improve research productivity.

FY 1996 Results:

Based on the feedback from workshops, as well as other outreach activities, a small working group is refining the road map, with the effort completed in FY 1996 and initial projects beginning in FY 1997. A grant is in place to develop a system of remote acquisition, central analysis, and distribution of energy information to a level of detail not previously available. Two additional grants have been initiated to improve electric utility service to customers. The road map for DOE 2000 initiative and a detailed execution plan for the first year are completed. Competition for the second phase of "Grand Challenges" program was undertaken to apply lessons learned in first phase and address significant new science problems related to the Department's missions. Competition awards were granted in early FY 1997.

Developing computational software, in collaboration with Electric Power Research Institute and others, for the President's National Information Infrastructure initiative, to improve energy supply and demand management for utility companies.

An effort was established at Lawrence Berkeley National Laboratory to develop a prototype system that permits remote monitoring and control of multiple commercial buildings from a single control center. Two grants have also been initiated with utilities during FY 1996 to address fundamental electric utility issues that will improve customer interaction.

Expanding Access to Global Science Through the Information Infrastructure

Facilitate open access to the Department's programmatic, scientific, and technical information by providing better communications with U.S. industry, academia, the scientific community, and the public. Capitalize on interagency and international collaborations to benefit the United States.

Goals:

Creating the following four new mechanisms for public access to global energy-related information, resulting in a 20 percent increase in service to customers, measured by surveys and programmed feedback for each product through:

- *listing of DOE scientific and technical information resources in a centralized government directory,*
- *the Openness Initiative Information, to be available through open systems networks by March 1996,*
- *electronic delivery of formerly printed products by June 1996, and*
- *30 percent increase in full text electronic access to R&D information by September 1996.*

FY 1996 Results:

By capitalizing on international and interagency collaborations and implementing Web-based and other electronic dissemination options for providing access and delivery, the Department supported U.S. interests by increasing service to its customers during FY 1996 by 90 percent, averaging an additional 27,000 accesses per month over the FY 1995 baseline.

Diversifying America's Science Workforce

Work with minority educational institutions to diversify and develop an effective scientific and technical workforce.

Goals:

Increasing awards to Historically Black Colleges and Universities, Hispanic-serving institutions, Native American, and other minority institutions from over $58 million in FY 1995 to over $100 million.

Showcasing research accomplishments and forging at least three cooperative research and development agreements and partnerships with minority educational institutions.

FY 1996 Results:

In FY 1996, the Department supported minority educational insitutions through grants and cooperative agreements in the amount of $50 million.

Partnerships with minority educational institutions were continued and new ones established, including:

- *An undergraduate cooperative education program in engineering was established at Howard University to advance the number of students pursuing degrees and careers in engineering.*
- *The Chair of Excellence Professorship in Nuclear Physics and Engineering at Morgan State University is to facilitate innovative research in nuclear physics and increase the number of minority nuclear physicist professionals.*
- *The Hemispheric Center for Environmental Technology was established at Florida International University to research, develop, and demonstrate innovative environmental technologies.*
- *The Southwest Center for Environmental Excellence and Opportunity was established at the Albuquerque Technical Vocational Institute to enable communities to participate in Departmental clean-up and waste management activities.*
- *The Puerto Rico Renewable Energy and Efficiency Center was established at the University of Puerto Rico-Mayaguez to conduct applied research and development to adapt and validate renewable energy and energy efficiency technologies.*

Educating Young Scientists

Use the science and technology at the national laboratories to increase knowledge, analytical thinking, and research capabilities of faculty and students through hands-on experience.

Goals:

Success will be measured by the participation of 5,000 undergraduate, graduate, postdoctoral students, and faculty in DOE science education programs at our national laboratories in FY 1996 that results in 40 percent of the participants showing an increase in knowledge and skills as measured by surveys developed in collaboration with other Federal agencies.

FY 1996 Results:

During FY 1996, DOE was able to accommodate over 5,000 students and faculty at its laboratories. Progress on the evaluation of the program's effectiveness has been slowed but is currently underway in conjunction with the National Science Foundation. DOE will be unable to accomplish measurement of the increase in knowledge because of funding-induced delays.

NATIONAL SECURITY ACTIVITIES - effectively support and maintain a safe, secure, and reliable enduring stockpile without underground nuclear testing; safely dismantle and dispose of excess weapons; and provide technical leadership for national and global nonproliferation activities.

		(in millions)
Weapons Activities		
Stockpile Stewardship	$1,366	
Stockpile Management	1,573	
Weapons Program Direction	122	
Subtotal		$3,061
Nonproliferation and National Security		
Verification and Control Technology	349	
Nuclear Safeguards and Security	93	
Security Investigations	37	
Emergency Management	21	
Fissile Materials Disposition	62	
Worker and Community Transition	84	
International Nuclear Safety and Security	1	
Naval Reactors	669	
Subtotal		1,316
TOTAL		**$4,377**

Weapons Activities

Stockpile Stewardship - research, development, and engineering support necessary to maintain a safe and reliable U.S. nuclear weapons stockpile which requires sustaining core competencies, nuclear weapons laboratories, and the Nevada Test Site.

Stockpile Management - physical maintenance of the U.S. nuclear weapons stockpile, including: continual surveillance and retirement and disposal of weapons; pursuing a dual-track new tritium source; maintaining a worldwide nuclear/radiological accident response capability; and providing safeguards/security oversight for special nuclear materials.

Weapons Program Direction - management and administration of weapons activities, including personnel, site, and contractual costs.

Nonproliferation and National Security

Verification and Control Technology - conduct Comprehensive Test Ban research and development, including arms control treaty verification, intelligence collecting, and processing; support Presidential arms control and nonproliferation initiatives; and provide intelligence support in assessing nuclear threats.

Nuclear Safeguards and Security - provide direction and training for protection of nuclear weapons, nuclear materials, classified information, and facilities, including related technology development and directing classification and declassification activities.

Security Investigations - support of background investigations for both Federal and contractor personnel at DOE facilities.

Emergency Management - control and direction to ensure comprehensive and integrated planning, preparedness, and response capability for emergencies involving DOE operations or facilities.

Fissile Materials Disposition - provide safe, secure, environmentally sound, and inspectable long-term storage of weapons-usable fissile materials; disposal of surplus highly enriched uranium and plutonium; and technical support for U.S. initiatives to reduce foreign surplus of weapons-usable plutonium.

Worker and Community Transition - mitigate adverse impact on workers and communities resulting from restructuring, including local economic assistance for job-base conversion.

International Nuclear Safety and Security - reduction of national security and environmental threats related to unsafe and aging nuclear facilities worldwide; assist in Soviet designed nuclear power plant safety upgrades; and promote international cooperative nuclear safety research and development.

Naval Reactors - design, development, testing, and production of safe, long-lived, militarily-effective nuclear power plants for U.S. Navy ships and submarines, including over 120 operating reactors in nine different operational classes.

Performance Measures

Replacing Underground Testing with Science

Redirect the DOE weapons programs to maintain confidence in the enduring stockpile through the science-based Stockpile Stewardship Program.

Goals:	*FY 1996 Results:*
Developing the Accelerated Strategic Computing Initiative (ASCI) Implementation Plan by April 1996 to improve simulation capabilities.	*The ASCI Implementation Plan was approved in August 1996. Delay will not impact the overall schedule for completing ASCI.*
Demonstrating the Los Alamos Neutron Scattering Center's (LANSCE) concept of fast neutron radiography of weapons systems to detect small scale (2-3 mm) defects by September 1996.	*The LANSCE demonstration was completed on schedule in September 1996.*
Developing a new annual certification process with the National Security Council.	*The new annual certification process was completed. The first annual report is expected to be submitted in November 1996.*
Completing an integrated program plan for stockpile stewardship and management by March 1996.	*An integrated program plan for stockpile stweardship and management was submitted to Congress in April 1996.*
Conducting enhanced nonnuclear experiments on existing stockpile weapons and improving predictive techniques to repair or replace aging weapons.	*The enhanced nonnuclear experiments were completed.*

Maintaining Reliability of the Future Stockpile

Develop a replacement source for tritium to ensure the U.S. nuclear weapons stockpile remains reliable.

Goals:	*FY 1996 Results:*
Publishing the final Programmatic Environmental Impact	*The final Programmatic EIS was published in November*

Statement (EIS) in November 1995 and the Record of Decision (ROD) in December 1995 in support of a new tritium production source.	*1995, and the ROD was completed in December 1995 as planned.*
Selecting a prime contractor for the accelerator design by September 1996.	*The contract for the accelerator design was awarded in September 1996.*
Issuing a request for proposal for supplying tritium through commercial reactors or irradiation services.	*Release of the request for proposal has been rescheduled to FY 1997 to provide additional time to understand and resolve issues associated with government-owned commercial reactors. Rescheduling will not impact the overall ability of the commercial light water reactor path to deliver tritium as required in FY 2005.*

Determining the Future Size and Scope of the Nuclear Weapons Complex

Decide on the appropriate size and scope of the nuclear weapons complex.

Goals:	*FY 1996 Results:*
Issuing the draft Programmatic EIS for stockpile stewardship and management in February 1996.	*The draft Programmatic EIS for stockpile stewardship and management was issued on schedule in February 1996.*
Issuing the final Programmatic EIS for stockpile stewardship and management in June 1996.	*The final Programmatic EIS for stockpile stewardship and management was issued in November 1996. The delay reflects the need to accomplish litigation risk assessment associated with document.*
Issuing the ROD on stockpile stewardship and management in August 1996.	*The ROD on stockpile stewardship and management was signed in December 1996.*

Designing and Choosing a Potential Site for the National Ignition Facility (NIF)

Design and select a site for an above-ground experimental physics facility to simulate on a small scale the conditions during a nuclear weapons detonation in order to maintain confidence in the enduring nuclear weapons stockpile. Decide whether to request funding to proceed with the construction of the facility.

Goals:	*FY 1996 Results:*
Completing the nonproliferation assessment by December 1995.	*The Nonproliferation Assessment was completed on schedule in December 1995.*
Finishing the preliminary design by September 1996.	*The Title I Design for the NIF building is making expected progress. A three month delay in FY 1996 funding caused a one month delay in completion of design for laser equipment. We will continue to maintain the schedule to support the start of site production activities in March 1997.*
Deciding on the specific site for construction of the NIF as part of the ROD for stockpile stewardship and management.	*The ROD for Stockpile Stewardship and Management, including a decision on a specific site for construction of NIF at Lawrence Livermore National Laboratory, was signed in December 1996.*

Assisting Russia and NIS in Improving the Security of Nuclear Materials

Work with Russia and the Newly Independent States (NIS) to improve material protection, control, and accounting (MPC&A) activities at nuclear facilities that contain weapons-usable nuclear material. Develop with their scientists MPC&A equipment suitable for mass production and use in their nuclear complexes. Work with national authorities in instituting and standardizing MPC&A activities (civilian and military).

Goals:	FY 1996 Results:
Expanding MPC&A upgrades at the 26 facilities currently underway, adding additional facilities to be upgraded, and including Russian-manufactured personnel security equipment in these upgrades.	*MPC&A cooperation is now underway at over 40 locations in Russia, the NIS, and the Baltics. At most of these sites, work has progressed from the initial site survey done by DOE MPC&A teams to signing umbrella agreements for individual work contracts to purchase, deliver, and install MPC&A equipment. An expansion of current operations to include all weapons-usable nuclear material within each location is planned.*
Initiating MPC&A training for Russian national regulatory authorities from each region and beginning procurement of equipment for the Russian nuclear regulatory authority inspections by May 1996.	*GAN and Minatom will use the Russian Methodological Training Center (RMTC) at Obinsk to train operators, instructors, and inspectors. Procurement of equipment for laboratory training was completed in March 1996. The laboratory became operational in May 1996. DOE will continue to assist in defining requirements for MPC&A equipment and procuring and providing training in the use of the equipment for GAN inspectors.*
Developing the foundation for the preliminary design for a national Russian nuclear materials accounting system by July 1996.	*The first joint meeting to design a national Russian nuclear materials accounting system was held in Washington in February 1996. Two-week workshops were held at Oak Ridge National Lab in April 1996 to review the U.S. national MPC&A system. As a result of this workshop, the joint project team has begun the process of defining requirements for the Russian national nuclear materials accounting system. The work plan calls for a preliminary requirements analysis to be completed by the end of October 1996.*

Limiting Weapons-Usable Fissile Materials Worldwide

Promote alternatives to the civilian use of plutonium (Pu). Eliminate the civilian use of highly enriched uranium (HEU). Reduce stockpiles of HEU and Pu. Initiate regional fissile material control activities. Assist the shutdown of Russian Pu production reactors. Negotiate an international convention to end the production of fissile material for weapons purposes.

Goals:	FY 1996 Results:
Recommending a preferred alternative regarding the acceptance of spent fuel from foreign research reactors by October 1995, issuing the EIS in November 1995, and issuing the ROD in January 1996.	*DOE issued a ROD regarding the acceptance of spent research reactor fuel on May 13, 1996. The first spent fuel shipments were received in September 1996.*
Working with the German government to redesign the planned FRM-II research reactor to use low enriched uranium (LEU).	*DOE issued a report in January 1996 detailing its offer to assist in the redesign of the FRM-II research reactor in Germany. While not accepted by German officials, DOE demonstrated that use of LEU in the FRM-II was feasible.*

Supporting the June 1994 Gore-Chernomydrin Commission agreement to shut down the Russian Pu production reactors in Tomsk-7 and Krasnoyarsk-26 by the year 2000. Complete technical analyses on nuclear replacement power options by December 1995 and an analysis of fossil fuel replacement power options by July 1996.	*The technical analysis on nuclear replacement power options and a core conversion feasibility study were completed by December 1995. The analysis of fossil fuel replacement power options for Zheleznogorsk was completed in September 1996, and the analyses for Tomsk and Seversk are expected to be completed by December 1996.*

Strengthening the Nuclear Nonproliferation Regime

Promote adherence to the Nuclear Non-Proliferation Treaty. Increase the effectiveness and efficiency of the International Atomic Energy Agency (IAEA). Conclude successful negotiation of a Comprehensive Nuclear Test Ban Treaty. Facilitate IAEA inspections of excess fissile materials. Promote regional nonproliferation measures.

Goals:	*FY 1996 Results:*
Providing direct technical assistance for IAEA inspections in North Korea and Iraq.	*U.S./DOE experts have participated as team members in several IAEA inspections in Iraq, have served at the Baghdad Monitoring Center, and are on detail to UNSCOM and IAEA Action Team. Customized emergency diesel generators to provide emergency back-up power for IAEA monitoring equipment were delivered to Nyongbyon, North Korea in April 1996.*
Implementing 11 agreements for safeguards cooperation between DOE and foreign governments or organizations (Argentina, Australia, Brazil, EURATOM, France, Germany, Japan, South Korea, United Kingdom, IAEA, and ABACC).	*Safeguards cooperation between EURATOM and DOE is on track. The safeguards agreement with Brazil was completed. The feasibility safeguards system for South Korean DUPIC process was confirmed. DOE is developing and testing remote monitoring systems which could increase IAEA safeguards confidence and reduce inspection costs with 14 international partners.*
Beginning IAEA inspections of excess plutonium at Rocky Flats by December 1995, bringing the amount of excess fissile material under IAEA safeguards to approximately 12 metric tons.	*The IAEA Rocky Flats inspection took place in December 1995. Monthly inspections are occurring. IAEA inspections at Oak Ridge and Hanford are continuing, in addition to the inspection at Rocky Flats.*
Placing 13 metric tons of U.S. highly enriched uranium (HEU) hexafluoride (part of the 200 metric tons of U.S. weapons-grade material declared excess by the President) under IAEA safeguards by the second quarter of FY 1996.	*The 13 metric tons of excess HEU that is being blended down at the Portsmouth Gaseous Diffusion Plant was made eligible for IAEA safeguards in April 1996 and is now expected to be placed under IAEA safeguards by September 1997.*
Blending at least four metric tons of weapons-grade uranium down to commercial levels by September 1996.	*As of September 30, 1996, less than one metric ton of uranium had been re-fed due to United States Enrichment Corporation controls placed on the rate of HEU refeeding to improve operations.*

Controlling Nuclear Exports

Assist the international community in effectively controlling exports and establishing responsible supplier policies. Implement U.S. statutory licensing requirements for nuclear export controls. Encourage adherence to the Nuclear Suppliers Guidelines. Strengthen multilateral supplier initiatives. Foster transparency through automated information sharing and analysis. Advance nonproliferation objectives through technology security.

Goals:	FY 1996 Results:
Adopting the Nuclear Suppliers Group (NSG) Information Sharing System at the April 1996 Nuclear Suppliers Group Plenary Meeting in Buenos Aires.	*NSG agreed that the implementation of a DOE developed information sharing system should continue to be encouraged. The NSG has requested an implementation plan by October 1996.*
Enlisting new signatories to the Nuclear Suppliers Guidelines: China, Brazil, Ukraine, and Turkey by April 1996.	*In April 1996, Ukraine and Brazil were admitted to the NSG. Contacts with the Chinese were unfruitful.*
Completing technical reviews of three non-sensitive fuel cycle technologies which trigger multilateral nuclear export controls and seeking formal adoption of a revised list at the May 1996 meeting of the Nonproliferation Treaty Exporters Committee (NTEC).	*The U.S. presented its final review of the Trigger List technologies concerning nuclear reactors, non-nuclear materials, and fuel fabrication to the NTEC for adoption. Final adoption took place in October 1996.*
During FY 1996, expanding to four additional countries training in strategic material identification and illicit trafficking prevention in order to improve export control systems in Russia, the other Newly Independent States, and Eastern Europe.	*In March 1996, in conjunction with U.S. Customs Service, Czech and Slovak Republics border enforcement personnel were trained in nonproliferation. Conducted assessments in Poland and Hungary with U.S. Customs of country laws and enforcement training to interdict smuggling of strategic, sensitive nuclear and nuclear dual-use commodities.*

Enhancing the Safety of Soviet-Designed Reactors

Increase the safety of Soviet-era nuclear power plants in countries of Central and Eastern Europe and the Newly Independent States.

Goals:	FY 1996 Results:
Success will be measured in FY 1996 by the Department continuing to increase the operational safety of Soviet-designed nuclear power plants and enhancing the safety cultures in the countries that operate them by:	
- *Completing draft emergency procedures for all four types of Soviet-era nuclear plants,*	*Ninety percent of the emergency procedures have been drafted. Some of the remaining drafts are contingent upon completing additional analytical calculations. Technology transfer, which is the essential element of the project, has been completed. Western-style procedures, which will improve the capability of plant operators to prevent or minimize accidents, have been successfully implemented at the Novovoronezh nuclear plant in Russia.*
- *Improving training of power plant operators by providing training simulators for five nuclear power plants and training 150 plant staff through seven operator exchange visits by the end of FY 1996,*	*Six contracts for simulators were completed, and one simulator was provided to the Russian manufacturer for subsequent delivery to the Khmelnytskyy nuclear plant in Ukraine. 150 plant operators were trained through operator exchange visits. In addition, eleven operator and maintenance pilot training programs and six special training courses have been developed and implemented. As of October 1996, 800 staff members from Soviet-designed nuclear plants had been trained.*
- *Assisting the nuclear regulator in Ukraine by completing the training on licensing dry casks for spent fuel storage by June 1996 and in Russia by providing key U.S. DOE safety documentation for large research reactors and fuel cycle facilities and by completing several technical workshops by October 1996, and*	*Training of the Ukrainian nuclear regulator on licensing of dry casks for spent fuel storage was completed. The safety documentation was provided, and six technical workshops were held.*

- *Improving performance of safety systems at four nuclear power plants by installing fire detection systems and removing fire hazards by installing DC power supplies and by providing an emergency water supply system by September 1996.*	*The Department has provided emergency power and water supplies, fire detection and fire-fighting equipment, isolation valves, and other safety equipment at five of the oldest, least-safe, nuclear power plants.*

Assisting in the Shutdown of the Chornobyl Nuclear Power Plant

Facilitate the closure of the Chornobyl nuclear power plant in Ukraine and reduce safety risks during the plant's remaining operating period.

Goals:	*FY 1996 Results:*
Providing improved fire safety and other safety equipment, completing a joint U.S./Ukrainian risk assessment of operating Chornobyl Unit 3, and preparing a preliminary decommissioning plan for Units 1 through 3.	*Fire safety and other safety equipment was provided by September 1996. A draft assessment of risks to Unit 3 due to a potential collapse of Unit 4 was completed in September 1996. A preliminary decommissioning plan for Units 1, 2, and 3 is being prepared.*
Establishing the International Nuclear Safety and Environmental Research Center at Slavutich, Ukraine, near Chornobyl by April 1996 to coordinate nuclear safety research.	*In April 1996, the newly-named International Chornobyl Center on Nuclear Safety, Radioactive Waste, and Radioecology was established. Since the Center's inception, the U.S. and Ukraine have implemented a number of projects associated with reactor safety, hazards management, spent fuel and low-level radioactive waste management, and data collection and analysis for safety assessments.*
Transferring dry cask spent fuel storage technology, including three casks and a transporter, to Ukraine and evaluating Ukraine's spent fuel management and disposal requirements and options by September 1996.	*All hardware, except for cask liners, has been shipped to the Zaporizhzhya nuclear plant in Ukraine. A detailed work plan for developing Ukrainian spent fuel management and disposal requirements was completed.*

Managing Workforce Restructuring

Assure fair treatment of workers and communities affected by changing DOE missions through a cost-effective workforce restructuring process that allows an average cost per separation of $25,000. The workforce restructuring since 1994 will result in a total savings of $3 billion per year.

Goals:	*FY 1996 Results:*
Limiting the involuntary separation of prime contractor employees due to workforce restructuring to 20-33 percent by sponsoring voluntary separation, transfers, and retraining.	*Involuntary separations still comprise slightly over 25 percent of all separations. Given increasing budgetary pressures, changing missions, and other DOE contractor activities, it is uncertain whether the 33 percent performance measure is viable after FY 1996.*
Ensuring reemployment of at least 60 percent of separated workers seeking new jobs by sponsoring community-based businesses, career assistance programs, further education, and retraining programs.	*Results of DOE's Displaced Worker Survey indicate that 64 percent of those seeking employment made use of career assistance through outplacement centers, and 60 percent had obtained either full or part-time employment.*
Ensuring that at least 66 percent of the affected workers are satisfied with DOE's workforce restructuring process.	*In DOE's Displaced Workers Survey for FY 1995, over 62 percent were either satisfied or very satisfied with their treatment.*
Establishing a workforce planning system with a database on workers' abilities by September 1996.	*Work is continuing on the Work Force Information System (WFIS) which will contain a database on workers' abilities. The WFIS should be fully operational by mid-FY 1997.*

Establishing a Departmental policy for the treatment of contractor employees affected by organizational changes such as contract reform, privatization, and outsourcing.

The Office of Worker and Community Transition's role on establishing a Departmental policy has been superseded by the Department-wide Privatization Working Group (PWG). The Office is represented on the PWG and provides input on workforce activities.

ENVIRONMENTAL QUALITY ACTIVITIES - understand and reduce environmental, safety, and health risks and threats and develop the technologies and institutions required for solving domestic and global environmental problems.

		(in millions)
Environmental Management		
Environmental Restoration	$1,451	
Waste Management	2,353	
Nuclear Materials and Facilities Stabilization	1,443	
Science and Technology Development	366	
Landlord Functions	96	
Program Planning and Management	101	
Uranium Enrichment Decontamination and Decommissioning	279	
Subtotal		$6,089
Environment, Safety, and Health (ES&H)		
ES&H Activities - Non-Defense	81	
ES&H Program Direction - Non-Defense	46	
ES&H Activities - Defense	56	
ES&H Program Direction - Defense	12	
Subtotal		195
Civilian Radioactive Waste Management		345
Net Change in Funded Environmental Liability		(414)
TOTAL		**$ 6,215**

Environmental Management

Environmental Restoration - in accordance with Federal and State laws and other legal agreements, protects human health and the environment from risks posed by inactive, surplus DOE facilities and contaminated areas; remediation activities, including both cleaning-up or containment of contamination including soil, ground water, and surface water; and the decommissioning of contaminated facilities including reactors and chemical processing buildings.

Waste Management - encompasses safe treatment, storage, and disposal of waste from operations. The different categories of waste by this program include high-level, transuranic, mixed transuranic, low-level, mixed low-level, uranium mill tailings, hazardous, sanitary, and special case waste.

Nuclear Materials and Facilities Stabilization - consists of: stabilizing, consolidating, and storing special nuclear materials, including plutonium and highly enriched uranium prior to final disposition; deactivating surplus facilities to a safe and low maintenance condition while awaiting final decommissioning; and managing spent nuclear fuel, including treatment and storage. Integral to these functions is continuous surveillance and maintenance, which is required for safety and security.

Science and Technical Development - research and development of new more effective and less expensive technological remedies to the environmental and safety problems of the Environmental Management Program. The new technologies are necessary to reduce risks to humans and the environment, reduce cleanup cost, and resolve significant related problems for which no solutions currently exist.

Landlord Functions - crosscutting, site-wide infrastructure support, such as electrical systems, laboratory support, road maintenance and upgrades, fire protection, quality assurance, safety and environmental monitoring, sanitary sewer systems, laundry services (for contaminated clothing and materials), utilities, and site security at installations where environmental management activities are performed.

Program Planning and Management - national planning, management, and oversight of the Environmental Management Program performed at Headquarters. The functions include establishing policy, program reviews, budget preparation, Federal and Congressional liaison, safety oversight, performance tracking, and coordinating national stakeholder interactions.

Uranium Enrichment Decontamination & Decommissioning (D&D) - consists of remedial action and other related environmental clean-up activities at sites leased and operated by the United States Enrichment Corporation, including DOE facilities at these sites, and, additionally, provides for partial reimbursement of remediation costs attributable to other uranium and thorium purchased by the Federal government.

Environment, Safety, and Health (ES&H)

ES&H Activities - Non-Defense - provides Departmentwide technical support in areas of nuclear safety, occupational health and safety, environmental compliance, and health studies, including the National Environmental Policy Act (NEPA), Radiation Effects Research Foundation (RERF), safety assistance, and environmental compliance implementation assistance.

ES&H Program Direction - Non-Defense - management and administration of non-defense activities, including associated personnel, travel, and support costs.

ES&H Activities - Defense - provides independent oversight and technical assistance for environment, safety, health, safeguards, and security at the Department's defense related facilities, including related oversight and health studies.

ES&H Program Direction - Defense - management and administration of defense related activities, including associated personnel, travel, and support costs.

Civilian Radioactive Waste Management (CRWM) - development and management of a permanent Federal disposal facility for spent nuclear fuel from civilian reactors and high-level radioactive waste from atomic energy defense activities in a manner that assures public and worker safety and protects the environment.

Net Change in Funded Environmental Liability - annual adjustment made to account for the net change between beginning and ending balances in DOE's funded environmental liabilities. During

FY 1996, the funded environmental liability decreased by $414 million, representing expenditures made by DOE in excess of the FY 1996 appropriation for environmental quality activities.

Performance Measures

Making Progress on Mixed Waste Treatment

Continue working with state and Environmental Protection Agecy regulators to reach agreements and implement plans to treat sites with low level mixed waste.

Goals:	*FY 1996 Results:*
Reaching agreements at seven remaining sites by December 1995.	*DOE has completed its activities related to the remaining seven agreements. Four agreements have been signed. The Department submitted all Site Treatment Plans to the regulators. The regulators bear responsibility and control the schedule for finalizing Plans and orders for the remaining three sites.*
Meeting the 130 milestones for FY 1996 for waste characterization and treatment activities, including: - *awarding a contract for privatized treatment of certain waste streams at the Oak Ridge Reservation and the Hanford site,*	*Low-level mixed waste sludge has been successfully treated during a technology and process qualification Phase I at Oak Ridge. A contract to demonstrate the reliability, safety, and cost-effectiveness of the Quantum-CEP™ technology for processing DOE's mixed waste was awarded in the fourth quarter of FY 1996. The broad spectrum contract will be awarded in the fourth quarter of FY 1997. Hanford awarded the mixed waste contract in November 1995. Treatment of 30,000 drums begins in the year 2000. The contractor is pursuing the Resource Conservation and Recovery Act permit.*
- *requesting proposals for an advanced mixed waste treatment facility at the Idaho National Engineering Laboratory,*	*A feasibility assessment for the Advanced Mixed Waste Treatment Privatization project at Idaho was completed in 1995. A Request for Proposals was released in January 1996. A contract was awarded in December 1996.*
- *starting operations of the Consolidated Incineration Facility (CIF) at the Savannah River Site, and*	*Preliminary startup testing and a pre-trial burn at the CIF at the Savannah River Site was conducted in late 1995. A number of problems were identified during that process which required the schedule for startup of the CIF to be modified. Physical modifications necessary to operate CIF were completed in December 1996, and the facility is currently in the startup testing phase.*
- *treating more than 180,000 cubic meters of mixed waste.*	*Through FY 1996, the Department tracked to a baseline inventory of 85,423 cubic meters of low-level mixed waste (LLMW). Through September 30, 1996, LLMW additions to inventory were 17,214 cubic meters, reductions were 33,763 cubic meters, and disposed was 8,690 cubic meters. The current inventory is 59,710 cubic meters of LLMW, a 30 percent reduction in inventory.*

Shutting Down and Cleaning Up Surplus Non-Weapons Nuclear Reactor Sites

Safely deactivate surplus nuclear facilities, including the Fast Flux Test Facility (FFTF) reactor in Washington and the Experimental Breeder Reactor-II (EBR-II) in Idaho, and prepare wastes for interim storage and ultimate disposition.

Goals:	*FY 1996 Results:*
Completing critical steps to deactivate the FFTF by:	
- *washing and packaging 56 of 382 FFTF spent fuel assemblies into interim storage casks and placing the casks in secure storage by September 1996, and*	*Washed and packaged 63 of 382 FFTF spent fuel assemblies into interim storage casks and placed the casks in secure storage.*
- *removing fresh fuel and eliminating unneeded security at the FFTF by September 1996, thus saving $500,000 annually.*	*Because of the Department's on-going consideration of the FFTF as a potential tritium supply source, the fresh fuel was not removed from the facility, and the associated safeguards and security were not eliminated as scheduled in the shutdown program.*
Completing critical steps to deactivate the EBR-II by:	
- *completing 86 percent of the EBR-II fuel removal by September 1996. All fuel will be removed from the reactor by December 1996, and*	*89 percent of EBR-II fuel was removed by the end of September 1996.*
- *completing modification of the Sodium Processing Facility by September 1996 to stabilize coolant drained from the EBR-II.*	*The Sodium Processing Facility at Argonne National Laboratory -West was completed in November 1996.*

Ensuring Environmental Justice

Implement the Department's plan to reduce disproportionate negative impacts of our operations and facilities on low-income and minority communities by accelerating waste management, pollution prevention, and environmental remediation activities.

Goals:	*FY 1996 Results:*
Increasing the removal of organic solvents from soil and groundwater within the "A/M" area of the Savannah River Site by 74 percent by September 1996.	*By deploying three new technologies (mechanical soil vapor extraction, barometric pumping and pure phase extraction), a 75 percent increase in the removal of organic solvents was achieved, and over 90,000 pounds of organic solvents were removed from soil and groundwater within the "A/M" area of the Savannah River Site.*
Initiating construction of an interim cap to prevent the migration of contaminants from the Old Burial Ground at the Savannah River Site by September 1996.	*Construction of an interim cap over the Old Burial Ground to prevent migration of contaminants was initiated early due to expeditious regulatory review and approval of the proposed action at the Savannah River Site.*
Initiating clean up activities near the East Fork Poplar Creek community at the Oak Ridge Site by April 1996.	*Phase I of the cleanup near the East Fork Poplar Creek community at the Oak Ridge Site is in process, and Phase II, which involves the cleanup of 25,000 cubic yards of soil, will be initiated in May 1997 with completion scheduled for September 1997.*
Implementing an environmental justice communications strategy plan for affected communities.	*A prototype framework is being developed to enhance intra-Departmental communications for environmental justice. It includes health-related aspects of subsistence-related risk communications with communities engaged in*

	subsistence consumption through a tri-annual Subsistence and Environmental Health Newsletter for which the Spring and Summer editions have been disseminated, and the Fall edition was distributed in October 1996.

Preventing Future Pollution

Implement pollution prevention programs that pay for themselves through productivity gains and the avoidance of future waste management costs.

Goals:	*FY 1996 Results:*
Issuing pollution prevention performance measures and waste reduction goals by March 1996 to be achieved by the year 2000.	*In May 1996, the Secretary issued her Departmental pollution prevention goals and 1996 Pollution Prevention Program Plan. The latter document contains performance measures.*
Ensuring that half of DOE's purchases of Environmental Protection Agency designated products contain recycled or recovered materials.	*DOE has issued a series of informational and guidance memoranda to the field. DOE has stressed that 50 percent of DOE purchases include recycled or recovered material. The roll-up of field performance data will allow for the ultimate assessment as to whether this goal has been achieved. Data will be available by January 15, 1997.*
Initiating 20 additional projects in FY 1996 that will yield net savings of at least $30 million over a three year period.	*Twenty projects were initiated in March 1996 at a total cost of $6 million. The total annual savings projected from the implementation of these projects is $19.5 million.*
Completing analysis and issuing a report by March 1996 concerning the contamination resulting from each step of nuclear weapons production to prevent future generation of waste.	*A report entitled "Linking Legacies", which concerns the contamination resulting from each step of nuclear weapons production to prevent future generation of waste, was released at the January 15, 1997, Openness Initiative Press Conference. The deadline of March 1996 was not met because of severe staff cutbacks and competing projects.*

Reducing Serious Vulnerabilities

Complete Highly Enriched Uranium (HEU) Vulnerability Study to identify environment, safety, and health (ES&H) vulnerabilities.

Goals:	*FY 1996 Results:*
Success will be measured by reducing the number of unaddressed serious HEU vulnerabilities at DOE facilities to zero.	*Approximately 155 serious ES&H vulnerabilities were identified by the Highly Enriched Uranium Vulnerability Assessment, completed in FY 1996. Some were immediately fixed, and all are being addressed by corrective action plans.*

Institutionalize a Multi-Disciplinary Oversight Process

Institutionalize a multi-disciplinary, fully integrated oversight process for evaluating ES&H and safeguards and security programs.

Goals:	*FY 1996 Results:*
Completing value-added, comprehensive oversight evaluations, focusing on ES&H-management systems at seven DOE sites.	*Comprehensive, multi-disciplinary ES&H oversight evaluations have been completed for seven DOE sites during FY 1996.*

ENERGY RESOURCES ACTIVITIES - encourage energy efficiency; advance alternative and renewable energy technologies; increase energy choices for all consumers: assure adequate supplies of clean, conventional energy; and reduce U.S. vulnerability to external energy supply disruptions.

		(in millions)
Energy Efficiency and Renewable Energy		
Solar and Renewable Resource Programs	$296	
Energy Efficiency Programs	885	
Subtotal		$1,181
Fossil Energy		
Coal Research and Development (R&D)	165	
Petroleum R&D	68	
Gas R&D	124	
Fossil Energy R&D Supporting Activities	61	
Fossil Energy R&D Program Direction	12	
Clean Coal Technology	251	
Strategic Petroleum Reserve	159	
Subtotal		840
Nuclear Energy		
Nuclear Energy R&D	191	
Termination Costs	71	
Isotope Production and Distribution	27	
Uranium Supply and Enrichment Services	107	
Subtotal		396
Other		78
TOTAL		**$2,495**

Energy Efficiency and Renewable Energy

Solar and Renewable Resource Programs - research and development of efficient, reliable, and environmentally sound renewable energy technologies for buildings, industrial, transportation, and utility economic sectors, including related advanced energy systems utility grid integration.

Energy Efficiency Programs - research and development of energy efficiency technologies in buildings, industrial, transportation, and utility economic sectors and additionally providing technical and financial support through grants to State and local governments and others.

Fossil Energy

Coal Research and Development - research and development (R&D) of coal technologies to meet future national energy and environmental demands and to position the U.S. coal industry to respond to growing export market opportunities while maintaining our national energy security.

Petroleum R&D - research and development of increased domestic oil production technology, enhanced processing and utilization technologies, and reservoir life extension.

Gas R&D - research and development of natural gas exploration, production, processing, and storage technologies.

Fossil Energy R&D Supporting Activities - crosscutting program activities, including environment, safety and health, cooperative research, materials research, and related essential fuels programs.

Fossil Energy R&D Program Direction - program management and administration, including personnel and contract support costs.

Clean Coal Technology - joint Federal and private industry development of promising advances in coal-based technologies and demonstration of commercial marketplace potential.

Strategic Petroleum Reserve - operation and maintenance of the U.S.'s emergency stored oil supply at five sites in Texas and Louisiana.

Nuclear Energy

Nuclear Energy R&D - research and development of commercial nuclear power, including universities, space, and defense applications and international nuclear safety collaborations.

Termination Costs - complete, effective, and radiologically safe shutdown of formerly used Federal nuclear research facilities.

Isotope Production and Distribution - production and distribution of radioactive and stable isotope products and related services.

Uranium Supply and Enrichment Services - economically supplies safe, environmentally-sound nuclear products and services and addresses crucial domestic and international uranium processing issues.

Performance Measures

Designing and Delivering Cars of the Future

Lead the design team, of the multi-agency and industry Partnership for a New Generation Vehicle, with the goal of developing an 80 mile-per-gallon family car. Deliver the individual technologies in new car models as they are proven effective and demonstrate a prototype car of the future by 2004.

Goals:	*FY 1996 Results:*
Delivering fuel cell, battery, turbocharger, generator, and diesel prototype technologies for demonstration, testing, and pilot production.	*Each of the five technologies is at least in laboratory bench testing.*
Adding the final "engine" project partnership, and completing the planned R&D team and portfolio needed to design and build the prototype family car.	*The final engine partnership with Chrysler was added in March.*
Adding 15,000 alternative fuel vehicles to the existing 27,000 car fleet in 50 Clean Cities, including 15 new cities this year. The new vehicles will reduce annual oil imports by an additional 4 million gallons, increasing the program savings to 11 million gallons a year.	*This goal was exceeded when the fifty-first city was added in October.*

Boosting the Nation's Production of Natural Gas and Oil

Improve the capability of the nation's petroleum industry to produce additional supplies of secure, domestic natural gas and oil, increasing U.S. gas and oil production by an average of 1 million barrels per day (oil equivalent) during the 2001 - 2010 period.

Goals:	FY 1996 Results:
Demonstrating and/or transferring to industry, using national lab expertise, at least six new geophysical imaging technologies that will improve exploratory well success rates from a current average of 40 percent to 50 percent.	*Prototype devices for five geophysical imaging technologies have been completed and are undergoing field trials, and one technology has been commercialized. The exploratory well success rate has improved to 48 percent for the first four months of 1996, and continued improvements are expected as new geophysical technologies, including those developed by DOE, are adopted by industry. The total FY 1996 results will not be available until the end of March 1997.*
Demonstrating at least five new data processing and simulation methods for applying advanced computing technology developed by national laboratories for other government programs to improve domestic prospects for producing natural gas and oil.	*The five projects are expected to successfully complete interim products with FY 1995 carry-over funds. However, continued progress toward the commitment to increase U.S. oil and gas production by 1 million barrels starting in 2001 is at risk because of major budget cuts announced after publication of the Performance Agreement. Accomplishments to date include: computer code that provides a three-fold acceleration for parallel processing of subsalt seismic data; multiphase fluid simulator for underbalanced drilling; publications on prototype computer model to predict geopressured reservoirs; prototype data server available on the Internet; and synthetic seismic data sets for a subsalt structure and an overthrust structure available for industry use in calibrating processing systems.*

Reducing U.S. Vulnerability to Energy Supply Disruptions

Ensure by the year 2000 the readiness of the Strategic Petroleum Reserve (SPR) to draw down 563 million barrels (MMB) of crude oil at a sustainable rate of 4.2 MMB/day within 15 days of receiving direction from the President.

Goals:	FY 1996 Results:
Degasifying an additional 61 million barrels of inventory to increase drawdown capability from 3.2 to 3.4 MMB/day and inventory availability to 510 MMB.	*After commitment/measures were put in place, final decisions were made to move oil from Weeks Island and to finance this and deficit reduction by selling oil. This decision, coupled with a new requirement to degas 33 MMB of Weeks Island oil after moving it, reduced the planned inventory available for drawdown at the end of FY 1996 from 510 to 459 MMB, and the SPR total shown in the commitment from 585 to 574 MMB. Since these events were beyond program control, success is measured below against the 459 MMB level.* *An additional 68 MMB of inventory was degassified, thereby exceeding the projected 61 MMB and increasing drawdown capability from 3.2 to 3.4 MMB per day. Inventory available for drawdown was 466 MMB versus the revised success measure of 459 MMB.*

Initiating an additional 22 percent of the infrastructure life extension program, thereby completing nearly half of the program.	*An additional 20 percent of the infrastructure life extension program was initiated, bringing implementation to 46 percent towards extending SPR facility and systems capability with a high level of reliability and operating cost efficiency to the year 2025.*
Completing transfer or sale of 80 percent of 72 MMB of oil from the Weeks Island storage site to a more geologically stable site ensuring the availability of this oil.	*The removal of approximately 88 percent of 72 million barrels of oil from Weeks Island storage site was accomplished, thereby exceeding the 80 percent success measure and ensuring the availability of this oil for drawdown. Also included was the successful sale of 18 MMB to finance decommissioning and general budget deficit reduction.*

Developing the Clean, High Efficiency Power Plant of the 21st Century

Provide the nation's electric power industry from 2000 to 2010 with a new generation of natural gas and coal power technologies that progressively reduce CO_2 emissions by 30 to 50 percent, lower SO_2 and NOx emissions to as little as 1/10th of the levels mandated by current Federal standards, and produce electricity at costs 10 to 20 percent below today's conventional plants.

Goals:	*FY 1996 Results:*
Continuing accomplishments in the Clean Coal Technology Demonstration Program, including: - *starting up the nation's first two full commercial-scale coal gasification combined cycle facilities, both achieving 96 percent or greater SO_2 removal and NOx reductions of at least 90 percent, and* - *demonstrating the market readiness of two more advanced pollution control retrofit technologies that can remove up to 70 percent of NOx and SO_2 pollutants.*	*The Wabash River Coal Gasification Repowering Project plant construction is complete, and commercial operation began December 1, 1995. The Tampa Electric Integrated Gasification Combined Cycle Project completed construction and commenced start up in August 1996.* *The Milliken Clean Coal Technology Demonstration Project conducted sulfur performance testing during 1996, and data evaluation is in progress. Construction has been delayed on the Commercial Demonstration of the NOxSO SO_2 / NOx Removal Flue Gas Cleanup System due to a change in site/sponsor and the need to obtain new financing. This project is expected to achieve SO_2 reductions of 98 percent and NOx reductions of 70 percent.*
Demonstrating a low-cost combustion gas additive that increases SO_2 emissions removal from 92 percent to 98 percent in wet scrubbers and reduces cost from about $300 to $50 to $100 per additional ton of SO_2 removed.	*Full scale testing of additives has been completed at six power plants. 95-98 percent SO_2 removal was achieved at five of the sites. Performance at the sixth site was 93 percent (up from a baseline of 86 to 89 percent). The cost per additional ton of SO_2 oval ranged from $35 to $70.*
Beginning the test runs of the first two complete natural gas molten carbonate fuel cell plants - one for utility power generation, the other for onsite cogeneration - that will lead to a 60 percent efficient market-ready fuel cell system by the year 2000.	*The first complete molten carbonate fuel cell plant successfully began operation on April 25, 1996 in Santa Clara, CA with a second plant scheduled to begin operation by the end of CY 1996 in San Diego, CA.*
Moving two U.S. natural gas turbine technologies into the large-scale component development stage, leading by the year 2000 to a full-scale prototype of a 60 percent efficient, ultra-low, NOx advanced gas turbine system.	*Phase III (technology readiness testing) has been initiated with two manufacturers of utility-sized gas turbines (General Electric and Westinghouse). This program is accelerating the introduction of U.S. power generation technology that complies with increasingly stringent environmental standards.*

Certifying the Next Generation of Nuclear Power Plants

Establish standardized designs and complete the testing and other activities necessary to receive Nuclear Regulatory Commission (NRC) certification of the next generation of light water reactors that will be simpler, safer, and less expensive to build and operate than existing plants.

Goals:	*FY 1996 Results:*
Supporting design certification by NRC for the Advanced Boiling Water Reactor and for System 80+ by the end of FY 1996.	*NRC issued Final Design Approval for the reactor in July 1994 and the Notification of Rule making in March 1995. The NRC design certification process will extend into the 1997 calendar year but is expected to be completed successfully. The Department's role in providing design certification is essentially completed. DOE will continue to work with NRC and the industry to resolve remaining concerns until the certification is granted.*
By April 1996, completing testing and test analysis reports for the AP-600 nuclear plant design that are needed to support issuance by NRC of the Supplemental Draft Safety Evaluation Report.	*Testing and test analysis reports were completed on schedule.*

Implementing International Climate Change Initiatives

Monitor and mitigate greenhouse gas emissions and achieve U.S. goals under the United Nations Framework Convention on Climate Change's Climate Change Treaty.

Goals:	*FY 1996 Results:*
Conducting an interagency evaluation of the second round of the U.S. Initiative on Joint Implementation (USIJI) proposals and awarding the winning proposals by December 1995. These actions are estimated to reduce carbon emissions by more than 5 million metric tons in the developing countries by the year 2000.	*A second round of project selection in USIJI was completed, and seven new projects were selected. These actions are estimated to reduce carbon emissions by more than 5 million metric tons in the developing countries by the year 2000.*
Completing the first round of 56 climate change country studies, which will produce each country's greenhouse gas emission inventories, risks associated with climate change, and mitigation plans to reduce or capture greenhouse gas emissions.	*All 56 country studies projects are complete, and draft or final reports have been received from the participating countries. These reports are serving as the basis for the national communications of developing countries which are due to the Convention next year. This program has generated considerable good will and is cited by developing countries in almost every climate change fora. DOE participated in the first three meetings of the Ad Hoc Group on the Berlin Mandate, which is negotiating next steps under the Convention.*

Maximizing the Value of Federal Oil Fields

Maximize the value to the taxpayer of the Naval Petroleum and Oil Shale Reserves (NPOSR) by divesting them to the private sector, subject to Congressional authorization before the end of FY 1998.

Goals:	*FY 1996 Results:*
Offer the government-owned and operated commercial oil field at Elk Hills for sale to the private sector and conduct a study of other NPOSR assets.	*PL 104-106, which authorizes the sale of Elk Hills by February 10, 1998, outlines the process for the determination of a fair market value of Elk Hills, as well as the administration of the sale. Results to date include:* - *CS First Boston was contracted to serve as the investment banker to administer the sale. Petrie*

Parkman was brought in to serve as the expert on elements of the sale unique to the petroleum industry.
- *Ryder Scott Company was contracted to prepare a reserves report of the Elk Hills field, describing in detail the estimated volumes of oil, gas, and hydro carbon liquids available for recovery.*
- *Netherland, Swell, & Associates, Inc. was contracted to serve as the independent petroleum engineer in order to prepare a recommendation on final equity interest for each oil and gas zone at Elk Hills.*
- *Two additional contracts were awarded for legal and administrative support services.*
- *Gustavson Associates was awarded contract to conduct study of other NPOSR assets. The report was completed.*

Prior to the sale, operating the Reserves in FY 1996 so as to achieve net revenues in the range of $217 to $256 million to the Treasury.

FY 1996 operation of the Reserves achieved:
- *Production of 40 million barrels of oil and equivalent gas.*
- *Net revenues of $241 million.*

Improving Efficiency in Energy Intensive Industries

Work with the most energy-intensive industries to focus cooperative research, increase energy and resource efficiency, and improve U.S. competitiveness resulting in over $20 billion of industry energy cost savings by the year 2000.

Goals:

Signing partnership agreements with the metal castings industry in October, chemical industry in June, glass industry in September, and aluminum industry by September to achieve "Industrial Visions of the Future," which include economic, energy efficient, and environmentally superior technologies.

FY 1996 Results:

Metal castings and glass industry partnership agreements have been signed. The aluminum industry agreement was signed in October. The chemical industry agreement has been rescheduled for late winter.

Beginning four new technology road maps with industry representatives teaming and cost-sharing with DOE programs, researchers, and laboratories.

Four technology road maps have begun in the metal castings, glass, aluminum, and chemical industries.

Ensuring the Availability of Isotopes for Industry, Research, and Health Care

Ensure the timely, reliable, and cost-effective availability of isotopes for use in U.S. industry, research, and health care. Reduce dependence on foreign markets for molybdenum-99, which is used in 15 million diagnostic medical tests per year in the U.S.

Goals:

Issuing the Environmental Impact Statement (EIS) and reaching a Record of Decision (ROD) by March 1996 on establishing a domestic source of molybdenum-99 production.

FY 1996 Results:

DOE intentionally delayed issuance of the Final EIS for the molybdenum-99 initiative until April 1996. The ROD was issued in September 1996, and the Department revised the schedule for the overall project.

Demonstrating a domestic source capability for molybdenum-99 through production of at least 30 curies of molybdenum-99 by September 1996.

Sample quantities of molybdenum-99 were produced in October 1996, on time under the revised schedule.

Improving the on-time delivery rate for all deliveries from 91 to 95 percent by January 1996. (Measure revised for purpose of accuracy.)	*The Department's on-time delivery rate reached 95 percent by January 1996.*
Working with U.S. industry to identify, by the end of September 1996, at least five specific activities now conducted by the DOE Isotope Production and Distribution program that can be privatized within one year.	*The request for expressions of interest in privatization was published in December 1995, and responses were obtained by April 1996. Five activities for privatization were identified on schedule. In addition, hot cell operations for the production of isotopes at Idaho National Engineering Laboratory were commercialized on October 1, 1996. The privatization initiative is proceeding.*

MANAGEMENT AND OTHER ACTIVITIES - encompasses crosscutting areas of the Department, including management and administration, regulation, and energy information.

		(in millions)
Departmental Administration and Staff Offices		$370
Inspector General		28
Economic Regulation		
Hearings and Appeals	$4	
General Counsel Compliance Office	4	
Subtotal		8
Energy Information Administration		
National Energy Information Systems		79
Federal Energy Regulatory Commission		146
Other		6
TOTAL		**$637**

Departmental Administration

Departmental Administration and Staff Offices - salaries and expenses for staff organizations including: the Office of the Secretary; Policy; Chief Financial Officer; Human Resources and Administration; Field Management; Congressional, Public, and Intergovernmental Affairs; General Counsel; Economic Impact and Diversity; and Board of Contract Appeals.

Inspector General

Inspector General - in accordance with the Inspector General Act of 1978, conducts investigations, audits, and inspections to detect and prevent fraud, abuse, and violations of law, and to promote economy, efficiency, and effectiveness of DOE operations.

Economic Regulation

Hearings and Appeals - processes and resolves refund requests related to Emergency Petroleum Allocation Act of 1973 regulatory program actions. Additionally, this office processes Freedom of Information Act and Privacy Act appeals, conducts evidentiary hearings to determine employee security clearance eligibility, and processes requests for exception from DOE regulations and orders.

General Counsel Compliance Office - administers enforcement activities resulting from Emergency Petroleum Allocation Act of 1973 violations.

Energy Information Administration

National Energy Information Systems - functioning as an independent statistical/analytical agency, develops and maintains a comprehensive energy database, publishes a wide variety of energy reports and analyses as required by law and responds to energy information inquiries from DOE decision- and policy-makers, the Congress, other government entities, industry, and the general public. Information disseminated includes data on energy reserves, production, distribution, consumption, prices, technology, and related international economic and financial market information.

Federal Energy Regulatory Commission

Natural Gas and Oil Regulation - ensures that natural gas and oil pipelines provide reliable service at just and reasonable rates, that rates appropriately respond to competitive market signals, and that the infrastructure is developed in an environmentally acceptable way to serve new markets.

Hydropower Regulation - ensures water resource developments are safely constructed, operated, and maintained consistent with environmental values and public interests, including project licensing, dam safety, project compliance, and the investigation and assessment of headwater benefits.

Electric Power Regulation - regulates interstate transmission and sale of electricity by investor owned utility companies and addresses related market-based issues such as mergers, wheeling, pooling, and cogenerating.

Performance Measures

Improving Services to Customers and Stakeholders
Develop techniques to improve delivery of services and products to customers and stakeholders.

Goals:	*FY 1996 Results:*
Eliminating the 1993 and 1994 backlog of 208 Freedom of Information Act (FOIA) cases.	*In January 1996, the Freedom of Information Act (FOIA)/ Privacy Act Office announced its current backlog reduction initiative, which targets completion of requests received in 1993 and 1994 by the end of the fiscal year. Of the 208 cases identified, 148 have been completed, 21 have been referred to other agencies, and 39 remain pending within our program offices.*
Centralizing FOIA/Privacy Headquarters Operations to ensure compliance with 10-day statutory response time.	*As part of the Strategic Alignment Initiative (SAI), it was agreed that centralizing Headquarters FOIA/Privacy Act processing activity into one office would improve customer service. However, in the face of congressionally imposed budgetary constraints, a modified centralization pilot was implemented on April 1, 1996. This pilot utilized existing FOIA/Privacy Act staff augmented by four detailees from program offices. Eight of twenty-two program offices are participating in the pilot. Since the pilot was implemented, 70 centralized requests have been received. 42 requests are completed, and the average processing time was 30 days. Interim/partial responses have been forwarded for the remaining 28 requests.*

Involving Stakeholders in the Policy Making Process

Assure that the business of DOE will be open to the full view and input of those whom it serves, consistent with applicable laws, regulations, and contracts.

Goals:	*FY 1996 Results:*
Ensuring that Environmental Management (EM) decisions consider the input of site specific groups.	*DOE has undertaken two initiatives that ensure considering input from site-specific groups: Site-Specific Advisory Boards (SSAB) and Public Participation in the FY 1998 EM Budget. The SSABs provide EM with advice on policy issues and help ensure that stakeholder input is given fair and adequate consideration in EM decisions. Nearly 70 percent of SSAB participants feel that the SSABs have provided informed advice to DOE. Also, all steps for involving the public in the FY 1998 budget formulation process have been completed on time.*
Completing a third national survey of DOE stakeholders' attitudes, needs, and expectations of DOE by July 1996 to assess the Department's progress against the FY 1993 baseline.	*Two surveys (1992 & 1994) have shown remarkable progress; this third survey will keep DOE focused on continual improvement. The due date for completing interviews for the Trust and Confidence Survey has been postponed until December 1996/ January 1997 to be consistent with the timing of the last two national surveys.*

Streamlining Management Structure

Reduce management layers and encourage employee empowerment.

Goals:	*FY 1996 Results:*
Increasing the worker to supervisor ratio to 11:1 from a ratio of 7.9:1 in September 1995.	*As of September 28, 1996, DOE's employee to supervisor ratio was 8.5:1, improving from the end of FY 1995 ratio of 7.9:1. It should be noted that, since FY 1993, DOE has decreased its number of supervisors from 3,345 to 1,758 (47 percent).*
Decreasing the number of employees in senior level positions (SESs, GS-15s, and 14s) by 194 from 5,568 at the end of FY 1995.	*As of September 28, 1996, the number of senior level positions was 5,479, a reduction of 89 positions.*

Recruiting, Rewarding and Retaining Technical Excellence

Use personnel tools to attract and retain technical excellence in managing defense nuclear facilities.

Goals:	*FY 1996 Results:*
Fully implementing the Technical Qualifications Program by December 1995 to cover all 2,800 technical employees involved in managing defense nuclear facilities.	*The Office of Human Resources and Administration is tracking the employees who meet the Technical Qualifications Standards. The Technical Qualification Program was implemented May 31, 1996, across DOE at Defense Nuclear Facilities.*
Updating all Individual Development Plans for the technical employees of defense nuclear facilities to incorporate the Technical Qualifications Program competencies.	*Individual Development Plans for employees at defense nuclear facilities have been updated to include Technical Qualification Standards.*

Increasing the technical to non-technical ratio for defense nuclear related positions to 1:0.8 by December 1996, from a ratio of 1:0.85 in December 1995.	*Critical unmet technical safety staffing needs have been identified. Fifty-five positions (75 percent) will be filled by December 1996. The technical to non-technical hiring ratio will then be 1:0.8.*

Providing Transition Assistance to Employees

Offer career transition assistance to minimize the impacts of downsizing on Department employees.

Goals:	*FY 1996 Results:*
Expanding services of the Career Management Resource Center to provide transition assistance to Headquarters employees by: - *Increasing the number of employees served by 20 percent from 3,235 in FY 1995 to 3,880 in FY 1996, and*	*The Career Management Resource Center experienced a 26 percent increase in the number of visitations during FY 1996 (4,085) when compared to the total for FY 1995 (3,235). The Center exceeded the success measure of 3,880 visitors for the fiscal year.*
- *Increasing the number of workshops to aid employees in actions related to career transition by over 40 percent; from 22 workshops in FY 1995 to 36 in FY 1996.*	*The number of workshops to aid employees in actions related to career transition exceeded the target of 36 for FY 1996. The number of these workshops increased from 22 in FY 1995 to 37 in FY 1996. The Career Center also sponsored 22 workshops related to professional development.*
Increasing Departmental field sites with transition assistance services from 4 in FY 1995 to 13 in FY 1996 as needed.	*As of October 15, 1996, 13 Department of Energy sites reported that they had established career transition services, and two more sites intend to establish such services in FY 1997.*

Setting a New High Standard in Contract Management

Establish a new legacy of improved contracting through the Department's solicitations and negotiations, facilitating privatization activities, and ensuring translation of contract reform into Department policies, procedures, and guidance.

Goals:	*FY 1996 Results:*
Selecting contractors and incorporating contract reforms into contracts for four sites and for the 15 DOE facilities whose contracts are to be extended in FY 1996.	*Contract extensions, selections, and reforms have been made at nine DOE facilities; DOE will compete three contracts at Oak Ridge and close out contract work at Pinellas and the Laboratory of Radiobiological and Environmental Health; cooperative agreements were put in place at the Inhalation Toxicology Research Institute and Savannah River Ecology Laboratory; and a solicitation was issued at Mound.*
Developing Departmental policy on privatization by April 1996.	*The final draft of the DOE policy privatization is in final review.*
Issuing a solicitation to privatize the treatment of tank waste at Hanford by February 1996.	*The solicitation was issued on schedule in February 1996.*
Publishing a proposed rule making by April 1996 which reflects Departmental policies on competition, contractor accountability, contractor fees, and make-or-buy decisions.	*The rule making was published in June 1996 in the Federal Register which covers DOE policies on competition, contractor accountability, and make-or-buy decisions. The policy on contractor fees is still under deliberation.*
Reducing support service contracts to $610 million by September 1996 from an FY 1994 baseline of $700 million.	*The savings for FY 1996 are $184 million; $94 million more than the target.*

Reducing Federal Regulations

Eliminate unnecessary prescriptive requirements as well as nonessential processes, reports, forms, and directives.

Goals:	*FY 1996 Results:*
Reducing the number of DOE operations offices' field directives from 856 in FY 1995 to 290 in FY 1996; a 66 percent decrease. Overall, the number of directives will have been reduced by 80 percent since this effort began in FY 1993.	*In reducing their overall field directives inventory to 200, the operations offices have exceeded the reduction goal. This represents an 86 percent reduction from the FY 1993 baseline.*
Achieving an additional 10 percent reduction in the number of Headquarters directives from 156 in FY 1995 to 140 in FY 1996.	*As of September 30, 1996, 22 Headquarters directives were eliminated, representing a 14 percent reduction.*
Reporting operational improvements realized as a result of the directives reduction efforts.	*Operational impacts resulting from DOE directives reduction efforts have been identified via a cross-cutting DOE team, led by the Office of Human Resources and Administration. Significant cost savings and delegations of authority associated with the Department's Work for Others and environment, safety, and health compliance programs are anticipated. The pilot of directives cost impact model identified $114 million savings over 5 years.*

Reducing the Oversight Burden on Field Activities

Improve the efficiency of DOE oversight of field offices, laboratories, and major contractors by consolidating oversight visits and simplifying technical reviews.

Goals:	*FY 1996 Results:*
Improving the business management review process for field activities by reducing the number of oversight visits by 80 percent and associated costs by $10 million.	*The number of oversight visits at laboratories have decreased 94 percent from 343 to 21, saving $7 million to date. Data from non-laboratory contractors is pending; savings in excess of $3 million are expected.*
Improving the technical review oversight process for the national laboratories by reducing the number of reviews and overall cost of oversight.	*A pilot for Simplification of Technical Reviews of DOE National Labs is being implemented during CY 1996 at Argonne, Sandia, and National Renewable Energy Laboratory. Joint planning of reviews by program and laboratory managers with cognizance of program offices will assist the improvement of review procedures.*
Improving the program supported Environment, Safety, and Health (ES&H) oversight process at six pilot laboratories and reducing associated costs by 30 percent.	*Major accomplishments in FY 1996 include: reducing the number of program supported ES&H oversight assessments; reducing costs by approximately 30 percent; improving ES&H performance measures, and improving feedback on performance.*

Extending Use of DOE Lands and Facilities

Initiate comprehensive planning to integrate life cycle asset management goals of stakeholders and the Department and to determine ways to broaden the use of DOE lands and facilities.

Goals:	*FY 1996 Results:*
Initiating comprehensive land use planning processes at 40 of the Department's 50 major sites to set the context	*Forty-two of the Department's 50 major sites initiated comprehensive land use planning processes to set the*

for future use decisions and to reduce duplicative planning efforts.	*context for future use decisions and to reduce duplicative planning efforts. Comprehensive land use planning is not applicable at the remaining eight sites at this time.*
Completing at least ten major actions to make land and facilities available for broader public use.	*DOE completed over 35 major actions to make land and facilities available for broader public use.*

Improving Management Practices at the Department of Energy's Laboratories

Focus and clarify the missions of DOE laboratories to simplify oversight practices and adopt "best business practices" to ensure efficient operations.

Goals: *Reducing laboratory operating cost by $264 million in FY 1996 towards the goal of reducing these costs by $1.6 billion over the next five years.*	*FY 1996 Results:* *DOE has reduced laboratory operating costs by $264 million. This reduction is reflected in the FY 1996 budget request.*
Establishing with the Laboratory Operations Board by February 1996: - *a process to define the missions of each multi-program laboratory, and* - *a process to validate missions and privatization options for each single program and special mission laboratory.*	*This measure was completed when the Laboratory Operations Board Report, "Strategic Laboratory Missions Plan - Phase I," was issued in June 1996.*

REPORT OF THE OFFICE OF INSPECTOR GENERAL ON INTERNAL CONTROL STRUCTURE

The Acting Secretary
U.S. Department of Energy

We audited the consolidated financial statements of the U.S. Department of Energy (Department) for the year ended September 30, 1996, and have issued our report thereon dated December 27, 1996, except as to a portion of Note 16 which is as of January 31, 1997.

The management of the Department is responsible for establishing and maintaining an internal control structure. In fulfilling this responsibility, estimates and judgments by management are required to assess the expected benefits and related costs of internal control structure policies and procedures. The internal control structure is to provide management with reasonable, but not absolute, assurance that the following objectives are met:

1. Transactions are executed in accordance with management's authorization and are properly recorded and accounted for to permit the preparation of reliable financial reports in accordance with applicable accounting policies and to maintain accountability over assets.

2. Funds, property, and other assets are safeguarded against loss from unauthorized use or disposition.

3. Transactions, including those related to obligations and costs, are executed in compliance with laws and regulations that could have a direct and material effect on the financial statements, and are in compliance with any other laws and regulations that the Office of Management and Budget (OMB), Departmental management, or the Inspector General have identified as being significant and for which compliance can be objectively measured and evaluated.

4. Data that support reported performance measures are properly recorded and accounted for to permit preparation of reliable and complete performance information.

Because of inherent limitations in any internal control structure, errors or irregularities may nevertheless occur and not be detected. Also, projection of any evaluation of the structure to future periods is subject to the risk that procedures may become inadequate because of changes in conditions or that the effectiveness of the design and operation of policies and procedures may deteriorate.

In planning and performing our audit of the financial statements of the Department of Energy for the year ended September 30, 1996, we considered its internal control structure in order to determine our audit procedures for the purpose of expressing an opinion on the financial statements. Our consideration included obtaining an understanding of the significant internal control structure policies and procedures, determining whether they had been placed in operation, assessing the level of control risk relevant to all significant account balances, and performing sufficient tests to assess whether internal controls are effective and working as designed. Our evaluation of the internal control structure was conducted to determine whether it met the objectives identified in the previous paragraph and not to provide an opinion on the internal control structure. Accordingly, we do not express such an opinion.

Our evaluation of the controls for performance information was limited to those controls designed to ensure the existence and completeness of the information. With respect to the performance measure control objectives, we obtained an understanding of relevant control structure policies and procedures designed to permit the preparation of reliable and complete performance information and assessed control risk.

In evaluating the internal control structure, we considered matters reported by the Department in compliance with the Federal Managers' Financial Integrity Act, our prior and current audit reports, and other independent auditor reports on financial matters and internal accounting control policies and procedures. The Appendix to this report lists performance audit reports published by the Office of Inspector General during Fiscal Year 1996 that were considered in our evaluation of the internal control structure.

As part of our audit, we noted certain matters involving the internal control structure and its operation that we consider to be reportable conditions under standards established by the American Institute of Certified Public Accountants and OMB Bulletin No. 93-06, *Audit Requirements for Federal Financial Statements*. Reportable conditions involve matters coming to our attention relating to significant deficiencies in the design or operation of the internal control structure that, in our judgment, could adversely affect the Department's ability to ensure that the objectives of the internal control structure, as previously defined, are being achieved. The conditions considered to be reportable conditions are discussed in the Exhibit to this report.

Our consideration of the internal control structure would not necessarily disclose all matters in the internal control structure that might be reportable conditions or material weaknesses under standards established by the American Institute of Certified Public Accountants and OMB Bulletin No. 93-06. A material weaknesses is a condition in which

the design or operation of one or more of the internal control structure elements does not reduce to a relatively low level the risk that errors or irregularities in amounts that would be material in relation to the consolidated financial statements being audited, or material to a performance measure or aggregation of related performance measures, may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions. We noted no matters involving the internal control structure and its operation that we considered to be material weaknesses as defined above.

The audit also disclosed a number of other conditions relating to the Department's internal control structure that we did not consider to be reportable conditions and which did not materially affect the Department's financial statements. These matters will be communicated to management in 11 separate reports. Two reports will be issued to the Department's Chief Financial Officer and nine reports to field elements. The recommendations made in these reports are designed to strengthen internal controls or improve operating efficiencies.

Office of Inspector General

December 27, 1996

Environmental Remediation Liabilities

Background: The Department's estimate of environmental liabilities should reflect future costs associated with remediation of environmental contamination existing as of the last day of the fiscal year. At September 30, 1995, the Department's environmental liability was understated because it included only the estimated future costs of the environmental management program, which was derived from the Baseline Environmental Management Report (BEMR). The BEMR excluded estimates of remediation costs for active facilities (facilities with ongoing missions managed by other programs). To address this misstatement, the Office of Chief Financial Officer (CFO) developed an estimate of remediation costs for contaminated active facilities as of September 30, 1996. This estimate consisted of two principal components: (1) stabilization and deactivation costs based on cost models developed as part of the 1995 BEMR and (2) facility decontamination and decommissioning (D&D) costs based on D&D costs for similar facilities in the 1996 BEMR. The CFO also included costs for associated waste management and support.

To develop a reasonable estimate of remediation costs, the CFO needed accurate information on active facilities at 27 sites including the number of buildings or other structures, purpose or use, size, and the nature and extent of contamination. Data on facility size needed to be expressed in square feet for the CFO to use the BEMR models and estimation methods. The CFO relied on the Department's Facilities Information Management System (FIMS) to provide the basic data necessary to complete the estimate; however, FIMS did not report size information in square feet for some structures (e.g. pipes or electrical transformers). Therefore, the CFO required site personnel to provide additional information to supplement FIMS data for these types of structures. Also, to estimate the nature and extent to which active facilities were contaminated, the CFO made an initial assessment based on the facility use codes in FIMS. These initial assessments were then sent to site facility managers for review, feedback, and validation of the accuracy of the data.

Finding 1: Preparation of the Active Facilities Remediation Cost Estimate

As a component of its overall internal control structure, the Department is responsible for establishing a system of controls to provide reasonable assurance that estimates supporting accruals of unfunded environmental liabilities are complete and readily verifiable. While the Department's first-year estimate of environmental remediation costs for active facilities was reasonable overall, it was not sufficiently documented at the site level to permit detailed audit verification of input data. Validation work performed by site facility managers was produced in a short period of time, was not based on formal studies, and did not use a standard set of assumptions for size data conversion. This occurred because the Department did not specify the type of information or extent of documentation

necessary to support site level validation work and did not provide facility managers with standard assumptions or rules for data conversion.

Recommendation: The Department should refine the process for estimating remediation costs for active facilities. Specifically, the CFO should develop and promulgate standard procedures for conversion of data to square feet and specify requirements for determining and documenting the extent and nature of contamination of active facilities. The CFO should also ensure that site level information supporting the estimate is sufficiently documented to allow audit verification.

Management Reaction: Management concurred with the recommendation and agreed to refine the process for estimating remediation costs for active facilities during Fiscal Year 1997. Specific instructions will be issued to field offices including requirements for retaining information to facilitate audit verification of all estimates.

Auditor Response: Management's planned actions are responsive to our recommendation.

Financial Management System

Background: The Department's financial management system operates through a decentralized system composed of integrated contractors, field offices, power marketing administrations (PMAs), and Headquarters offices. Specific components of the system include (1) the Departmental Primary Accounting System, currently consisting of the Funds Distribution System, the Financial Information System, and the Departmental Integrated Standardized Core Accounting System (DISCAS); (2) the Payroll and Personnel System (PAY/PERS); (3) the Departmental Budget Formulation System; and (4) the PMAs' financial management systems. The financial management system was developed and implemented a number of years before the Department became subject to the requirement to produce consolidated financial statements.

In this regard, the PMAs present a unique challenge to the Department related to the preparation of consolidated financial statements. Unlike the rest of the Department, the PMAs do not directly integrate their financial accounting records into the Department's Primary Accounting System. They use a basis of accounting unique to the utility industry that is prescribed by the Federal Energy Regulatory Commission. Therefore, the PMAs must convert their accounting records to the U. S. Standard General Ledger (SGL) format

by means of a crosswalk when reporting yearend results to the Department. Complete PMA data is not included in the Department's financial management system at any other time throughout the year.

The Department is now involved in various efforts to develop and implement major enhancements to its financial management system. One series of enhancements, known as the Management Analysis Reporting System (MARS), was designed to update the system and to increase its usefulness. Phases I and II are complete, and Phase IIIA is currently underway. Phase IIIA includes a crosswalk of Departmental accounts to SGL accounts, which is the format required for U. S. Treasury reporting. Phase IIIB is to include implementation of SGL at the transaction level. The Department projects completion of these phases by September 30, 1998. The Department is also in the process of consolidating DISCAS operations at three financial service centers.

Our Fiscal Year 1995 report on the internal control structure contained a finding that the Department's financial management system was not directly capable of making financial statement-level adjusting, eliminating, and consolidating entries necessary to produce yearend financial statements. The Department took actions such as adapting the system to accept statement-level adjusting entries, requiring field offices to make needed adjusting entries when possible, and increasing review and approval requirements for statement-level adjusting entries to mitigate our previous concerns. However, as indicated by the following finding, further improvements in the Department's financial management system are needed to fully comply with Federal accounting and reporting requirements.

Finding 2: Integration and Control of Financial Management Systems

In accordance with OMB Circular No. A-127--Revised, each Federal agency is required to develop and maintain an integrated agency accounting and financial management system. Such systems must be capable of (1) collecting accurate, timely, complete, reliable, and consistent information; (2) maintaining consistent internal controls over data entry, transaction processing, and reporting; (3) supporting management information needs for budgeting, reporting, and decision-making; and (4) facilitating the preparation of financial statements and other financial reports in accordance with Federal accounting and reporting standards. Our Fiscal Year 1996 audit disclosed problems in the following areas:

- The processes used to convert data from the Departmental Primary Accounting System to external reporting formats were inconsistent with one another. Changes to the logic for crosswalking data to the SGL account structure did not keep pace with the changes made to the logic used for converting data to the OMB Bulletin No. 94-01 financial statement reporting format. In addition, changes in the logic for converting

data from the Department's account structure to the financial statement reporting format were not adequately documented.

- Information attributable to the PMAs was recorded in the Department's financial management system only through statement-level adjustments in an "off-line" system at yearend. The Department also had not developed and implemented a uniform process for converting PMA accounting data to the formats required for consolidated financial and Treasury reporting.

- The Department did not document a clear audit trail for certain yearend adjustments.

- Weaknesses existed in the general controls established for operation of the DISCAS. Specific weaknesses or inconsistencies involving separation of duties, software change controls, access controls, and contingency and disaster recovery planning were found at the three consolidated service centers that process DISCAS transactions.

These problems occurred because the Department's financial management system was not fully integrated, did not use the SGL at the transaction level, and did not ensure consistent implementation of internal controls throughout the system. As a result, the Department's financial management system did not fully reflect its consolidated position and results of operations and might have been susceptible to errors or problems due to general control weaknesses.

Recommendations: The Department should continue efforts toward financial information system integration through the following actions:

- Continue efforts to implement SGL at the transaction level.

- Ensure that when changes are made to the financial statement conversion process, they are also made to the SGL logic in a timely manner. Document, including rationale, all necessary changes to conversion logic for required external reporting.

- Develop a uniform process for converting PMA accounting information to the SGL format.

- Eliminate the need for ancillary "off-line" information systems and the manual yearend consolidation process by integrating the PMAs into the financial management system.

- Provide a fully documented audit trail for all yearend adjustments.

- Coordinate with each accounting site and consolidated service center to ensure consistent implementation of internal controls related to separation of duties, software change controls, and disaster recovery planning throughout the Department's financial management system.

Management Response: Management concurred with the recommendations. The CFO is developing and implementing major enhancements to the Department's financial management systems and processes. Specifically, implementation efforts are proceeding for Phase III of the MARS implementation schedule, which will include conversion for the Department's existing chart of accounts to the SGL accounts at the transaction level. Also, the CFO will continue to work with the PMAs to develop a uniform process for converting their yearend accounting information to the SGL format. The CFO will consider the potential for integrating the PMAs yearend SGL data into MARS to reduce the need for an off-line process for generating the Department's consolidated financial statements. In addition, the CFO will issue guidance to the consolidated service centers to address the general control deficiencies identified and will test and implement a disaster recovery plan in Fiscal Year 1997.

Auditor Comments: Management's planned actions are responsive to our recommendations.

Property, Plant and Equipment

Background: The Department is charged with the responsibility of protecting and maintaining accountability over $22 billion of Government property. Management of the vast majority of such property is delegated to the contractors that operate the Department's facilities across the country. These contractors are responsible for implementing financial and physical property accounting controls that are consistent with guidance promulgated by the Department and other cognizant Government bodies.

In our Fiscal Year 1995 report on the internal control structure, we reported that the Department's internal control system to prevent or detect the inconsistent or misapplication of accounting policies, principles, and procedures was not entirely effective. The Department has taken certain corrective actions; however, it still needs to strengthen its internal control system for property, plant and equipment.

Finding 3: Remaining Property, Plant and Equipment Accounting Issues

Departmental accounting directives specify property, plant and equipment accounting policies, principles, and procedures that are applicable to all Departmental elements. These directives and other policy guidance delineate the appropriate accounting treatment for a broad spectrum of events and transactions. During our Fiscal Year 1996 audit, we determined that the following problems existed:

- Some surplus, excess, or inactive facilities and equipment remained on the accounting records at cost less accumulated depreciation rather than being reduced to their net realizable value.

- Guidance on write down of book value of facilities used to treat, store, and dispose of legacy waste was not consistently applied.

- Some facilities and equipment used to treat, store, and dispose of legacy waste remained on the accounting records as assets rather than being expensed in the current period.

- Subsidiary ledgers were not always reconciled to control accounts.

- Construction and equipment work-in-progress projects were not always closed to completed property, plant and equipment in a timely manner.

- Some leases that met established capitalization criteria were treated as expense items rather than capitalized.

These problems occurred because contractors misinterpreted certain requirements and Heads of Field Elements did not ensure that contractors consistently applied applicable accounting criteria. Because of these problems, the Department's ability to ensure that its property, plant and equipment balance was properly stated was diminished.

Recommendation: The Department should clarify its guidance for writing down legacy waste facilities and instruct its field offices to ensure that valuation of respective property, plant and equipment is consistent with the guidance. No further recommendations are made because a number of audit findings were issued separately and will be addressed in management reports issued at the field element level.

Management Response: Management concurred with the recommendation and agreed to work closely with the Office of Inspector General and the field to determine the types of inconsistencies found at the sites and provide clarifying guidance as appropriate.

Auditor Comments: Management's planned actions are responsive to our recommendation.

Office of Inspector General Fiscal Year 1996 Audit Reports

Report Number	Report Title	Date Report Issued
IG-0380	Audit of the Department of Energy's Transportation Accident Resistant Container Program	October 11, 1995
IG-0381	Audit of Management and Operation Contractor Overtime Costs	October 27, 1995
IG-0382	Audit of the Department of Energy's Site Safeguards and Security Plans	December 1, 1995
IG-0385	Special Audit Report on the Department of Energy's Arms and Military-Type Equipment	February 1, 1996
IG-0387	Audit of Architect and Engineering Costs at the Idaho National Engineering Laboratory	March 22, 1996
IG-0388	Audit of Internal Controls Over Special Nuclear Materials	April 4, 1996
IG-0389	Summary Audit Report on Lessons Learned from the Superconducting Super Collider Project	April 23, 1996
IG-0390	Audit of Department of Energy Management and Operating Contractor Available Fees	May 8, 1996
IG-0391	Audit of Department of Energy's Activities Designed to Recover the Taxpayers' Investment in the Clean Coal Technology Program	June 6, 1996
IG-0392	Audit of the Department of Energy Program Offices' Use of Management and Operating Contractor Employees	July 8, 1996
IG-0394	Special Audit of Pension Plans for Department of Energy Contract Employees of the University of California	August 19, 1996
IG-0395	Audit of the Department of Energy's User Facilities	August 19, 1996

Report Number	Report Title	Date Report Issued
IG-0396	Audit of Department of Energy's Contractor Liability Insurance Costs	September 13, 1996
CR-B-96-01	Audit of the Federal Energy Regulatory Commission Leased Warehouse Space	May 24, 1996
ER-B-96-01	Audit of Work Force Restructuring at the Fernald Environmental Management Project	April 23, 1996
ER-B-96-02	Audit of Groundwater Remediation Plans at the Savannah River Site	June 11, 1996
WR-B-96-01	Audit of Fire and Emergency Medical Services Cost Sharing Between the Department of Energy and Los Alamos County	October 2, 1995
WR-B-96-02	Audit of Construction of an Environmental, Safety, and Health Analytical Laboratory at the Pantex Plant	October 6, 1995
WR-B-96-03	Audit of Construction Management at the Idaho National Engineering Laboratory	October 18, 1995
WR-B-96-04	Audit of Fuel Processing Restoration Property	October 20, 1995
WR-B-96-05	Audit of Consultant Agreements at Los Alamos National Laboratory	February 25, 1996
WR-B-96-06	Audit of Bonneville Power Administration's Management of Information Resources	April 2, 1996
WR-B-96-07	Subcontracting Practices at the Nevada Operations Office and Its Management and Operating Contractor	May 10, 1996
WR-B-96-08	Audit of the Management of the Cooperative Agreement with Texas to Fund the Amarillo National Resource Center for Plutonium	August 23, 1996

REPORT OF THE OFFICE OF INSPECTOR GENERAL ON COMPLIANCE WITH LAWS AND REGULATIONS

The Acting Secretary
U.S. Department of Energy

We audited the consolidated financial statements of the U.S. Department of Energy (Department) for the year ended September 30, 1996, and have issued our report thereon dated December 27, 1996 except as to a portion of Note 16 which is as of January 31, 1997.

We conducted our audit in accordance with generally accepted auditing standards, *Government Auditing Standards*, issued by the Comptroller General of the United States, and Office of Management and Budget (OMB) Bulletin No. 93-06, *Audit Requirements for Federal Financial Statements*. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatements.

Compliance with laws and regulations applicable to the Department is the responsibility of Department management. As part of obtaining reasonable assurance about whether the consolidated financial statements were free of material misstatements, we tested compliance with those laws and regulations directly affecting the financial statements and certain other laws and regulations designated by the OMB and the Department. Accordingly, we tested compliance with the *Anti-Deficiency Act, Chief Financial Officers Act of 1990, the Davis Bacon Act, Fair Labor Standards Act of 1938, Federal Employees' Compensation Act, Federal Managers' Financial Integrity Act (FMFIA) of 1982, Federal Insurance Contributions Act, National Defense Authorization Act, and the Prompt Payment Act.*

As part of our audit, we also obtained an understanding of management's process for evaluating and reporting on internal control and accounting systems as required by the FMFIA and compared the Department's most recent FMFIA report with the evaluation we conducted of the Department's internal control structure. We also reviewed the Department's policies, procedures, and system for documenting and supporting financial, statistical, and other information presented in the overview and performance measurement section of this report.

The results of our tests for compliance with selected provisions of laws and regulations disclosed no compliance matters reportable under *Government Auditing Standards* issued by the Comptroller General of the United States or OMB Bulletin No. 93-06, *Audit Requirements for Federal Financial Statements*. With respect to provisions not tested, nothing came to our attention that caused us to believe that the Department had not complied in all material respects with those provisions. However, the objective of our audit of the consolidated financial statements was not to provide an opinion on overall compliance with such provisions. Accordingly, we do not express such an opinion.

Office of Inspector General

December 27, 1996

U. S. Department of Energy

Reader Response Sheet
Consolidated Financial Statements for FY 1996

The Chief Financial Officer is interested in the comments and suggestions of those who read this document. Please take a few minutes to complete this sheet and send it to the following address:

Office of Financial Control and Reporting
Department of Energy
19901 Germantown Road, Room E-153, CR-42
Germantown, MD 20874-1290

Comments may also be faxed to the Office on (301) 903-5202.

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