# DEPARTMENT OF ENERGY FY 1994 CONGRESSIONAL BUDGET REQUEST ENERGY SUPPLY, RESEARCH AND DEVELOPMENT

#### OVERVIEW

#### ADVISORY AND OVERSIGHT PROGRAM DIRECTION

This program provides the staffing resources and associated funding required by the Director of Energy Research/Science and Technology Advisor to carry out his responsibilities under the Department of Energy Organization Act (P.L. 95-91) and as mandated by the Secretary in areas beyond the scope of the other assigned Energy Research programs. The Science and Technology Advisor organization was established by the Secretary to strengthen the Director of Energy Research's capability for carrying out his statutory responsibilities for providing advice and analyses to the Secretary on science and technology policy issues and on laboratory well-being and management issues, and for carrying out other initiatives established by the Secretary. The program supports the staff of five subordinate organizations in the Office of the Science and Technology Advisor which was established under SEN-33-91. These include the Deputy Science and Technology Advisor (DSTA) for Civilian Research and Development, the DSTA for Civilian Laboratories, the Office of Technology Utilization, the Office of Space, and the Office of University and Science Education Programs. It also supports the Office of Assessment and Support, the Office of the Secretary of Energy Advisory Board (SEAB), and related program and management support staff.

The DSTA for Civilian Research and Development provides the Secretary with scientific and technical advice on DOE research and development projects, programs, plans and policies. Staff conduct independent technical assessments, peer reviews and evaluations of specific programs and projects and provide interagency coordination on science and technology developments. The DSTA for Civilian Laboratories assesses the overall strength and vitality of the multiprogram laboratory system. Staff develop and coordinate Departmental laboratory management policy and oversee management processes such as strategic and institutional planning for multiprogram laboratories, laboratory appraisals, work by the laboratories for non-DOE sponsors, and laboratory-directed research and development. The DSTA for Civilian Laboratories is also responsible for managing effective infrastructure support programs and spinoff technology transfer projects at the ER laboratories. The Office of Technology Utilization develops and advises the Science and Technology Advisor on technology transfer and utilization issues which cut across program lines; manages the Department's enhanced technology transfer program: performs crosscutting technology utilization transfer studies and pilot activities; and provides tools and training programs and conducts outreach activities for the Department's technology transfer efforts. The Office of University and Science Education Programs oversees and coordinates the Department's activities related to strengthening science, mathematics and engineering education in the U.S. and manages ER university and precollege science education and manpower development programs. The Office of Space coordinates the Department's activities in support of its membership on the National Space Council. Staff advise the Secretary on the use of outer space to achieve the Department's missions in energy, national security and science and technology; support the civil, national security. and commercial space sectors in DOE mission areas; coordinate the formulation of space policies and strategies and long-range plans and budgets; perform independent technology assessments of DOE space-related activities; and coordinate DOE space-related activities with domestic and foreign agencies involved in space activities.

Staff comprising ER's Office of Assessment and Support are also budgeted under Advisory and Oversight Program Direction. These staff provide independent advice and assessments to the Director of ER/STA on all matters involving environment, safety and health (ES&H) and also support the various ER programs in the implementation of their line management responsibilities regarding ES&H in their program and facility planning and operations.

This program also provides the staffing resources and associated funding required to support the SEAB. The SEAB is responsible for conducting studies and providing impartial strategic and technical expertise to the Secretary as required for Departmental planning and decisionmaking.

# DEPARTMENT OF ENERGY FY 1994 CONGRESSIONAL BUDGET REQUEST ENERGY SUPPLY, RESEARCH AND DEVELOPMENT (Tabular dollars in thousands narrative in whole dollars)

#### LEAD TABLE

### Advisory and Oversight Program Direction

Activity Energy Oversight, Research Analysis and University Support Advisory and Oversight Program Direction	FY 1992 Adjusted	_a/	FY 1993 Appropriation	_a/	FY 1993 Adjustment	FY 1994 Request
Operating Expenses	\$10,100		\$10,218		\$0	\$13,800
Staffing (FTEs)	83	b/	123	b/c/	0	126 b/
Authorization: Section 209, P.L. 95–91.						

a/ Excludes 11 FTEs and associated funding in Administration and Management which are transferred to Energy Research in the FY 1994 request (\$575 in FY 1992 and \$594 in FY 1993).

b/ Includes FTEs for the Office of the Secretary of Energy Advisory Board (SEAB) as follows: 11 in FY 1992, 12 in FY 1993, and 6 in FY 1994.

c/ Revised request.

# DEPARTMENT OF ENERGY FY 1994 CONGRESSIONAL BUDGET REQUEST ENERGY SUPPLY, RESEARCH AND DEVELOPMENT (dollars in thousands)

# SUMMARY OF CHANGES

## Advisory and Oversight Program Direction

FY 1993 Appropriation	\$ 10,218
- Adjustments	0
FY 1993 Adjusted	10,218
- Transfer - Salary, benefits, and travel expenses for 11 FTEs transferred from Administration and Management to consolidate DOE education initiatives	+ 594
FY 1993 Comparable	10,812
<ul> <li>Funds increased personnel costs, including 21 additional FTEs (less 11 to be transferred) and contractual support for increased staff and for environment, safety, and health compliance activities</li></ul>	+ 3,288
- Reduces support to the Secretary of Energy Advisory Board by 6 FTEs	- 300
FY 1994 Congressional Budget Request	\$ 13,800

# DEPARTMENT OF ENERGY FY 1994 CONGRESSIONAL BUDGET REQUEST ENERGY SUPPLY, RESEARCH AND DEVELOPMENT (dollars in thousands)

#### KEY ACTIVITY SUMMARY

#### ADVISORY AND OVERSIGHT PROGRAM DIRECTION

#### I. Preface: Advisory and Oversight Program Direction

This program provides the Federal staffing and associated funding resources required by the Director of Energy Research/Science and Technology Advisor to carry out his responsibilities under the Department of Energy Organization Act (P.L. 95-91) and as mandated by the Secretary, particularly in SEN-33-91, in areas beyond the scope of the other assigned Energy Research programs. It also provides the staffing and associated funding resources required by the Office of Assessment and Support and the Office of the Secretary of Energy Advisory Board.

#### II. A. Summary Table: Advisory and Oversight Program Direction

Program Activity	FY 1992 Enacted		FY 1993 Enacted		FY 1994 Request		% Change
Advisory and Oversight Program Direction Secretary of Energy Advisory Board	\$	9,447 653	\$	9,218 1,000	\$	13,100 700	+ 42 - 30
Total, Advisory and Oversight Program Direction	\$	10,100 =====	\$ ===:	10,218	\$ ===	13,800	+ 35

Program Activity

FY 1992

FY 1993

FY 1994

Advisory and Oversight Program Direction

Advisory and Oversight Program Direction

Provided funds for salaries, benefits. and travel related to 72 full-time equivalents (FTEs) in the Offices reporting to the Science and Technology Advisor (STA), the Office of Assessment and Support, and related program and management support staff. (\$5,847)

The Office of the Deputy Science and Technology Advisor (DSTA) for Civilian R&D, including the Office of Program Analysis and the Science and Technology Affairs Staff, was established in accordance with SEN-33-91 to strengthen and comply with statutory requirements to advise the Secretary of Energy on matters relating to the Department's research and development programs. Performed technical assessments. independent peer reviews and program evaluations in support of DOE's research and development goals and science and technology issues. Prepared and organized energy research plans and helped coordinate ER research with energy technology programs. Supported the Lawrence and Fermi Awards process.

New budget authority provides funds for Provide funds for salaries, benefits. salaries, benefits, and travel for 88 FTEs of the revised total request of 111 FTEs. (\$8.022)

TRANSFER: Funding for 11 FTEs. in addition to those above, involved in education initiatives was contained in the Administration and Management request for FY 1993.

Perform technical assessments. independent peer reviews and program evaluations in support of the expanded responsibility for science and technology advice under SEN-33-91. Support an anticipated increase in peer review of research projects from 700 to 1.050 a year. Support DOE-wide strategic and long-range planning and technical analysis by preparing and organizing plans to integrate basic energy research programs and energy technology programs in the Department, and plans for research, development, and demonstration, and commercial application of energy technologies. Provide liaison for the STA to the Federal Coordinating Council on Science, Engineering, and Technology (FCCSET) and to technical societies. Identify and monitor external science and technology developments relevant to DOE and advise on the balance and utilization of researchers in universities, industry and DOE laboratories. Continue to support the Lawrence and Fermi Awards process.

and travel for 120 FTEs, an increase of 32 over the original FY 1993 budget. This includes 11 FTEs transferred from Administration and Management. (\$11.175)

Support the DSTA for Civilian R&D. Provide technical analysis, planning and assessments in support of DOE-wide requirements of the Energy Policy Act and for issues that span environment. economics, and technology. Serve as a principal liaison with the FCCSET and with technical and professional societies. Continue to perform technical assessments, independent peer reviews and program evaluations in order to advise the Secretary on the Department's research and development programs. Continue to support the Lawrence and Fermi Awards process.

The Office of the Deputy Science and Technology Advisor (DSTA) for Civilian Laboratories developed and implemented laboratory management responsibilities under the STA. Provided management oversight of DOE's multiprogram nonweapons laboratories. Managed the MEL-FS program and continued to provide contractor oversight and to oversee cooperative technology transfer projects with industry and nondefense facility revitalization activities. Expanded institutional planning to all ER laboratories, cooperated in its application to defense laboratories. and incorporated the process into DOE strategic planning. Supported workload related to oversight of work for others (WFO), laboratory-directed research and development (LDRD) and appraisals of ER laboratories. Implemented the National Competitiveness Technology Transfer Act of 1989 at ER laboratories, including cooperative research and development agreements (CRADAs) with the private sector and oversight of laboratories' compliance with fairness of opportunity and conflict of interest standards. Supported special projects including special crosscuts for the Secretary and Task Forces involving laboratory management and technology transfer. Supported the quarterly laboratory directors meetings and a major Secretarial laboratory planning conference which will be held annually.

Increase support for the DSTA for Civilian Laboratories under SEN-33-91. Expand institutional planning, WFO, LDRD, laboratory appraisal and technology transfer activities into uniform Department-wide management processes. Participate in DOE strategic planning and manage CRADAs between ER laboratories and industry. Coordinate STA activities with other DOE programs, field offices, and laboratories, including independent analyses on institutional planning issues and strengthened laboratory appraisal process for greater contractor accountability. Plan, implement, and evaluate the ER laboratory technology transfer (LTT) program, including designing criteria for government/industry consortia spinoff partnerships: managing the American Textiles Consortium (AMTEX) partnership and major multilaboratory partnerships; and implementing an improved process for evaluation of spinoff CRADAs. Add six programdedicated laboratories under the ER LTT program and represent the program at outreach conferences. Continue enhanced effort on the General Purpose Facilities (GPF) program and the Tiger Team Remediations (ES&H) program to ensure improved infrastructure and compliance with ES&H requirements at ER laboratories. Oversee development of the Condition Assessment Survey (CAS) and Capital Assets Management Process (CAMP) for ER laboratories. Oversee maintenance management at ER laboratories, GPP, and GPE funding levels. and plan for an Inactive and Surplus Facilities program for ER. Initiate landlord oversight responsibilities for ER multiprogram laboratories. Continue to perform

Support the DSTA for Civilian Laboratories. Manage uniform DOE-wide processes for continuous improvement of institutional planning, WFO, LDRD, and laboratory appraisal. Continue to implement the technology transfer program, including designing criteria for government/industry consortia spinoff partnerships; managing the American Textiles Consortium (AMTEX) partnership and major multilaboratory partnerships: and implementing an improved process for evaluation of spinoff CRADAs. Continue to include six program-dedicated laboratories under the ER LTT program and represent the program at an increased number of outreach conferences. Manage STA activities with other DOE programs. field offices, and laboratories to ensure continuous improvement of independent analyses on institutional planning issues and to strengthen the laboratory appraisal process for greater contractor accountability. Carry out enhanced effort on the MEL-FS program including implementing the new Inactive and Surplus Facilities Program, reviewing and recommending approval of GPP projects above \$1M and managing landlord funding for Oak Ridge National Laboratory (ORNL) and Oak Ridge Institute for Science and Education (ORISE). Continue full implementation of CAS/CAMP asset planning activities. Prepare policy and plans to implement requirements of the Energy Policy Act of 1992. Continue review of Corrective Action Plan implementation by ER multiprogram labs and enhance landlord oversight activities. Continue to perform special projects, participate in task forces, and manage quarterly laboratory directors meetings with the Secretary.

> The Office of University and Science Education Programs supported science education initiatives including the development and initiation of collaborative science education activities involving other Federal agencies and private industry, and increased interaction with DOE's adopted school. Woodrow Wilson High School. Managed education outreach efforts and the University and Science Education program. Supported the initiatives from the Berkeley Math/Science Education Action Conference, the Charlottesville Education Summit Goals, and the Administration's "America 2000" education strategy. Supported science education activities involving mathematics enrichment and graduate support in selected energy-related fields including nuclear engineering. Developed and managed new precollege science education initiatives using state-of-the-art instructional technology. Continued to support the Laboratory Cooperative Science Centers Program and precollege teacher/student research appointments and initiatives at DOE laboratories targeted at minorities and women with emphasis on partnerships to improve science education in inner-city and rural school systems. Provided follow-up support for the Experimental Program to Stimulate Comprehensive Research

special projects, participate in task forces, support expanded issue-oriented quarterly laboratory directors meetings and an annual laboratory planning meeting with the Secretary and Program Secretarial Officers, and ER laboratory director meetings with the STA.

to ensure effective issue resolution and follow-up on all action decisions, and ER laboratory director meetings with ER.

Continue to support the Department's math/science education activities. Support increased activities related to science education at the seven designated Science Education Centers and other DOE facilities as a result of the National Education Goals and the Secretary's Berkeley Math/Science Education Action Conference. Under the FCCSET Committee on Education and Human Resources (CEHR) priorities, support increased efforts in public science literacy as well as other precollege and undergraduate programmatic areas. Continue to support public/private sector collaborations, science teacher initiatives, mathematics education programs and other efforts aimed at increasing the number of underrepresented minorities and women participating in a variety of activities supported by the Department. Continue to support EPSCoR effort and activities related to the on-line program information system for university and other researchers. Support new program activities related to undergraduate education including developing greater research capability at predominantly undergraduate institutions through laboratory/student research, and instructional technology efforts at both the undergraduate and precollege levels.

TRANSFER: Eleven FTEs related to

Support the Department's math/science education activities, including the use of resources transferred from Administration and Management. Continue to support activities at the seven designated Science Education Centers and other DOF facilities in support of the National Education Goals. Continue to support efforts under the FCCSET CEHR priorities in public science literacy as well as other precollege and undergraduate programmatic areas. Continue to support public/private sector collaborations. science teacher initiatives. mathematics education programs and other efforts to increase participation of minorities and women in a variety of activities supported by the Department. Interact with outside organizations to develop model state plans for education reform and improvements. Continue to support the EPSCoR effort and activities related to the on-line program information system for university and other researchers. Evaluate the strengths and capabilities of the nuclear engineering programs in order to improve research and education and to manage the follow-up implementation activities in accordance with the Energy Policy Act. Assist with required reports, technical studies, plans, and management activities designed to achieve needed improvement and upgrading of university

(EPSCoR) and university nuclear engineering awards. Continued interagency liaison on education efforts involving NSF, Department of Education, and all major mission agencies.

education initiatives were included in the Administration and Management request for FY 1993.

research reactors and associated instrumentation and equipment. Support undergraduate education including developing greater research capability at predominantly undergraduate institutions through laboratory/student research, and instructional technology efforts at both the undergraduate and precollege levels.

The new centralized Office of Technology Utilization was established in accordance with SEN-33-91. Advised the STA on technology transfer and utilization; managed the Department's enhanced technology transfer program; provided limited management oversight of the transfer of the results of the Department's research and development activities to commercial use; began to develop the tools and training required for technology commercialization; and provided limited policy analysis and guidance.

Increase efforts to implement and expand on the technology utilization function required by SEN-33-91. Provide management and staff support for the Department's enhanced technology transfer and utilization activities. Oversee transfer of the results of the Department's research and development activities to commercial use, and develop a limited Department-wide technology transfer awareness program and a tracking system for following the progress of specific technology transfer actions. Plan and initiate a limited DOE outreach program.

Continue to implement the technology utilization function and to support the Energy Policy Act, including using joint ventures and extending DOE/industry cooperation to include commercial application. Support ongoing DOE task force efforts and interagency technology transfer efforts. Refine policies and procedures to apply the Freedom of Information Act exemptions of Stevenson-Wydler to all DOE technology transfer agreements. Support establishment of effective linkages with the technology transfer offices of state and local governments, industry associations, colleges and universities. Advise the STA on and manage DOE's Enhanced Technology Transfer Program, including developing and applying standards of evaluation. Plan, organize, implement and evaluate a comprehensive DOE-wide outreach strategy. Oversee the transfer of the results of DOE's research activities to commercial use. Provide policy recommendations on the specific issues related to technology transfer with small business, as required by the Small Business Technology Transfer Act and the Defense Authorization Act for FY 1993. Plan, coordinate and support the Technology Transfer Committee and its working groups and subcommittees.

> The Office of Space was established. reporting to the STA. Coordinated the Department's space-related activities as a member of the National Space Council. Advised the Secretary and the Department on the use of outer space to carry out the Department's missions in energy, national security and science and technology: formulated and provided oversight for the implementation of space policies and strategies: established long-range plans for space: coordinated and developed the overall budget for space: and managed assigned space-related activities of the Department to achieve national objectives in national space policy, national energy strategy, national security, and international competitiveness. Maintained liaison with domestic and foreign space agencies and organizations concerning their energy- and space-related activities, and consulted with advisory committees and boards within and external to the Department regarding DOE space-related activities and issues.

Continue activities established in FY 1992, including advising the Secretary and the Department on the use of outer space to carry out the Department's missions in energy. national security and science and technology: formulating and overseeing the implementation of space policies and strategies: establishing long-range plans for space: coordinating and developing the overall budget for space: and managing assigned space-related activities of the Department, Maintain liaison with domestic and foreign space agencies and organizations concerning their energyand space-related activities and consult with advisory committees and boards within and external to the Department regarding DOE space-related activities and issues.

Publish statutory DOE reports to Congress and other reporting documents. Develop and evaluate training and performance measurements. Complete crosscutting studies. Monitor and ensure compliance of the CRADA approval process with statutory provisions.

Continue, at a reduced level. space-related activities including advising the Secretary and the Department on space activities related to the Department's missions in energy. national security and science and technology. Manage assigned space-related activities of the Department. Maintain liaison with domestic and foreign space agencies and organizations concerning their energyand space-related activities and consult with advisory committees and boards within and external to the Department regarding DOE space-related activities and issues.

The Office of Assessment and Support (OAS) continued to provide staff technical support to the Director of ER: independent environment, safety and health (ES&H) oversight of FR Headquarters and field operations: and support to line management in all areas of ES&H, safeguards and security. emergency preparedness, and quality assurance. Provided ES&H oversight. NEPA compliance activities, and partial implementation of OSHA and Conduct of Operations requirements. Served as the ER NEPA Compliance Officer and the ER principal contact for all incident notifications through the Emergency Operations Center (EOC). Responded to many initiatives from the Secretary and from other DOE organizations, such as Performance Indicators, incident reporting, emergency preparedness response, ES&H orientation and training and nuclear and other safety Orders and regulations. Organized and initiated mandated environmental protection programs and requirements, including monitoring, planning and oversight programs. Continued liaison and interaction with other DOE HO organizations and with ER field offices and contractor counterparts.

Provide increased support for independent ES&H oversight of ER programs and facilities and provide technical support to the Director of ER and the ER program offices. Ensure compliance with ES&H directives. regulations, and other DOE, OSHA, and NEPA requirements. Upgrade safety documentation and technical safety requirements for facility operations. provide ES&H training for ER staff. implement OSHA and quality assurance initiatives as well as new requirements for fire protection. Establish ER-wide ES&H action tracking system and conduct trending analyses of ER ES&H initiatives. Perform action item tracking and follow-up efforts and ES&H data reviews and trend analyses. Serve as the ER Radiation Control Program Coordinator in ensuring that the Secretary's Radiation Control Manual is fully implemented. Implement effluent and environmental monitoring, planning, oversight, and self-assessment programs. Assess site progress in implementing Compliance Action Plans. and perform extensive liaison and interaction activities, as well as oversee ES&H activities at ER assigned field offices. Continue efforts toward integration of assessments performed by the line organizations with those of oversight organizations.

Provide independent ES&H oversight of ER programs and facilities and provide technical support to the Director of ER and the ER program offices. Respond to ES&H directives, regulations, and other DOE, OSHA, and NEPA requirements. Continue to serve as the ER NEPA Compliance Officer and the ER principal contact for all incident notifications through the EOC. Upgrade safety documentation and technical safety requirements for facility operations. provide ES&H training for ER staff. implement OSHA and quality assurance initiatives as well as new requirements for fire protection. Perform action item tracking and follow-up efforts and ES&H data reviews and trend analyses. Serve as the Radiation Control Program Coordinator in ensuring that the Secretary's Radiation Control Manual is fully implemented. Assess site progress in implementing Compliance Action Plans, and perform liaison and interaction activities, as well as oversee ES&H activities at ER assigned field offices. Continue efforts toward integration of assessments performed by the line organizations with those of oversight organizations.

FY 1994

Advisory and Oversight Program Direction (Cont'd) Provided program and management support Continue to provide a wide variety of in the areas of budget and finance. personnel administration, acquisition and assistance, policy review and coordination, information resources management, and construction management support. Supported HO/field realignment and expanded science and technology advisory responsibilities of the OSTA. Increased interactions with Chicago and San Francisco Field Offices in the areas of program and management support.

program and management support services at an enhanced level.

Continue to provide for a wide variety of program and management support and services to the ER staff, and to implement responsibilities related to HO/field realignment and OSTA.

Provided program support such as printing, timesharing on various information systems and communications networks and contractual support. Provided for support costs of Automated Office Support Systems (AOSS) workstations. Provided contractual support for ES&H oversight and assessment capability, technical reviews and analyses, technical support to the ER programs, and NEPA compliance activities. Also provided contract support for technology transfer and utilization. (\$3.600)

Continue at a reduced level the variety Continue the variety of program support of program support required in FY 1992. (\$1.196)

included in FY 1992 and in FY 1993. Provide increased support for environment, safety, and health compliance activities: for additional staff: and for relocation expenses. (\$1.925)

\$ 9.447

\$ 9.218

\$ 13.100

Secretary of Energy Advisory Board

Provided funds for salaries, benefits, travel, and miscellaneous support related to 11 FTEs to support the SEAB which was established by the Secretary of Energy to assist in Departmental planning and decisionmaking. Included support of multiple panels and subpanels of top level executives throughout the country focusing on a variety of subjects including research. development, energy, national security and defense, radioactive waste. education, and energy technologies.

Provide funds for salaries, benefits. travel, and other support for 12 FTEs. Continue to support the Office of SEAB responsibilities for DOE long-range planning and strategic decisionmaking support to the Secretary of Energy.

Provide funds for salaries, benefits. travel, and other support for 6 FTEs. Support the Office of SEAB responsibilities for DOE long-range planning and strategic decisionmaking support to the Secretary of Energy at a reduced level.

Program Activity	FY 1992	FY 1993	FY 1994
Secretary of Energy Advisory Board (Cont'd)	\$ 653	\$ 1,000	\$ 700
Advisory and Oversight Program Direction	\$ 10,100	\$ 10,218	\$ 13,800

# DEPARTMENT OF ENERGY FY 1994 CONGRESSIONAL BUDGET REQUEST GENERAL SCIENCE AND RESEARCH

#### OVERVIEW

#### GENERAL SCIENCE PROGRAM DIRECTION

This program provides the Federal staffing resources and associated funding to plan, direct, and manage a viable, high quality national program of basic research in the fields of high energy physics and nuclear physics in support of the Nation's goals to support basic scientific research and to maintain U.S. competitiveness. It supports the staff in the Office of the Associate Director for High Energy and Nuclear Physics, the High Energy Physics Division, the Nuclear Physics Division, and associated program and management support staff in the Headquarters. This program also provides program-specific staffing resources at the Chicago, San Francisco, and Oak Ridge Field Offices to support high energy and nuclear physics activities carried out by those offices.

The Department of Energy provides over 90 percent of the Federal support, and serves as the Executive Agent, for the Nation's High Energy Physics program. Over 85 percent of the total Federal support of basic nuclear physics research is provided through the Nuclear Physics program. The staff develop program plans and budgets and execute approved programs. They support, plan, and provide for construction, maintenance, and operation of the large facilities on which research in high energy physics and nuclear physics depends. They oversee the operation of large and complex accelerator facilities which are used by qualified physicists throughout the Nation, provide technical oversight of the high energy physics and nuclear physics research programs at 15 major laboratories and well over one hundred universities throughout the Nation, and interact with other Federal agencies. In carrying out these responsibilities, the staff funded by General Science Program Direction assess the basic research needs of these programs with the advice and assistance of the High Energy Physics Advisory Panel (HEPAP) and the DOE/NSF Nuclear Science Advisory Committee (NSAC), participate actively in their meetings, and provide program and administrative support for their operation. The staff work in close cooperation with the Office of Superconducting Super Collider (OSSC), since the SSC is an integral part of the High Energy Physics program.

The staff also participate extensively in international collaboration and cooperative programs with Japan, W. Germany, CERN Laboratory (Geneva, Switzerland) member countries, China, the former Soviet Union, Spain, Italy, France, the Netherlands, and Canada.

# DEPARTMENT OF ENERGY FY 1994 CONGRESSIONAL BUDGET REQUEST GENERAL SCIENCE AND RESEARCH

(Tabular dollars in thousands narrative in whole dollars)

### LEAD TABLE

## **General Science Program Direction**

Activity	FY 1992 Adjusted	FY 1993 Appropriation	FY 1993 Adjustment	FY 1994 Request
General Science Program Direction				
Operating Expenses	\$6,400	\$8,300	\$0	\$9,000
Staffing (FTEs)				
Headquarters	49	47	0	47
Field	23	27	0	27
TOTAL	72	74	0	74

Authorization:

P.L. 95-91, "Department of Energy Organization Act" (1977)

# DEPARTMENT OF ENERGY FY 1994 CONGRESSIONAL BUDGET REQUEST GENERAL SCIENCE AND RESEARCH (dollars in thousands)

## **SUMMARY OF CHANGES**

## **General Science Program Direction**

FY 1993 Appropriation	\$ 8,300
- Adjustments	0
FY 1993 Adjusted	8,300
- Funds increased personnel costs including support for environment, safety and health compliance activities	+ 700
FY 1994 Congressional Budget Request	\$ 9,000

# DEPARTMENT OF ENERGY FY 1994 CONGRESSIONAL BUDGET REQUEST GENERAL SCIENCE AND RESEARCH (dollars in thousands)

#### KEY ACTIVITY SUMMARY

#### GENERAL SCIENCE PROGRAM DIRECTION

#### I. Preface: General Science Program Direction

This program provides the Federal staffing resources and associated funding to plan, direct, and manage a viable, high quality National program of basic research in the fields of high energy physics and nuclear physics to ensure U.S. competitiveness in basic research. It supports the staff in the Office of the Associate Director for High Energy and Nuclear Physics, the High Energy Physics Division, the Nuclear Physics Division, and associated program and management support staff both in the Headquarters and at Chicago, San Francisco, and Oak Ridge Field Offices.

#### II. A. Summary Table: General Science Program Direction

1 1 1

Program Activity	FY 1992 Activity Enacted		FY 1993 Enacted		FY 1994 Request		% Change
General Science Program Direction	\$	6,400	\$	8,300	\$	9,000	+ 8
Total, General Science Program Direction	\$	6,400	\$	8,300	\$	9,000	+ 8
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General Science Program Direction (Cont'd)

The Nuclear Physics staff provided technical oversight of the Nuclear Physics program, and utilization of seven large and complex national accelerator facilities. Managed more than 130 university research tasks, and provided technical and project management oversight for construction and major equipment projects, including Gammasphere and the joint U.S./Canadian SNO detector. Continued ES&H oversight capability, particularly with regard to operation of accelerator facilities and the construction of the Continuous Electron Beam Accelerator Facility (CEBAF) and the Relativistic Heavy Ion Collider (RHIC) at BNL. Continued to support establishment and expansion of the Nuclear Theory Institute activities. Supported construction of RHIC and supervised managerial enhancements, maintenance of safety and environmental standards. industrialization of superconducting magnet components, development and fabrication of detectors, and general adherence to cost and schedule baselines. Initiated support for university participation in detector design and fabrication. Continued to oversee a significant university user experimental research program. Continued to manage the Nuclear Data program in support of various DOE programs.

Provided program and management support Continue to provide program and in the areas of budget and finance, personnel administration, acquisition and assistance, policy review, information resources management, and construction management support.

Provide continued oversight of the Nuclear Physics program as in FY 1992. Maintain ongoing programs, including ES&H capability and oversight of international cooperative efforts in the Nuclear Physics program. Continue to oversee the safe operation or phase-down of complex accelerator facilities and establishment of the CEBAF laboratory. Continue to support the Nuclear Theory Institute. Continue to support construction of RHIC and university participation in detector design and fabrication at RHIC and CEBAF. Continue to support ongoing R&D programs at university facilities and continue to oversee a significant university user experimental research program. Continue to manage the Nuclear Data program.

Provide continued oversight of the Nuclear Physics program at the staffing level included in the FY 1993 budget. Continue oversight of international cooperative efforts in the Nuclear Physics program. Continue to oversee the safe operation or phase-down of complex accelerator facilities and oversee operational readiness reviews of the CEBAF laboratory. Continue to support the Nuclear Theory Institute. Continue to support construction of RHIC and university participation in detector design and fabrication at RHIC. Continue to support ongoing R&D programs at university facilities and continue to oversee a significant university user experimental research program. Continue to manage the Nuclear Data program.

management support as in FY 1992.

Continue to provide staff program and management support at the level included in the FY 1993 budget.

General Science Program Direction (Cont'd)

The Nuclear Physics staff provided technical oversight of the Nuclear Physics program, and utilization of seven large and complex national accelerator facilities. Managed more than 130 university research tasks, and the Nuclear Physics program. Continue provided technical and project management oversight for construction and major equipment projects, including Gammasphere and the joint U.S./Canadian SNO detector. Continued ES&H oversight capability, particularly with regard to operation of accelerator facilities and the construction of the Continuous Electron Beam Accelerator Facility (CEBAF) and the Relativistic Heavy Ion Collider (RHIC) at BNL. Continued to support establishment and expansion of the Nuclear Theory Institute activities. Supported construction of RHIC and supervised managerial enhancements, maintenance of safety and environmental standards. industrialization of superconducting magnet components, development and fabrication of detectors, and general adherence to cost and schedule baselines. Initiated support for university participation in detector design and fabrication. Continued to oversee a significant university user experimental research program. Continued to manage the Nuclear Data program in support of various DOE programs.

Provided program and management support Continue to provide program and in the areas of budget and finance. personnel administration, acquisition and assistance, policy review. information resources management, and construction management support.

Provide continued oversight of the Nuclear Physics program as in FY 1992. Maintain ongoing programs, including ES&H capability and oversight of international cooperative efforts in to oversee the safe operation or phase-down of complex accelerator facilities and establishment of the CEBAF laboratory. Continue to support the Nuclear Theory Institute. Continue to support construction of RHIC and university participation in detector design and fabrication at RHIC and CEBAF. Continue to support ongoing R&D programs at university facilities and continue to oversee a significant university user experimental research program. Continue to manage the Nuclear Data program.

Provide continued oversight of the Nuclear Physics program at the staffing level included in the FY 1993 budget. Continue oversight of international cooperative efforts in the Nuclear Physics program. Continue to oversee the safe operation or phase-down of complex accelerator facilities and oversee operational readiness reviews of the CEBAF laboratory. Continue to support the Nuclear Theory Institute. Continue to support construction of RHIC and university participation in detector design and fabrication at RHIC. Continue to support ongoing R&D programs at university facilities and continue to oversee a significant university user experimental research program. Continue to manage the Nuclear Data program.

management support as in FY 1992.

Continue to provide staff program and management support at the level included in the FY 1993 budget.

### III. General Science Program Direction (Cont'd):

Program Activity	FY 1992	FY 1993	FY 1994
General Science Program Direction (Cont'd)	Provided the direct program resources required to support High Energy Physics and Nuclear Physics activities at Chicago Field Office. Supported Batavia Area Office oversight of Fermilab. Supported RHIC technical oversight, procurement, project control, and construction activities at Brookhaven Area Office.	Continue to provide direct program support at Chicago Field Office, including increased ES&H oversight.	Continue to provide direct program support at Chicago Field Office, specifically at Batavia Area Office and in support of RHIC at Brookhaven Area Office at the FY 1993 level.
	Provided the program resources to support Nuclear Physics on-site activities at the CEBAF Site Office of the Oak Ridge Field Office. Provided technical oversight of the CEBAF Laboratory and technical and administrative support to the facility construction project including, for example, technical review of operations, procurement, ES&H oversight, finance and property management.	Continue to provide to the Oak Ridge Field Office on-site technical and administrative support for CEBAF.	Continue to provide to the Oak Ridge Field Office on-site technical and administrative support for CEBAF at the level included in the FY 1993 budget.
	Supported High Energy Physics and other energy research activities at the San Francisco Field Office. Supported the ES&H, technical and administrative activities at the Stanford Site Office (SSO).	Continue to provide program support to San Francisco Field Office for the Stanford Site Office.	Continue to provide program staff support to San Francisco Field Office for the Stanford Site Office at the level included in the FY 1993 budget.
	Provided program and contractual support to both HQ and field such as printing, advertising and support for Automated Office Support Systems workstations (\$744).	Continue the variety of contractual support required in FY 1992. Provide increased support to the field offices, including relocation costs and Tiger Team corrective actions. (\$1,315)	Continue the variety of contractual support required in FY 1993. Provide increased support for compliance with environment, safety, and health regulations and orders. (\$1,860)
	\$ 6.400	\$ 8,300	\$ 9,000
General Science Program Direction	\$ 6,400	\$ 8,300	\$ 9,000