# Ongressional Budget Request

Energy Supply Research and Development Nuclear Waste Fund Isotope Production and Distribution Fund Basic Research User Facilities

Volume 2

# FY 1989

DOF/MA-0274

Volume 2 of 4



U.S. Department of Energy

Assistant Secretary, Management and Administration Office of the Controller Washington, D.C. 20585

February 1988

# DEPARTMENT OF ENERGY

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# FISCAL YEAR 1989 CONGRESSIONAL BUDGET REQUEST

# ENERGY SUPPLY RESEARCH AND DEVELOPMENT

# NUCLEAR WASTE FUND

# ISOTOPE PRODUCTION AND DISTRIBUTION FUND

# BASIC RESEARCH USER FACILITIES

# VOLUME 2

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#### DEPARTMENT OF ENERGY

#### FISCAL YEAR 1989 CONGRESSIONAL BUDGET REQUEST

#### SUMMARY OF ESTIMATES BY APPROPRIATIONS

#### BUDGET AUTHORITY IN THOUSANDS OF DOLLARS

| FY 1987 | FY 1988  | FY 1989 |
|---------|----------|---------|
| ACTUAL  | ESTIMATE | REQUEST |
|         |          |         |

#### APPROPRIATIONS BEFORE THE ENERGY AND WATER DEVELOPMENT SUBCOMMITTEES:

| ENERGY SUPPLY RESEARCH AND DEVELOPMENT   | \$1,258,137 | \$1,860,087 | \$1,969,760 |
|--|-------------|-------------|-------------|
| URANIUM ENRICHMENT   | 1,209,494   | 950,000     | 1,184,000   |
| GENERAL SCIENCE AND RESEARCH   | 326,596     | 355,108     | 364,986     |
| ISOTOPE PRODUCTION AND DISTRIBUTION FUND   | 509         | 89          | 16,243      |
| BASIC RESEARCH USER FACILITIES   | 473,206     | 574,945     | 972,613     |
| ATOMIC ENERGY DEENSE ACTIVITIES  | 7,481,852   | 7,749,364   | 8,100,000   |
| DEPARTMENTAL ADMINISTRATION  | 226,874     | 164,243     | 177,814     |
| ALASKA POWER ADMINISTRATION  | 2,881       | 3,026       | 3,159       |
| BONNEVILLE POWER ADMINISTRATION  | 432,259     | 165,000     | 136,000     |
| SOUTHEASTERN POWER ADMINISTRATION  | 19,647      | 27,400      | 36,267      |
| SOUTHEASTERN - CONTINUING FUND   | 3,772       | •••         |             |
| SOUTHWESTERN POWER ADMINISTRATION  | 25,337      | 16,648      | 15,389      |
| WESTERN AREA POWER ADMINISTRATION  | 238,008     | 249,515     | 298,413     |
| WESTERN AREA POWER EMERGENCY FUND  | 225         | 24          |             |
| FEDERAL ENERGY REGULATORY COMMISSION   | 99,079      | 100,000     | 106,760     |
| NUCLEAR WASTE FUND   | 499,000     | 360,000     | 448,832     |
| GEOTHERMAL RESOURCES DEVELOPMENT FUND  | 72          | 72          | 75          |
| SUBTOTAL, APPROPRIATIONS BEFORE THE<br>ENERGY AND WATER DEVELOPMENT<br>SUBCOMMITTEES |             | 12,575,521  | 13,830,311  |

#### DEPARTMENT OF ENERGY

#### FISCAL YEAR 1989 CONGRESSIONAL BUDGET REQUEST

#### SUMMARY OF ESTIMATES BY APPROPRIATIONS

#### BUDGET AUTHORITY IN THOUSANDS OF DOLLARS

|   | FY 1987<br>ACTUAL | FY 1988<br>ESTIMATE |              |
|---|-------------------|---------------------|--------------|
| APPROPRIATIONS BEFORE THE INTERIOR<br>AND RELATED AGENCIES SUBCOMMITTEES: |                   |                     |              |
| ALTERNATIVE FUELS PRODUCTION  | 437               | •••                 | •••          |
| CLEAN COAL TECHNOLOGY   | •                 | 50,000              | 525,000      |
| FOSSIL ENERGY RESEARCH AND DEVELOPMENT                                    | 293,171           | 326,975             | 166,992      |
| NAVAL PETROLEUM AND OIL SHALE RESERVES                                    | 122,177           | 159,663             | 185,071      |
| ENERGY CONSERVATION   | 232,362           | 309,517             | 89,359       |
| ENERGY REGULATION   | 23,400            | 21,565              | 20,772       |
| EMERGENCY PREPAREDNESS  | 6,044             | 6,172               | 6,154        |
| STRATEGIC PETROLEUM RESERVE   | 147,433           | 164,162             | 173,421      |
| STRATEGIC PETROLEUM ACCOUNT   | •••               | 438,744             | 1,017,907    |
| ENERGY INFORMATION ACTIVITIES   | 60,301            | 61,398              | 62,856       |
| SUBTOTAL, INTERIOR AND RELATED AGENCIES                                   | ••••••            |                     |              |
| SUBTOTAL, INTERIOR AND RELATED AGENCIES<br>SUBCOMMITTEES                  | 885,325           | 1,538,196           | 2,247,532    |
| SUBTOTAL, ENERGY AND WATER DEVELOPMENT                                    |                   |                     |              |
| SUBTOTAL, ENERGY AND WATER DEVELOPMENT<br>SUBCOMMITTEES                   | 12,296,948        | 12,575,521          | 13,830,311   |
| SUBTOTAL, DEPARTMENT OF ENERGY  | 13,182,273        | 14,113,717          | 16,077,843   |
| PERMANENT - INDEFINITE APPROPRIATIONS:                                    |                   |                     |              |
| PAYMENTS TO STATES  | 912               | 1,839               | 1,909        |
| TOTAL, DEPARTMENT OF ENERGY   | \$13,183,185      |                     | \$16,079,752 |

# DEPARTMENT OF ENERGY FY 1989 CONGRESSIONAL STAFFING REQUEST TOTAL WORK FORCE

|  | FY1987<br>FTE<br>USAGE   | FY1988<br>-FY87  | FY1988<br>CONGR<br>REQ   | FY1989<br>-FY88 | FY1989<br>CONGR<br>REQ |
|--|--------------------------|------------------|--------------------------|-----------------|------------------------|
| ENERGY & WATER SUBCOMMITTEE<br>HEADQUARTERS<br>FIELD<br>SUBCOMMITTEE TOTAL | 4,697<br>9,356<br>14,053 | 264<br>58<br>322 | 4,961<br>9,414<br>14,375 | 73<br>-75<br>-2 | •                      |
| INTERIOR SUBCOMMITTEE<br>HEADQUARTERS<br>FIELD<br>SUBCOMMITTEE TOTAL       | 1,181<br>882<br>2,063    | 66<br>25<br>91   | 1,247<br>907<br>2,154    | -140            | 767                    |
| GRAND TOTAL  | 16,116                   | 413              | 16,529                   | -253            | 16,276                 |
| ADJUSTMENT   |                          | -263             | -263                     | -209            | -472                   |
| ADJUSTED TOTAL   | 16,116                   | 150              | 16,266                   | -462            | 15,804                 |

### DEPARTMENT OF ENERGY FY 1989 CONGRESSIONAL STAFFING REQUEST TOTAL WORK FORCE

FY1987 FY1988 FY1988 FY1989 FY1989

|  | USAGE                 | -FY87           | CONGR                | -FY88            | CONGR<br>REQ          |
|--|-----------------------|-----------------|----------------------|------------------|-----------------------|
| 10:ENERGY SUPPLY RESEARCH AND DEV<br>Headquarters<br>Field           | 922<br>644<br>278     | 14<br>7<br>7    | 936<br>651<br>285    | 10<br>10         | 946<br>661            |
| 15:URANIUM ENRICHMENT<br>HEADQUARTERS<br>FIELD                       | 278<br>59<br>48<br>11 | 8<br>8<br>0     | 67<br>56<br>11       | 0<br>0<br>0<br>0 | 285<br>67<br>56<br>11 |
| 20:GENERAL SCIENCE AND RESEARCH                                      | 42                    | -3              | 39                   | 777              | 46                    |
| HEADQUARTERS   | 42                    | -3              | 39                   |                  | 46                    |
| 25:ATOMIC ENERGY DEFENSE ACTIVITI                                    | 2,782                 | 88              | 2,870                | 40               | 2,910                 |
| HEADQUARTERS   | 492                   | 62              | 554                  | 21               | 575                   |
| FIELD  | 2,290                 | 26              | 2,316                | 19               | 2,335                 |
| 30:DEPARTMENTAL ADMINISTRATION                                       | 3,333                 | 133             | 3,466                | 6                | 3,472                 |
| HEADQUARTERS   | 1,756                 | 79              | 1,835                | 6                | 1,841                 |
| FIELD  | 1,577                 | 54              | 1,631                | 0                | 1,631                 |
| 34:ALASKA POWER ADMINISTRATION<br>Field<br>36:Bonneville Power Admin | 36<br>36              | -1<br>-1        | 35<br>35             | Ō                | 35<br>35              |
| FIELD<br>38:SOUTHEASTERN POWER ADMIN                                 | 3,398<br>3,398<br>38  | -18<br>-18<br>2 | 3,380<br>3,380<br>40 | -50<br>-50<br>0  | 3,330<br>3,330<br>40  |
| FIELD  | 38                    | 2               | 40                   | 0                | 40                    |
| 42:SOUTHWESTERN POWER ADMIN  | 192                   | -6              | 186                  | 0                | 186                   |
| FIELD  | 192                   | -6              | 186                  | 0                | 186                   |
| 46:WAPA - POWER MARKETING  | 1,160                 | -21             | 1,139                | 0                | 1,139                 |
| FIELD  | 1,160                 | -21             | 1,139                | 0                | 1,139                 |
| 50:WAPA - COLORADO RIVER BASIN                                       | 219                   | 21              | 240                  | 0                | 240                   |
| Field  | 219                   | 21              | 240                  | 0                | 240                   |
| 52:Federal Emergy Regulatory Comm                                    | 1,562                 | 97              | 1,659                | 0                | 1,659                 |
| HEADQUARTERS   | 1,562                 | 97              | 1,659                | 0                | 1,659                 |
| 54:NUCLEAR JASTE FUND  | 307                   | 8               | 315                  | -15              | 300                   |
| HEADQUARTERS   | 152                   | 14              | 166                  | 29               | 195                   |
| FIELD<br>56:Geothermal Resources Dev Fund                            | 155<br>1              | -6              | 149                  | -44<br>0         | 105                   |
| HEADQUARTERS   | 1                     | 0               | 1                    | 0                | 1                     |
| 63:CLEAN COAL TECHNOLOGY   | 0                     | 45              | 45                   | 13               | 58                    |
| HEADQUARTERS   | 0                     | 21              | 21                   | 5                | 26                    |
| FIELD  | 0                     | 24              | 24                   | 8                | 32                    |
| 65:FOSSIL ENERGY RESEARCH AND DEV                                    | 709                   | -6              | 703                  | -133             | 570                   |
| HEADQUARTERS   | 141                   | -3              | 138                  | -10              | 128                   |
| FIELD  | 568                   | -3              | 565                  | -123             | 442                   |
| 70:NAVAL PETROL & OIL SHALE RES                                      | 89                    | 6               | 95                   | 0                | 95                    |
| HEADQUARTERS   | 17                    | 5               | 22                   | 0                | 22                    |
| FIELD  | 72                    | 1               | 73                   | 0                | 73                    |
| 75:ENERGY CONSERVATION   | 320                   | 32              | 352                  | -109             | 243                   |
| HEADQUARTERS   | 197                   | 30              | 227                  | -84              | 143                   |
| FIELD  | 123                   | 2               | 125                  | -25              | 100                   |
| 80;EMERGENCY PREPAREDNESS  | 64                    | 7               | 71                   | 0                | 71                    |
| HEADQUARTERS   | 64                    | 7               | 71                   | 0                | 71                    |
| 81:ECONOMIC REGULATION   | 288                   | -13             | 275                  | -22              | 253                   |
| HEADQUARTERS   | 288                   | -13             | 275                  | -22              | 253                   |
| 85:STRATEGIC PETROLEUM RESERVE                                       | 147                   | 0               | 147                  | 0                | 147                   |
| HEADQUARTERS   | 28                    | -1              | 27                   |                  | 27                    |
| FIELD  | 119                   | 1               | 120                  | 0                | 120                   |
| 90:Energy information activities                                     | 446                   | 20              | 466                  | 0                | 466                   |
| Headquarters   | 446                   | 20              | 466                  | 0                | 466                   |
| 94:ADVANCES FOR CO-OP WORK   | 2                     | 0               | 2                    | 0                | 2                     |
| Field  | 2                     | 0               | 2                    | 0                | 2                     |
| GRAND TOTAL  | 16,116                | 413             | 16,529               | -253             | 16,276                |
| ADJUSTMENT   |                       | -263            | -263                 | -20 <b>9</b>     | -472                  |
| ADJUSTED TOTAL   | 16,116                | 6150            | 16,266               | -462             | 15,804                |

VOLUME II

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ENERGY SUPPLY RESEARCH AND DEVELOPMENT

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## DEPARTMENT OF ENERGY FY 1989 CONGRESSIONAL BUDGET REQUEST ENERGY SUPPLY RESEARCH AN DEVELOPMENT

# OVERVIEW

# TECHNICAL INFORMATION MANAGEMENT PROGRAM

The Department of Energy (DOE) must ensure that the scientific and technical information (STI) resulting from the Agency's multibillion dollar research and development (R&D) investment is effectively managed, controlled, and disseminated, and that management of STI is considered an integral part of the R&D process from the initial planning stage through project completion. It must also ensure that Departmental elements managing and carrying out the Department's R&D programs have access to the STI needed to perform their work, regardless of the source, and that STI is shared with other government agencies and the private sector as appropriate.

The Scientific and Technical Information Program (STIP) represents a Department-wide approach to managing STI and is carried out at many levels within the Department and by its contractors.

Within the DOE infrastructure, the Office of Scientific and Technical Information (OSTI), through implementation of the Technical Information Management Program (TIMP), provides direction and leadership for the Department's STIP and furnishes a centralized base of support to assist Departmental Elements in producing, managing, and disseminating their STI, when such support is determined to be in the best economic and programmatic interests of the Department.

To fulfill these responsibilities, the TIMP operates in support of five major objectives:

- o To coordinate the establishment, communication, and implementation of policy, procedures, and standards for managing STI in the Department;
- o To manage and provide access to energy and nuclear defense STI;
- o To provide advice and assistance to DOE program offices in planning, developing, and implementing STIP activities;
- o To represent the Department and participate in interagency, international, and domestic STI activities; and
- o To appraise and evaluate the application of information products and services to determine their effectiveness in meeting policy and program objectives.

Some of OSTI's major accomplishments during FY 1987 include:

- o Planned, developed, and is operating an interactive realtime superconductivity information system to help insure U.S. competitiveness in the development and application of superconductivity basic research.
- o Developed and is operating in coordination with DOE's Defense Program, a multiagency Arms Control Data Base which includes comprehensive information on arms research utilized for authorizing research and disarmament negotiations.
- o Developed and is operating DOE's first on-line classified network which provides the communication link between OSTI's classified data resources and the Department's defense laboratories.
- o Undertook the management of an information program (Energy Technology Data Exchange) for the International Energy Agency which will make valuable foreign technology available to the U.S.

Specific major activities scheduled for startup or increased emphasis in FY 1989 include:

- o Upgrading of the OSTI facility to meet health and safety requirements, provide for more efficient operations, and enhance archival storage capabilities; and
- o Implementation of plans to upgrade management control and environmental protection of official DOE R&D records (600,000 records of research results reported in technical reports, 1948 to present).

# DEPARTMENT OF ENERGY FY 1989 CONGRESSIONAL BUDGET ENERGY SUPPLY RESEARCH AND DEVELOPMENT (dollars in thousands)

# LEAD TABLE

# Technical Information Management Program

| Activity   | <u>FY 1987</u>                          | FY 1988<br>Approrpiation                | FY 1989<br>Base                  | FY 1989<br>Request                          | Program<br>Request<br>Dollar   |                           |
|--|---|---|----------------------------------|---|--------------------------------|---------------------------|
| Technical Information<br>Management Program  |   |   |                                  |   |                                |                           |
| Operating Expenses<br>Capital Equipment<br>Line Item Construction<br>Subtotal          | \$13,848<br>850<br><u>0</u><br>\$14,698 | \$13,100<br>900<br><u>0</u><br>\$14,000 | \$13,100<br>900<br>0<br>\$14,000 | \$13,100<br>900<br><u>2,500</u><br>\$16,500 | \$0<br>0<br>+2,500<br>\$+2,500 | 0%<br>0%<br>+100%<br>+18% |
| Less funds from other<br>sources<br>Total, Technical Information<br>Management Program | <u>-4,923</u><br>\$ 9,775               | 0<br>\$14,000                           | 0<br>\$14,000                    | 0<br>\$16,500                               | 0<br>\$+2,500                  | <u> </u>                  |
| Total FTEs   | 169                                     | 175                                     | 175                              | 175   |                                |                           |
| Authorization: Section 31, P.L. 83-7   | 03                                      |   |                                  |   |                                |                           |

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# DEPARTMENT OF ENERGY FY 1989 CONGRESSIONAL BUDGET ENERGY SUPPLY RESEARCH AND DEVELOPMENT (dollars in thousands)

# SUMMARY OF CHANGES

# Technical Information Management Program

| FY 1988 Appropriation   | \$14,000 |
|---|----------|
| Adjustments - Pay cost supplemental   | 0        |
| FY 1989 Base  | \$14,000 |
| Construction  |          |
| <ul> <li>Provides for upgrading of OSTI facility to meet environmental, health, safety, and<br/>security requirements and to extend the serviceable life of the facility</li> </ul> | +2,500   |
| FY 1989 Congressional Budget Request  | \$16,500 |

#### DEPARTMENT OF ENERGY FY 1989 CONGRESSIONAL BUDGET REQUEST ENERGY SUPPLY RESEARCH AND DEVELOPMENT (dollars in thousands)

#### KEY ACTIVITY SUMMARY

#### TECHNICAL INFORMATION MANAGEMENT PROGRAM

#### I. Preface: Technical Information Management Program

The Scientific and Technical Information Program (STIP) represents a Department-wide approach to managing STI and is carried out at many levels within the Department and by its contractors. Within the DOE Infrastructure, the Office of Scientific and Technical information (OSTI), through implementation of the Technical Information Management Program (TIMP), is responsible for providing direction and leadership for the Department's STIP, and for furnishing a centralized base of support to assist Departmental elements in producing, managing, and disseminating their STI, when such support is determined to be in the best economic and programmatic interests of the Department. To accomplish this role, OSTI performs a number of specific activities in support of four major TIMP objectives:

- o Coordinating the establishment, communication, and implementation of policy, procedures, and standards for managing STI in the Department.
- o Managing and providing access to energy and nuclear defense STI.
- o Providing advice and assistance to Program Offices in planning, developing, and implementing STIP activities.
- o Representing the Department and participating in Interagency, International, and domestic STI activities.

| II. A. Summary | Tabl | 0 |
|----------------|------|---|
|----------------|------|---|

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|     | Program Activity                         | FY 1987   | FY 1988   | FY 1989   | \$ Change |
|-----|--|-----------|-----------|-----------|-----------|
|     | Operating Expenses                       | \$ 13,848 | \$ 13,100 | \$ 13,100 | +0        |
|     | Capital Equipment                        | 850       | 900       | 900       | +0        |
|     | Line Item Construction                   | 0         | 0         | 2,500     | +100      |
|     | Subtotal                                 | \$ 14,698 | \$ 14,000 | \$ 16,500 | +18       |
|     | Less funds from other sources            | - 4,923   | 0         | 0         | 0         |
|     | Net Budget Authority                     | \$ 9,775  | \$ 14,000 | \$ 16,500 | +18       |
| ١١. | B. Major Laboratory and Facility Funding |           |           |           |           |
|     | Oak Ridge National Laboratory            | \$130     | \$130     | \$130     | 0         |

#### ill. Activity Descriptions

| Program Activity  | FY 1987  | FY 1988   | FY 1989  |
|-------------------|--|---|--|
| perating Expenses |  |   |  |
| Program Direction | Provides for facility services<br>and for FTEs required to<br>implement and operate the<br>TIMP, including: collecting,<br>organizing, analyzing, and<br>disseminating R&D results in<br>accordance with DOE policy;<br>managing DOE's Master file of<br>worldwide energy information;   | Continue to provide facility<br>services and FTEs required to<br>implement and operate TIMP.<br>(\$7,500) | Maintain same level of facil-<br>ity services and FTEs as<br>described for FY 1987 and<br>FY 1988. (\$7,500) |
|                   | designing, developing, end<br>operating systems to control<br>dissemination of classified<br>and sensitive information;<br>maintaining a database on<br>energy-related research in<br>progress; providing guidance,<br>assistance, and support to DOE<br>program managers in managing,<br>controlling, and disseminating<br>their scientific and technical<br>information (STI); recommend-<br>ing and participating in the<br>development of policy, stand- |   |  |
|                   | ards, and procedures for DOE's<br>STI program; negotlating and<br>implementing bilaterial and<br>multilateral agreements for<br>domestic and international<br>exchange of energy informa-<br>tion; monitoring receipt of<br>information deliverables from<br>DOE-funded R&D contracts; and<br>providing tools to assist in<br>controlling the flow of<br>information abroad. (\$7,500)   |   |  |

| Program Activity            | FY 1987  | FY 1988   | FY 1989  |
|-----------------------------|--|---|--|
| Acquisition and Appraisal   | Provides for contract services<br>to acquire and evaluate scien-<br>tific and technical informa-<br>tion which is made available<br>to DOE scientists and engl-<br>neers, and to meet require-<br>ments of certain international<br>exchange agreements. (\$1,300) | Continued same level of acqui-<br>sition and evaluation ser-<br>vices. Reduced funding<br>requirements through consoli-<br>dation of contracts. (\$1,200) | Continue FY 1987 and FY 1988<br>level of acquisition and<br>evaluation services。 (\$1,200) |
| Systems and Technology      | Provides for contract services<br>required to develop, build,<br>and maintain information<br>systems and to manage and<br>provide automated access to<br>scientific and technical<br>information. (\$2,448)  | Continue same level of<br>services, (\$2,500)   | Continues same level of<br>services as in FY 1988,<br>(\$2,500)                            |
| Products and Services       | Provides for contractor pro-<br>duction support services and<br>supplies required to produce<br>and make available the results<br>of DOE's energy research and<br>development program. (\$2,600)   | Continue essentially same<br>level of products and services<br>at a lower funding level<br>contingent on additional cost<br>recovery. (\$1,900)           | Continue same level of ser-<br>vices as in FY 1988. (\$1,900)                              |
| Subtotal Operating Expenses | \$13,848   | \$13,100  | \$13,100   |

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| III. Activity Descriptions<br>Program Activity | FY 1987  | FY 1988   | FY 1989   |  |
|--|--|---|---|--|
| <u>Capital Equipment</u>                       | Provides for ADP and duplicat-<br>ing equipment to support DOE's<br>centralized technical informa-<br>tion activities. (\$850) | Maintain esentially same level<br>of equipment as FY 1987,<br>Increase primarily for<br>escalation, | Continues same level of<br>equipment as FY 1988,  |  |
| Subtotal Capital Equipment                     | \$ 850   | <b>\$</b> 900   | \$ 900  |  |
| Construction                                   | 0  | 0   | Provides for line item<br>construction project for the<br>upgrading of the OSTI facility<br>to meet environmental, health,<br>safety, and security<br>requirements; enhance archival<br>storage capabilities; and<br>extending the serviceable life<br>of the facility. (\$2,500) |  |
| Subtotal Construction                          | 0  | 0   | \$ 2,500  |  |
| Total  | \$14,698   | \$14,000  | \$16,500  |  |

#### DEPARTMENT OF ENERGY FY 1989 CONGRESSIONAL BUDGET REQUEST ENERGY SUPPLY RESEARCH AND DEVELOPMENT (doilars in thousands)

#### KEY ACTIVITY SUMMARY

#### CONSTRUCTION PROJECTS

#### Technical Information Management Program

#### IV. A. Construction Project Summary

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|             |                          | Total       |              |         |           |         |  |
|-------------|--------------------------|-------------|--------------|---------|-----------|---------|--|
|             |                          | Prior Year  | FY 1988      | FY 1989 | Remaining |         |  |
| Project No. | Project Title            | Obligations | Appropriated | Request | Balance   | TEC     |  |
|             |                          |             |              |         |           |         |  |
| 89-LA-1     | Upgrade of OSTI Facility |             |              | \$2,500 |           | \$2,500 |  |

#### DEPARTMENT OF ENERGY FY 1989 CONGRESSIONAL BUDGET REQUEST ENERGY SUPPLY RESEARCH AND DEVELOPMENT (dollars in thousands)

#### KEY ACTIVITY CONSTRUCTION PROJECT SUMMARY

#### Technical Information Management Program

#### IV. B. Plant Funded Construction Project

| <ol> <li>Project title and location:</li> </ol> | 89-LA-1, Upgrade of OSTI Facility, Oak Ridge, Tennessee | Project TEC: \$2,500         |
|---|---|------------------------------|
|   |   | Start Date: 1st Qtr. FY 1989 |
|   |   | Completion                   |
|   |   | Date: 3rd Qtr. FY 1990       |
|   |   |                              |

#### 2. Financial Schedule:

| Fiscal Year | Appropriated | Obligations | Costs   |  |
|-------------|--------------|-------------|---------|--|
| 1989        | \$2,500      | \$2,500     | \$ 950  |  |
| 1990        |              |             | \$1,550 |  |

#### 3. Narrative:

The OSTI facility is approximately forty years old. It was originally constructed for warehouse purposes, and in the early 1950's It was renovated to include office and production areas and now houses over 300 DOE and DOE contractor employees. No major upgrades have been made to the facility since the 1950s. Recently the facility was inspected and found to have the following problems and needs:

- Overloaded and out-dated electrical service, including questionable capacity of emergency electrical power and lighting system.

- Inadequate sprinkler protection.
- Inadequate general HVAC system which has exceeded its useful life.
- Deteriorated roof, which is at the end of its useful life
- Insufficient building exit flow and security provisions.
- Inadequate environmental conditions and fire separation in Archive area, as well as possible shortage of storage area for future needs.

- Asbestos cleanup.

The proposed changes will correct safety problems which pose a threat to employees. Further, the project will extend the life of the existing building and facilitate operations by fitting the building systems to the current equipment. Improvements to the Archive Area will provide the stable environment required for long-term storage of valuable documents. Replacement of the roof will extend the life of the facility and will be more energy efficient. The HVAC renovation will remove asbestos and will be more efficient and less costly to maintain.

# DEPARTMENT OF ENERGY FY 1989 CONGRESSIONAL BUDGET ENERGY SUPPLY RESEARCH AND DEVELOPMENT (dollars in thousands)

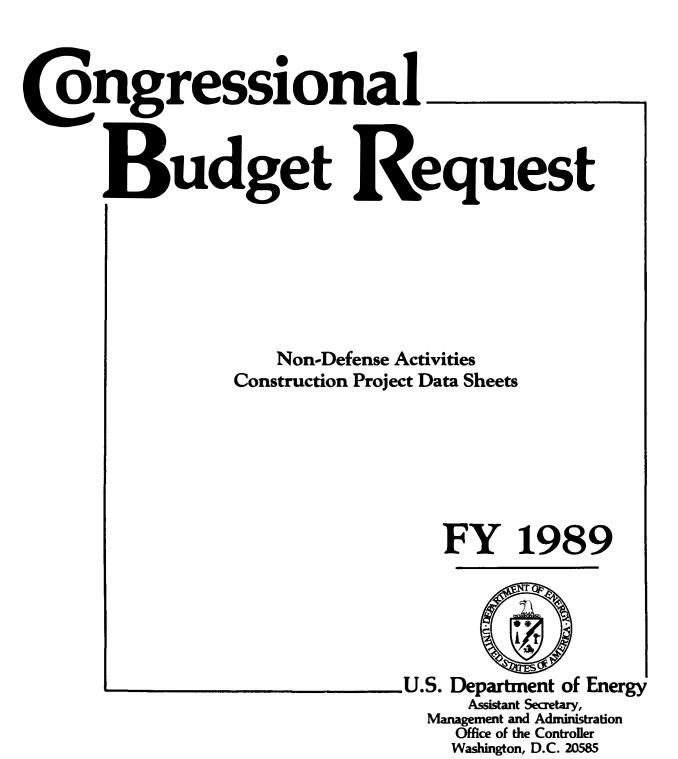
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# OBJECT CLASS SUMMARY

# Technical Information Management Program

|  | <u>FY 1987</u>                            | FY 1988                                   | FY 1989  |
|--|---|---|--|
| Direct Funding:  |   |   |  |
| <pre>11.1 Full-time permanent 11.3 Other than full-time 11.5 Other compensation 11.9. Total personnel compensation</pre> | \$4,796<br>287<br>163<br>5,246            | \$ 5,087<br>304<br><u>161</u><br>5,552    | \$ 5,087<br>304<br><u>161</u><br>5,552               |
| <pre>12.1 Benefits 21.0 Travel 25.0 Other services 31.0 Equipment 32.0 Land and Structure 99.0 Subtotal</pre>            | 722<br>135<br>7,745<br>850<br>0<br>14,698 | 811<br>140<br>6,597<br>900<br>0<br>14,000 | 957<br>140<br>6,451<br>900<br><u>2,500</u><br>16,500 |
| Less funds from other<br>sources<br>Totals   | -4,923<br>\$ 9,775                        | <u>0</u><br>\$14,000                      | 0<br>\$16,500  |

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February 1988

# DEPARTMENT OF ENERGY FISCAL YEAR 1989 CONGRESSIONAL BUDGET REQUEST CONSTRUCTION PROJECT DATA SHEETS ENERGY SUPPLY RESEARCH AND DEVELOPMENT BASIC RESEARCH USER FACILITIES GENERAL SCIENCE AND RESEARCH URANIUM ENRICHMENT NAVAL PETROLEUM AND OIL SHALE RESERVES FOSSIL ENERGY RESEARCH AND DEVELOPMENT

| Energy Supply Research and Development | 5   |
|--|-----|
| Basic Research User Facilities         | 357 |
| General Sceince and Research           | 437 |
| Uranium Enrichment                     | 455 |
| Naval Petroleum and Oil Shale Reserves | 481 |
| Fossil Energy Research and Development | 541 |

# NON-DEFENSE CONSTRUCTION PROJECT DATA SHEETS

ENERGY SUPPLY RESEARCH AND DEVELOPMENT

#### DEPARTMENT OF ENERGY FY 1989 CONGRESSIONAL BUDGET ENERGY SUPPLY RESEARCH AND DEVELOPMENT

#### CONSTRUCTION PROJECT DATA SHEET

#### TECHNICAL INFORMATION MANAGEMENT PROGRAM

|                  |  | (Ta                         | bular dollars in th                       | ousands. Narrative             | material in whole         | e dollars.)                      |                                  |
|------------------|--|-----------------------------|---|--------------------------------|---------------------------|----------------------------------|----------------------------------|
| ۱.               | Title, and location of                       | •                           | grade of OSTI Facil<br>k Ridge, Tennessee | İty                            |                           | 2.                               | Project No.: 89-A-10             |
| 3.               | Date A-E work initia                         | ted: <u>1st</u> Quar        | ter FY 1989                               |                                |                           | 5. Previous C                    | ost Estimate: None               |
| Sa.              | Date physical constru                        |                             |   | 89                             |                           | 6. Current Co<br>Date: Aug       | st Estimate: \$2,500<br>ust 1987 |
| / <u>.</u><br>/. | Date construction end<br>Financial Schedule: | is: 3rd Quart               | er FY 1990                                |                                |                           |                                  |                                  |
| •                | - maneral school of                          | Fiscal Year<br>1989<br>1990 | Authorizations<br>\$2,500<br>0            | Approprlations<br>\$2,500<br>0 | Obligations<br>2,500<br>0 | <u>Costs</u><br>\$950<br>\$1,550 |                                  |

#### 8. Brief Physical Description of Project:

This project will update and renovate the existing building and building systems of the Office of Scientific and Technical Information facility in Oak Ridge, Tennessee. The facility is a single level facility with 127,000 square feet. New electrical service will be provided for changed functions and safety improvements. The Archive Area will be expanded and improved. New sprinklers will be installed for safety improvements. The existing sprinkler systems and part of the HVAC systems will be modified to fit changed building and equipment configurations. The modification to the HVAC will allow in the future the orderly modification and replacement of the remainder of the entire system as required. The roof will be replaced with improved materials. Building exit flow and security provisions will be enhanced. Asbestos will be removed during renovation of the HVAC system.

#### 1. Title and location of project: Upgrade of OSTI Facility Oak Ridge, Tennessee

#### 9. Purpose, Justification of Need for and Scope of Project:

Renovation of the OSTI facility in Oak Ridge, Tennessee is required to enable OSTI to perform an expanding mission and to protect personnel and valuable scientific and technical information. The OSTI facility is approximately forty years old. It was originally constructed for warehouse purposes, and in the early 1950s it was renovated to include office and production areas and now houses over 300 DOE and DOE contractor employees. No major upgrades have been made to the facility since the 1950s. Recently the facility was inspected and found to have the following problems and needs:

- Overloaded and out-dated electrical service, including questionable capacity of emergency electrical power and lighting system.
- Inadequate sprinkler protection.
- Inadequate general HVAC system which has exceeded its useful life.
- Deteriorated roof, which is at the end of its useful life
- Insufficient building exit flow and inefficient security provisions.
- Inadequate environmental conditions and fire separation in Archive Area, as well as possible shortage of storage area for future needs.
- Asbestos cleanup.

The proposed changes will correct safety problems which pose a threat to employees. Further, the project will extend the life of the existing building and facilitate operations by fitting the building systems to the current equipment. Improvements to the Archive Area will provide the stable environment required for long-term storage of valuable documents, a primary OSTI mission. Replacement of the roof will extend the life of the facility and will be more energy efficient. The HVAC renovation will remove asbestos hazards and will be more efficient and less costly to maintain.

| 10. | Details of Cost Estimate  | ltem<br><u>Cost</u> | Total<br><u>Cost</u> |
|-----|---|---------------------|----------------------|
|     | <ul> <li>a. Engineering, design, and inspection at approximately 15 percent of construction costs, item b</li> <li>b. Construction costs</li> <li>(1) Building modifications - Safeguards and Security related</li> </ul> | 100                 | \$263<br>1,793       |
|     | (2) Building modifications - Other<br>c. Contingency at approximately 22 per cent of above costs<br>Total project costs   | 1,693               | 444<br>\$2,500       |

#### 11. Method of Performance

Titles i, ii, and ill engineering will be accomplished by a prime A/E contractor. Construction and procurement will be accomplished by the Oak Ridge on-site cost plus award fee contractor and fixed-price prime contractor(s) and subcontractor(s) awarded on the basis of competitive bidding. Construction in classified areas will be performed by cost plus award fee contractor(s).

#### 12. Funding Schedule of Project Funding and Other Related Funding Requirements:

|    |   | Prior<br>Years                      | FY 1989        | FY 1990                             | Total   |
|----|---|-------------------------------------|----------------|-------------------------------------|---------|
| a. | Total project funding                             |                                     |                |                                     |         |
|    | (1) Total facility costs                          |                                     |                |                                     |         |
|    | (a) Construction and line item                    | . 0                                 | \$950          | \$1,550                             | \$2,500 |
|    | (b) PE&D  | • 0                                 | 0              | 0                                   | 0       |
|    | (c) Expense funded equipment                      | • 0                                 | 0              | 0                                   | 0       |
|    | (d) Inventories                                   | •0                                  | 0              | 0                                   | 0       |
|    | Total facility costs                              | • 0                                 | \$950          | \$1,550                             | \$2,500 |
|    | (2) Other project funding                         |                                     |                |                                     |         |
|    | (a) R&D necessary to complete construction.       | . 0                                 | 0              | 0                                   | 0       |
|    | (b) Other project related costs                   | • 0                                 | 0              | 0                                   | 0       |
|    | Total project funding                             | . 0                                 | \$950          | \$1,550                             | \$2,500 |
| b. | Total related funding requirements                |                                     |                |                                     |         |
|    | (1) Facility operating costs                      |                                     |                | • • • • • • • • • • • • • • • • • • | 0       |
|    | (2) Programmatic operating expenses directly rela | ated to the fa                      | cility         |                                     | 0       |
|    | (3) Capital equipment not related to construction | but related                         | to the         |                                     |         |
|    | programmatic effort in the facility               |                                     |                | •••••                               | 0       |
|    | (4) GPP or other construction related to programm | natic effort l                      | n the facility | •••••                               | 0       |
|    | (5) Other costs                                   |                                     |                | • • • • • • • • • • • • • • • • • • | 0       |
|    | Total other related annual costs                  | • • • • • • • • • • • • • • • • • • | •••••          | •••••                               | 0       |

1. Title and location of project: Upgrade of OSTI Facility Oak Ridge, Tennessee

#### 13. Narrative Explanation of Total Project Funding and Other Related Funding Requirements

(None)

#### 14. Incorporation of Fallout Shelters in Future Federal Buildings

This project does not include the construction of new buildings or building additions; therefore, the provision for failout shelters is not applicable.

#### 15. Incorporation of Measures for the Prevention, Control, and Abatement of Environmental Pollution at Federal Buildings

As presently conceived, implementation of this project will not generate any air or water pollutants and will be in compliance with known Federal and State standards.

#### 16. Evaluation of Flood Hazards

This project will be located in areas not subject to flooding, determined in accordance with Executive Order 11988.

#### 17. Environmental Impact

No environmental impact is foreseen. This project will comply with the National Environmental Policy Act and related regulations and guidelines including the Clean Air Act, Clean Water Act, and the Endangered Species Act. The facility is not located in a flood plain/wetland.

#### 18. Accessibility for the Handicapped

The design of this project will be in accordance with the Architectural Barriers Act (Public Law 90-480) and implementing instructions in the Federal Properties Management Regulations.