
Implementation Plan for the Supplemental Environmental Impact Statement for the Superconducting Super Collider Project

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CONTENTS

1	INTRODUCTION	1
2	BACKGROUND	3
3	PROPOSED ACTION	5
4	THE EIS PROCESS	7
4.1	Purpose	7
4.2	Timing	7
4.3	EIS Preparation and Contractor Roles	7
5	ISSUE IDENTIFICATION	9
5.1	Earth Resources	9
5.2	Surface Water Resources	9
5.3	Groundwater Resources	10
5.4	Air Quality	10
5.5	Noise	11
5.6	Blasting	11
5.7	Waste Disposition	11
5.8	Biotic Resources	12
5.9	Health and Safety	13
5.10	Land Use	13
5.11	Socioeconomics	13
5.12	Infrastructure	14
5.13	Cultural and Paleontological Resources	14
5.14	Visual Resources	14
6	PROPOSED SEIS OUTLINE	15
	BIBLIOGRAPHY	20
APPENDIX A:	Proposed Notice of Preparation for the Supplemental Environmental Impact Statement	21
APPENDIX B:	Activities and Responsibilities for the Supplemental Environmental Impact Statement	25
APPENDIX C:	Conflict of Interest as Described by the National Environmental Policy Act (NEPA) and Argonne National Laboratory Disclosure Statement	29
APPENDIX D:	Department of Energy Record of Decision: Superconducting Super Collider	33

TABLES

1	Important SSC Site-Selection Events and Dates.....	4
2	SSC Supplemental EIS Schedule	8
3	Proposed Outline of the Superconducting Super Collider Supplemental Environmental Impact Statement.....	15

FIGURE

1	SSC Ring and Associated Facilities at the Texas Site	6
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IMPLEMENTATION PLAN FOR THE SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT FOR THE SUPERCONDUCTING SUPER COLLIDER PROJECT

1 INTRODUCTION

The Department of Energy (DOE) is preparing a Supplemental Environmental Impact Statement (SEIS) for construction and operation of the Superconducting Super Collider (SSC). The agency's commitment to prepare this document was stated in the Record of Decision (ROD) (see Appendix D) to proceed with the SSC, signed in January 1989 by the Secretary of Energy. The SEIS will analyze potential impacts from the site-specific design and of the SSC and assess alternative measures to mitigate potentially adverse impacts.

The purpose of this implementation plan is to provide guidance to DOE for the preparation of the SEIS. This plan includes a brief description of the proposed action and the planning process leading to the development of the SEIS. It provides information on compliance with the National Environmental Policy Act (NEPA) (Public Law [P.L.] 91-190, 42 USC 4321-4347, 1970; as amended in P.L. 94-52, and 94-83), the Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and DOE NEPA guidelines (52 FR 47662). Also included are an outline of the SEIS, a description of how the SEIS will be prepared, and other data on schedules, page limits, and allocation of responsibilities among participating organizations.

The SEIS will be a site-specific document tiered from the 1988 environmental impact statement (EIS) (DOE/EIS-0138). The supplement will identify and assess impacts that could result from the proposed SSC layout, facility design, and potential design modifications. The SEIS will also consider the impacts that could result from construction of ancillary facilities, such as access roads and utility lines, and disposal of tunneling spoils. The scope of the SEIS will be limited to consideration of the commitments made in the EIS comment response document and issues resulting from further refinement of the SSC design.

As defined in 40 CFR 1501.7, an early and open scoping process was conducted before development of the 1988 EIS. The issues raised assisted DOE in defining the scope of the document to be prepared, while assuring that public concerns would be addressed. Subsequently, public and interagency evaluation of the draft EIS document was conducted from January 22 through March 15, 1988. Both written comments and transcripts of oral comments from the public hearings were then considered to evaluate and guide development of the final document. Almost 5,000 letters were received concerning the draft EIS, with nearly 500 from residents of Texas. The final EIS was issued in December 1988 and included a comment response section that responded to all written and oral public comments.

Although additional public involvement is encouraged through public hearings that will be held on the draft SEIS, no additional formal scoping meetings have been planned or are required for the SEIS. The extensive input received concerning the 1988

EIS, from the scoping and from the subsequent draft EIS comments and hearings, is believed to be sufficient. However, if new issues are submitted during the development of the SEIS, they will be reviewed and, if appropriate, added to the issues list.

The SEIS will contain site-specific design information and additional site data. However, data will be referenced and summarized as much as possible from the 1998 EIS, which will minimize duplication of readily available information. Unresolved environmental issues from the comment response document will be analyzed. Strategies for reducing environmental impacts will be developed, with summaries included of those mitigations previously discussed in the EIS. Additional mitigation options will be identified and analyzed, as appropriate. The proposed table of contents for the SEIS is provided in Section 6.

The preparation of the SEIS will follow the process outlined in CEQ regulations (40 CFR 1502.9) and DOE NEPA guidelines (52 FR 47662). A Notice of Preparation of the SEIS was published in the *Federal Register* on June 11, 1990 (see Appendix A). Although preparation of an implementation plan for a SEIS is not required by DOE NEPA guidelines, DOE chose to develop this document to aid in defining the purpose and content of the SEIS document.

2 BACKGROUND

The SSC will be a particle accelerator for the study of the fundamental nature of matter. Two beams of protons, each with an energy of 20 trillion electron volts (TeV), will be accelerated and circulated in opposite directions on an oval path. The protons will be made to collide at any of up to six locations, where detectors will be placed to record collisions and to measure the products. These collisions, which will be 20 times more energetic than those produced in any existing facility, will enable scientists to probe much deeper into the structure of matter in the quest for a more thorough understanding of the fundamental properties and processes of nature.

The conceptual design for the SSC is the result of substantial research and development (R&D) that was formally begun late in 1983 (see Table 1). The detailed Reference Design Study, completed in March 1984, established the basic feasibility of the SSC, provided a preliminary cost estimate, and identified R&D needs. A significant amount of R&D was then done to verify the assumptions of this study. The R&D was conducted at leading national laboratories for high-energy physics and at universities as a coordinated national effort under the guidance of the SSC Central Design Group (CDG) formed by Universities Research Association, Inc. (URA), at the request of the DOE. In 1986, the CDG completed the *Conceptual Design Report* (CDR), which was thoroughly reviewed by DOE with the aid of many independent experts.

The Department's evaluations concluded that the project was technically feasible and that the cost and schedule estimates were fiscally sound. In 1987, the Invitation for Site Proposals (ISP) was issued by the DOE. It was this ISP that officially started the site-selection process. States used the CDR to develop their site proposals, using site-independent parts of the CDR plus the proposer's modifications of the design to accommodate the site.

Forty-three proposals were received, 36 of which were sent to the National Academy of Sciences/National Academy of Engineering (NAS/NAE) for recommendation of the best-qualified sites. In December 1987, the NAS/NAE submitted its report, *Siting the Superconducting Super Collider*, to DOE. This report recommended the best-qualified sites. DOE validated this report and announced the Best Qualified List (BQL) sites as the proposals submitted by Arizona, Colorado, Illinois, Michigan, North Carolina, Tennessee, and Texas. These sites were the alternatives used in development of the 1988 EIS. The Department published the draft EIS in August 1988. In November 1988, DOE announced the preferred site for the SSC. After issuance of the final EIS in December 1988, the Secretary of Energy signed the ROD on January 18, 1989 (see Appendix D). The ROD, published in the *Federal Register* on January 25, 1989, identified three actions: (1) DOE would proceed with the SSC; (2) Ellis County, Texas, was the selected site; and (3) DOE would prepare an SEIS.

TABLE 1 Important SSC Site-Selection Events and Dates

March 1984	SSC CDG issued the <i>Reference Designs Study</i> .
Dec. 1984	The planned site-selection procedure was announced.
June 1985	The <i>Site Parameters Report</i> was sent to all state governors for review and comment.
March 1986	DOE issued the <i>Conceptual Design Report</i> .
Feb. 1987	The DOE SSC Site Task Force was established.
March 1987	DOE issued notice in the <i>Federal Register</i> , indicating that it intended to solicit donations of land from states and other entities for the SSC site.
April 1987	DOE issued its <i>Invitation for Site Proposals</i> .
May 1987	DOE published an Advanced Notice of Intent to prepare an EIS for the SSC.
June 1987	The National Academy of Sciences/National Academy of Engineering named a committee (Academies' Committee) to assist DOE in the SSC site-selection process.
Sept. 1987	DOE received 43 site proposals and sent 36 qualified proposals to the Academies' Committee for review.
Dec. 1987	The Academies' Committee submitted its report (<i>Siting the Superconducting Super Collider</i>) to DOE, recommending the "best-qualified" sites.
Jan. 1988	DOE completed its review and validation of Academies' Committee report and announced the Best Qualified List (BQL) sites.
Feb. 1988	DOE held EIS scoping meetings at each of the seven BQL sites; The date for announcement of the preferred site was changed to November 1988.
April- July 1988	The DOE Task Force visited the BQL sites: Arizona, Texas, Illinois, Michigan, Tennessee, North Carolina, and Colorado.
Aug. 1988	DOE issued the Draft EIS.
Sept. 1988	The U.S. Environmental Protection Agency (EPA) published Notice of Availability for the SSC draft EIS, and the 45-day comment period began.
Sept.- Oct. 1988	Hearings on the draft EIS were held at seven BQL sites. The BQL states made presentations to the DOE Secretary. The Task Force received comments on the SSC draft EIS.
Nov. 1988	The Task Force completed a report on the evaluation of BQL sites. DOE announced the preferred site.
Dec. 1988	DOE issued the final EIS.
Jan. 1989	DOE published a Record of Decision and announced the final site selection.

Source: U.S. Department of Energy, *SSC Site Evaluations, A Report by the SSC Site Task Force*, Report DOE/ER-0392, Nov. 1988.

3 PROPOSED ACTION

The proposed action is the construction and operation of the SSC at the site in Ellis County, Texas, as proposed by the State of Texas and selected by DOE in the ROD of January 18, 1989. Two primary alternatives for this action at the site will be considered: (1) the conceptual design, modified to take into consideration the detailed geology of the Texas site as well as to accommodate a 2-TeV injector, a slightly larger (54-mile circumference) ring, and beam bypasses; and (2) the "no-action" alternative.

The proposed SSC design has been and continues to be refined to fit the particulars of the site, with the suitable placement of ancillary facilities and the development of mitigation options for minimization of environmental damage. The SSC design allows for flexibility in the actual placement of the ring footprint, the placement of shafts, and the placement of surface facilities. The flexibility associated with the Texas site allows designers the needed area to maneuver and adjust the placement of the ring and its facilities. The flexibility of the design to fit the site provides the major mechanism for mitigating impacts of SSC construction and operation.

A layout of the conceptual design of the SSC ring and associated facilities is depicted in Figure 1. The conceptual design of the SSC facility will encompass approximately 17,170 acres, with approximately 10,290 acres of fee simple real estate and approximately 6,880 acres of stratified fee real estate. The SSC site will be composed of the following surface facilities: (1) campus/laboratory areas that will serve approximately 3,000 personnel, including scientists and support staff; (2) an injector complex of four cascaded accelerators, in which protons will be accelerated from formation energies to 2 TeV; (3) possible areas for future expansion; (4) experimental (interaction) halls containing the particle detectors; (5) service/access areas at 18 locations around the ring; and (6) monitoring areas at the ends of underground muon vectors.

For fiscal year 1990, Congress has provided \$198.7 million for the SSC project, including \$129 million earmarked for start of construction. Total cost for construction of the SSC is being reevaluated by the Department in light of recent design changes. Revised cost estimates will be included in the SEIS. The SSC will be ready for operation in 1999, if it is assumed that construction begins in 1991 and if annual funding levels are sufficient.

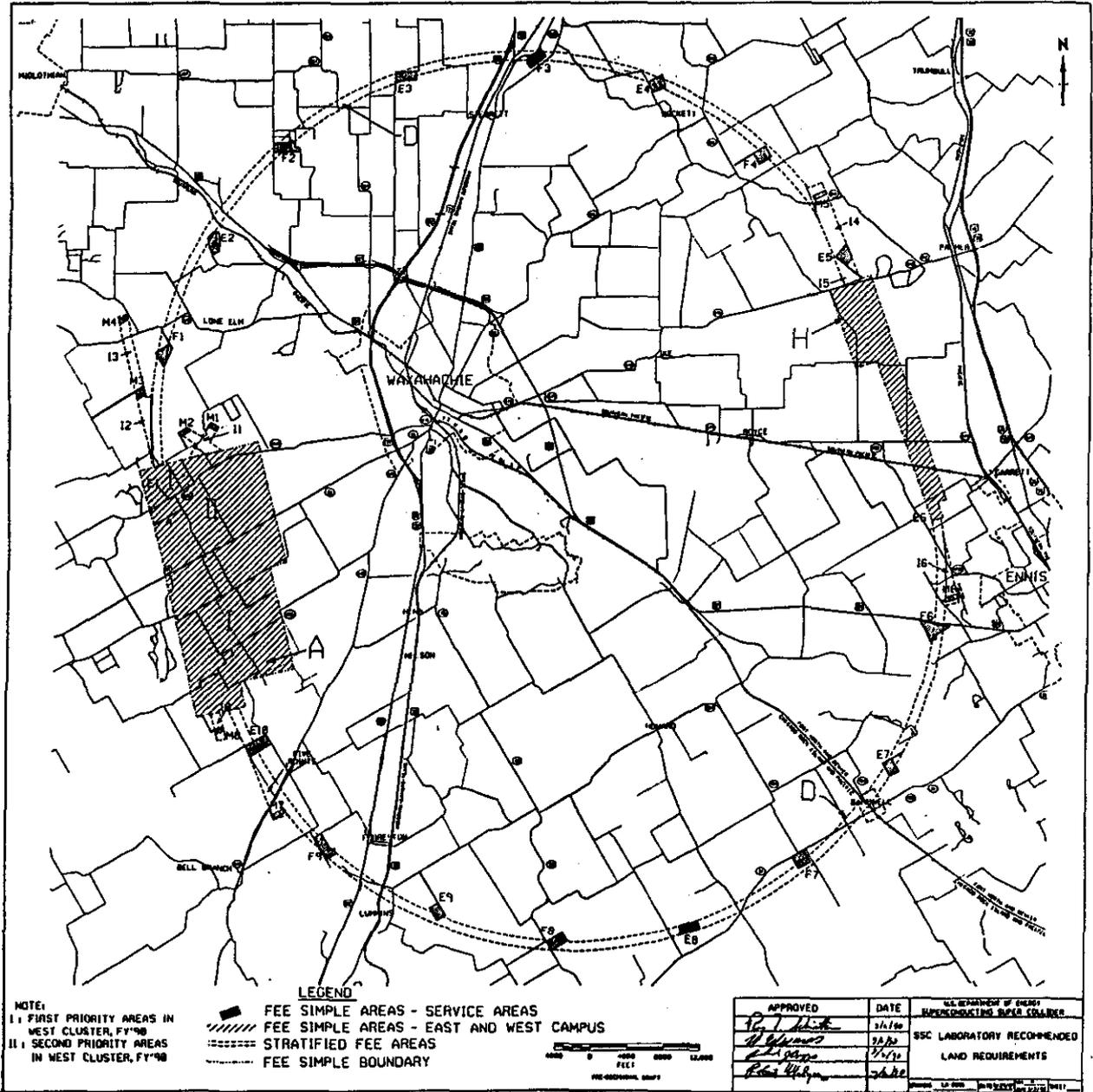


FIGURE 1 SSC Ring and Associated Facilities at the Texas Site

4 THE EIS PROCESS

4.1 PURPOSE

The purpose of the SEIS is to provide a full and fair discussion of the foreseeable environmental impacts of constructing and operating the SSC at the Texas site. The SEIS will inform decision makers and the public of reasonable on-site options to minimize adverse impacts and to enhance the quality of the human environment. It will identify and assess the impacts resulting from the proposed layout and facility design, and from potential design alternatives, with all configurations tailored to the site. It will also assess the impacts from construction of ancillary facilities, such as access roads and utility lines, and disposal of tunnel spoils. Reasonable alternatives related to construction of the SSC and ancillary facilities and the sequence of construction activities, designed to avoid or minimize adverse effects on the quality of the environment, will be discussed and analyzed to the extent necessary.

4.2 TIMING

Preparation of the SEIS is scheduled to proceed in parallel with design-cost estimation, R&D, the magnet program, and laboratory development. The necessary interaction between Argonne National Laboratory/Universities Research Association (ANL/URA) and the design team will ensure that potential environmental problems associated with the engineering design can be dealt with early in the process. This interaction will also help assure, as the design evolves, dissemination of consistent and up-to-date data needed for the development of the SEIS. State and local agencies, the Texas National Research Laboratory Commission (TNRLC), and other federal agencies will also be involved in the process.

The proposed schedule for the SEIS is summarized in Table 2. It includes publication in the *Federal Register* of the Notice Regarding Preparation of a SEIS and identifies the activities necessary to prepare the draft SEIS for distribution. Public hearings on the draft SEIS, targeted for consultations with federal and state agencies, will continue throughout the process. A target date for distribution of the final SEIS has been set for late 1990, followed by issuance of the ROD.

4.3 EIS PREPARATION AND CONTRACTOR ROLES

The DOE Office of Energy Research (ER) has overall responsibility for the management, direction, and schedule of the SSC project. The Assistant Secretary for Environment, Safety and Health (EH) has independent overview and approval authority for the SEIS, in consultation with the Office of General Counsel (GC), and has ultimate responsibility for all NEPA documents. This implementation plan and any revisions will be approved by EH. Until such time as ER or another DOE Headquarters (DOE-Hq) organization assumes this responsibility, the DOE-CH Office has also been given line organization responsibility for NEPA compliance, including preparation of NEPA documents. The URA has been contracted to manage and operate the SSC. A subgroup

TABLE 2 SSC Supplemental EIS Schedule

Milestone Description	Date Due
Select Independent Contractor to Prepare SEIS	3/89
Produce SEIS Management Plan	4/89
Define Scope, Outline, and Assessment Methodologies for SEIS	4/89
Identify Required Data Needs	6/89
Initiate Field Work	6/89
Identify Design/Infrastructure Alternatives	10/89
Complete Environmental Walk-Overs	11/89
Complete Site-Specific Conceptual Design	12/89
DOE confirms SSC Footprint	3/90
Issue Notice Regarding SEIS Preparation	3/90
Develop Distribution List	3/90
Issue SEIS Implementation Plan	4/90
Draft SEIS to Headquarters for Approval	6/90
Draft SEIS Approved for Printing	7/90
EPA Issues Notice of Availability	8/90
Distribute Draft SEIS	8/90
Initiate Comment Period	8/90
Conduct Public Hearings	8/90
Close Comment Period	9/90
Final SEIS to Headquarters for Review	10/90
Final SEIS Approved for Printing	11/90
Distribute Final SEIS	11/90
EPA Issues Notice of Availability	11/90
Record of Decision	12/90

of the URA has been appointed as the Board of Overseers for the SSC. The URA will be responsible for site-specific adaptations of the SSC to the Texas site and data collection as specified by DOE. Argonne National Laboratory (ANL), located in Argonne, Illinois, will support DOE by providing an independent assessment of the environmental impacts from the construction and operation of the SSC at the Texas site and will review and advise DOE on the appropriateness of field data-collection plans. Appendix B shows SEIS activities and responsibilities.

Under 40 CFR 1506.5, EIS contractors are required to execute a disclosure statement prepared by the lead agency specifying that they have no financial or other interest in the outcome of the project. ANL has no such financial or other interest in the outcome of the project. Appendix C contains the disclosure statement for the SEIS. Participation in the SEIS by URA is limited to field work and data collection as a result of URA's interest in the outcome of the SSC project.

5 ISSUE IDENTIFICATION

Issues to be included in the SEIS were identified by reviewing the public and interagency comments, the responses to the comments, and the environmental analyses in the 1988 EIS. In addition, the material presented in the 1998 EIS was reviewed in light of refinements in the SSC conceptual design.

A summary of the major issues to be covered in the SEIS is provided below, along with a brief description of issue identification.

5.1 EARTH RESOURCES

The evolution of the design and placement of facilities at the Texas site necessitates that additional information be presented in the SEIS on:

- Geologic conditions at the site, and
- Spoil quantities and disposal plans.

Public comment from Texas citizens on the draft 1988 EIS also led to a commitment for further investigation of:

- Additional data on faults and potential impacts.

5.2 SURFACE WATER RESOURCES

A discussion of floodplains was introduced in the draft 1988 EIS and expanded in the final EIS. Public comment was also received on the topic of flood hazards and floodplain encroachment. Therefore, commitments were made to further examine in the SEIS:

- Location of facilities relative to surface water,
- Floodplain encroachment,
- Flash flooding,
- Effects of the project on stream flow and flood magnitude, and
- Plans for stream diversion.

The EPA and the public expressed concerns about SSC impacts on the quality and quantity of surface water resources. This information was discussed in both the draft and final EISs, and a commitment was made for expanded coverage in the SEIS of:

- Impacts of water quality,
- Impacts to existing water users,
- Depletion of surface water resources, and
- Effects of secondary development.

The draft and final EIS documents discussed possible erosion and runoff effects that could result from construction of the SSC. The public also commented on this topic, leading to a commitment for further discussion of:

- Runoff, siltation, and erosion control.

5.3 GROUNDWATER RESOURCES

Both the draft and the final EIS documents discuss the impacts of the SSC on available groundwater resources. EPA and public comments, both internal and external to the State of Texas, led to commitments for more detailed information in the SEIS on:

- Impacts on water supply systems (particularly the Rocket water supply),
- Impacts on existing groundwater users,
- Potential effects on the water table and recharge to the alluvial aquifer,
- Water quality analysis, monitoring, and mitigation,
- Impacts on wells and definitive criteria for well abandonment,
- Monitoring of wells,
- Impacts of well closures, and
- Compensation and mitigations.

Public comment and comments from the TNRLC led to a commitment for further assessment of:

- Impacts from septic tanks and leach fields.

In addition, the EPA requested information be provided on:

- Details of obtaining necessary water permits.

5.4 AIR QUALITY

The effects of construction and operation of the SSC on air quality were discussed in the draft EIS and further refined in the final EIS. The EPA and residents of numerous states identified areas in which more detailed analysis would be needed for the SEIS:

- Additional air-quality data and analysis,
- Representativeness of the data from monitoring the quality of background air,
- Analysis of pollutant emissions,
- Analysis of Prevention of Significant Deterioration (PSD),
- Permitting and regulatory requirements,
- Fugitive dust control measures, and
- Mitigative measures.

5.5 NOISE

The EIS discussed the sources of noise from the SSC and approximated the numbers of individuals who would be affected at each of the proposed sites. Public comment led to commitments for more specific information in the SEIS on:

- Annoyance to individuals at residential and school locations due to noise from construction and operating-plant activities,
- Spectral characterization of construction and operating equipment noise sources,
- Effects of wind and ground cover on the propagation of sound,
- Determination of site-specific construction-noise mitigation options, and
- Determination of site-specific operating-noise mitigation options.

5.6 BLASTING

EPA and public comments requested more detailed information on blasting than was included in the 1988 EIS. Commitments were made to include in the SEIS:

- Refined estimates of ground vibration and air-blast noise at residences and structures closest to blasting sites, based on review of blasting plans,
- Site-specific blasting-effects mitigation options, and
- Description of plans for monitoring blasting operations.

5.7 WASTE DISPOSITION

The EPA and the Centers for Disease Control (CDC), as well as the general public, were very interested in waste disposition. Their comments, as well as new site-specific information, will lead to detailed SEIS analyses in the SEIS of:

- Impacts from selection of a disposal site for radioactive waste,
- Impacts from new landfills,
- Impacts from wastewater treatment, and
- Composition of cooling tower blowdown.

Recent analysis of spoils disposal, a topic that had generated a significant amount of comment from both governmental agencies and the public, has led to a proposed new option for spoils disposal. The SEIS will analyze:

- Options for disposal and/or use of spoils, and
- Mitigation of impacts from spoils disposal.

5.8 BIOTIC RESOURCES

Both the draft and final EIS documents discussed the presence of threatened and endangered species at each of the seven sites considered. Because of the importance of this topic and the requirements of the Endangered Species Act of 1973, as well as public comment and comments from the TNRLC, DOE has committed to further:

- Surveys, evaluations, and impact mitigation for sensitive, threatened, or endangered species, or their habitats.

The Texas SSC Authority specifically commented on the location of black-capped vireo nesting sites, as described in the draft EIS. Because this species is endangered, a commitment was made for a:

- Survey for the presence of black-capped vireo habitat.

The draft and final EIS documents briefly discussed the commercial, recreational, and cultural importance of species at each of the seven sites. Public comment on the possible effects of SSC construction on both wildlife and vegetation resulted in the commitment to include in the SEIS detailed information concerning:

- Management of wildlife resources, and
- Mitigation of impacts to vegetation and wildlife.

The draft EIS contained general wetland mitigation strategies. The EPA, the Texas SSC Authority, and the general public had concerns over possible impacts to wetlands. The final EIS incorporated their concerns, with increased coverage of the topic and commitments for detailed discussion in the SEIS of:

- Presence of wetlands that may be affected, and
- Detailed plans to mitigate impacts to wetlands.

The draft SEIS briefly discussed the effect of SSC siting on Texas blackland prairie. No remnants of Texas blackland prairie are known to occur at the site. However, some remnants of such prairie do occur near the site. Concern over this resource led to a commitment to survey the area for the presence of native blackland prairie. The results of this survey will be included in the SEIS.

Refinements of the SSC design and site require detailed information in the SEIS on:

- Biotic composition of water bodies that occur in quarries that may be used for spoils disposal, and
- Potential impacts of evaporation ponds (related to physicochemical condition and location).

5.9 HEALTH AND SAFETY

The topic of fire ants was identified as an issue by Texans during public review of the draft EIS. This issue was briefly addressed in the final EIS, and a commitment has been made for the SEIS to further examine the:

- Effects of fire ants on worker and public safety.

Development of mitigation options in waste disposition requires the SEIS to include up-to-date detailed information on:

- Plans for transportation and storage of low-level radioactive waste, and
- Exposure to hazardous/toxic materials and wastes.

Public comment also requested further information on the effects of pesticides and herbicides. Site-specific details will allow inclusion in the SEIS of information on:

- Risks from pesticides and herbicides.

5.10 LAND USE

Much of the land use data needed for analyses depends on the final placement of the ring and its facilities. The SEIS will define in detail the following items:

- Loss of farmland, and
- Location of people relative to the facilities.

The DOE has decided to include in the land use analyses:

- Land use plans and regulations, and
- Land use plan alternatives for Ellis County.

5.11 SOCIOECONOMICS

The Texas SSC Authority and the general public commented on the economic effects that could result from construction and operation of the SSC. A commitment was made to discuss the following topics in more detail than had been provided in either the draft or final EIS documents:

- In-depth analysis of public finance trends in the region of influence,
- Secondary impacts from SSC siting (such as spending by the workers), and
- Detailed state mitigation strategies.

5.12 INFRASTRUCTURE

Detailed information on the siting of the SSC is required to develop infrastructure plans and mitigations for such things as electrical power, telecommunications, water, and gas. Transportation issues were of special interest to the TNRLC and the general public. The following topics will be covered in the SEIS:

- Site-specific adaptations of the SSC conceptual design and necessary infrastructure improvements,
- Truck routes,
- Changes in plans for road improvement, and
- Impact of constructing and operating the ancillary facilities, such as roads and powerlines, that are needed to support construction and operation of the SSC.

5.13 CULTURAL AND PALEONTOLOGICAL RESOURCES

The 1988 EIS committed to survey for cultural and paleontological resources, as requested by the State Historic Preservation Office. The results of those surveys will be contained in the SEIS. The SEIS will include a discussion of the following topics:

- Location and quality of architecturally historic sites,
- Results of paleontological field studies,
- Results of archaeological surveys, and
- Mitigation of impacts.

5.14 VISUAL RESOURCES

Information from the draft and final EIS documents will be updated with site-specific plans for SSC and its facilities. The SEIS will:

- Address visual impacts, based on the final site design and location, and
- Examine architectural solutions and landscaping to be considered for mitigation.

6 PROPOSED SEIS OUTLINE

The length of the SEIS is estimated to be approximately 400 pages. Material in the 1988 EIS may be referenced but will not be repeated. Table 3 gives the proposed outline of the SEIS.

TABLE 3 Proposed Outline of the Superconducting Super Collider Supplemental Environmental Impact Statement (SEIS)

FOREWORD

1 SUMMARY

- 1.1 Overview
- 1.2 Proposed Action and Modifications of Original Proposed Action and Alternatives
- 1.3 Purpose and Need for the Proposed Action
- 1.4 Environmental Consequences
- 1.5 Federal Permits, Licenses, and Other Entitlements
- 1.6 Changes in the Supplemental EIS from Site-Selection EIS
- 1.7 Summary of Public Involvement on the Site-Selection EIS

2 PROPOSED ACTION AND ALTERNATIVES (INCLUDING MODIFICATION TO ORIGINAL DESIGN AND LOCATION)

- 2.1 Description and Location of Super Collider Ring and Facilities
 - 2.1.1 Super Collider Ring
 - 2.1.2 Campus Area Facilities
- 2.2 Description and Location of Ancillary Facilities
 - 2.2.1 Service Areas
 - 2.2.2 Access Roads
 - 2.2.3 Water Line Routes
 - 2.2.4 Electrical Power Supply Routes
 - 2.2.5 Spoils Disposal Sites
- 2.3 Alternatives
 - 2.3.1 No Action
 - 2.3.2 1-TeV Injector Design
 - 2.3.3 2-TeV Injector Design
- 2.4 Design and Spoils Handling Modifications from Description Presented in Site-Selection EIS

3 AFFECTED ENVIRONMENT

- 3.1 Earth Resources
 - 3.1.1 Topography
 - 3.1.2 Stratigraphy
 - 3.1.3 Geologic Conditions
 - 3.1.4 Economic Geological Resources

TABLE 3 (Cont'd)

-
- 3.2 Water Resources
 - 3.2.1 Groundwater Hydrology and Quality
 - 3.2.1.1 Groundwater Hydrology
 - 3.2.1.2 Groundwater Quality
 - 3.2.2 Surface Water Hydrology and Quality
 - 3.2.2.1 Rivers and Streams
 - 3.2.2.2 Floodplains
 - 3.2.2.3 Wetlands
 - 3.2.3 Water Use
 - 3.3 Biotic Resources
 - 3.3.1 Native Plant Communities and Habitat Types
 - 3.3.2 Wildlife
 - 3.3.3 Aquatic Ecosystems
 - 3.3.4 Federal and State Protected Species
 - 3.3.5 Commercial and Recreational Species
 - 3.3.6 Agricultural Ecosystems
 - 3.4 Land Resources
 - 3.4.1 Historic and Existing Land Use
 - 3.4.2 Land Use Plans
 - 3.4.3 Ownership Patterns
 - 3.4.4 Prime and Important Farmlands
 - 3.5 Climate and Meteorology
 - 3.5.1 Temperature
 - 3.5.2 Precipitation and Humidity
 - 3.5.3 Winds
 - 3.5.4 Severe Weather Conditions
 - 3.6 Air Quality
 - 3.6.1 Ambient Air Quality
 - 3.6.2 Regional Air Pollutant Sources
 - 3.7 Noise and Vibration
 - 3.7.1 Noise
 - 3.7.2 Vibration
 - 3.8 Environmental Hazards and Waste Disposition
 - 3.8.1 Radiation
 - 3.8.1.1 Environmental Radiation
 - 3.8.1.2 Man-Made Radiation
 - 3.8.2 Non-Radioactive Environmental Hazards
 - 3.8.2.1 Hazardous and Toxic Materials
 - 3.8.2.2 Biological Hazards
 - 3.8.3 Solid and Industrial Waste Management from SSC Operations
 - 3.9 Socioeconomics
 - 3.9.1 Economic Activity, Labor Force, and Income
 - 3.9.2 Demographics and Housing
 - 3.9.3 Public Services
 - 3.10 Infrastructure
 - 3.10.1 Transportation Systems
 - 3.10.2 Utilities
 - 3.11 Cultural and Paleontological Resources
 - 3.11.1 Cultural Resources
 - 3.11.1.1 National Register Historical Sites

TABLE 3 (Cont'd)

	3.11.1.2	Archeological Sites
	3.11.2	Paleontological Resources
3.12		Visual Resources
	3.12.1	Resource Definition
	3.12.2	Visual Character and Sensitivity
4 ENVIRONMENTAL CONSEQUENCES		
4.1		Earth Resources
	4.1.1	Technical Approach and Methodology
	4.1.2	Topography
	4.1.3	Stratigraphy
	4.1.4	Geologic Conditions
	4.1.5	Economic Geological Resources
	4.1.6	Cumulative Impacts
	4.1.7	Mitigative Measures
4.2		Water Resources
	4.2.1	Technical Approach and Methodology
	4.2.2	Groundwater Hydrology and Quality
		4.2.2.1 Groundwater Hydrology
		4.2.2.2 Groundwater Quality
	4.2.3	Surface Water Hydrology and Quality
		4.2.3.1 Stream Flow
		4.2.3.2 Floodplains
		4.2.3.3 Wetlands
		4.2.3.4 Surface and Channel Erosion
		4.2.3.5 Water Quality
	4.2.4	Water Use
		4.2.4.1 Impacts on Current Water Users
		4.2.4.2 Impacts on Future Water Users
	4.2.5	Cumulative Impacts
	4.2.6	Mitigative Measures
4.3		Biotic Resources
	4.3.1	Technical Approach and Methodology
	4.3.2	Native Plant Communities and Habitat Types
	4.3.3	Wildlife
	4.3.4	Aquatic Ecosystems
	4.3.5	Federal and State Protected Species
	4.3.6	Commercial and Recreational Species
	4.3.7	Agricultural Ecosystems
	4.3.8	Cumulative Impacts
	4.3.9	Mitigative Measures
4.4		Land Resources
	4.4.1	Technical Approach and Methodology
	4.4.2	Existing Land Use
	4.4.3	Land Use Plans and Ownership Patterns
	4.4.4	Impacts on Prime and Important Farmlands
	4.4.5	Cumulative Impacts
	4.4.6	Mitigative Measures

TABLE 3 (Cont'd)

-
- 4.5 Air Quality
 - 4.5.1 Technical Approach and Methodology
 - 4.5.2 Regulatory Requirements
 - 4.5.3 Emissions Inventory and Meteorological Data
 - 4.5.4 Impacts on Air Quality
 - 4.5.5 Cumulative Impacts
 - 4.5.6 Mitigative Measures
 - 4.6 Noise and Vibration
 - 4.6.1 Noise Impacts
 - 4.6.1.1 Technical Approach and Methodology
 - 4.6.1.2 Source Terms and Assumptions for Impact Projections
 - 4.6.1.3 Construction-Period Noise Impacts
 - 4.6.1.4 Operating-Period Noise Impacts
 - 4.6.1.5 Cumulative Impacts
 - 4.6.1.6 Mitigative Measures
 - 4.6.2 Vibration (Blasting) Impacts
 - 4.6.2.1 Technical Approach and Methodology
 - 4.6.2.2 Source Terms and Assumptions for Impact Projections
 - 4.6.2.3 Ground Vibration Impacts to Nearest Residential Structures
 - 4.6.2.4 Air-Blast Noise Impacts to Humans
 - 4.6.2.5 Cumulative Impacts
 - 4.6.2.6 Mitigative Measures
 - 4.7 Human Health Effects
 - 4.7.1 Technical Approach and Methodology
 - 4.7.2 Source Terms and Assumptions for Impact Projections
 - 4.7.3 Routine Occupational Impacts
 - 4.7.3.1 Radiological Impacts
 - 4.7.3.2 Impacts from Hazardous and Toxic Materials
 - 4.7.3.3 Impacts from Fire Ants
 - 4.7.3.4 Public Health Impacts
 - 4.7.3.5 Impacts of Waste Disposal from SSC Operations
 - 4.7.4 Impacts from Accidents
 - 4.7.5 Cumulative Impacts
 - 4.7.6 Mitigative Measures
 - 4.8 Socioeconomics
 - 4.8.1 Technical Approach and Methodology
 - 4.8.2 Source Terms and Assumptions for Impact Projections
 - 4.8.3 Economic Activity and Labor Force
 - 4.8.4 Demographics and Housing
 - 4.8.5 Public Services
 - 4.8.6 Public Finance
 - 4.8.7 Cumulative Impacts
 - 4.8.8 Mitigative Measures
 - 4.9 Infrastructure
 - 4.9.1 Transportation Systems
 - 4.9.2 Utilities

TABLE 3 (Cont'd)

	4.9.3	Cumulative Impacts
	4.9.4	Mitigative Measures
4.10		Cultural and Paleontological Resources
	4.10.1	Technical Approach and Methodology
	4.10.2	Source Terms and Assumptions for Projecting Impacts
	4.10.3	Cultural Resources
	4.10.4	Paleontological Resources
	4.10.5	Cumulative Impacts
	4.10.6	Mitigative Measures
4.11		Visual Resources
	4.11.1	Technical Approach and Methodology
	4.11.2	Source Terms and Assumptions for Projecting Impacts
	4.11.3	Visual Impacts
	4.11.4	Cumulative Impacts
	4.11.5	Mitigative Measures
5		FEDERAL PERMITS, LICENSES, AND OTHER ENTITLEMENTS
6		LETTERS OF CONSULTATION
7		PREPARERS AND REVIEWERS
8		DISTRIBUTION LIST
9		REFERENCES
10		LIST OF APPENDIXES

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APPENDIX A

**PROPOSED NOTICE OF PREPARATION FOR THE SUPPLEMENTAL
ENVIRONMENTAL IMPACT STATEMENT**

*(Federal Register, Vol. 55, No. 112,
June 11, 1990, pp. 23585-23586)*

DEPARTMENT OF ENERGY

Preparation of a Supplemental Environmental Impact Statement for the Construction and Operation of the Superconducting Super Collider

AGENCY: Department of Energy.

ACTION: Notice regarding preparation of a Supplemental Environmental Impact Statement for the construction and operation of the Superconducting Super Collider.

SUMMARY: The U.S. Department of Energy (DOE) announces it has begun preparation of a supplement to the *Environmental Impact Statement (EIS)*, *Superconducting Super Collider (SSC)*, December 1988 [DOE/EIS-0138], (1988 EIS). The purpose of the Supplemental EIS (SEIS) is to analyze further the impacts from construction and operation of the SSC at the Ellis County, Texas, site based on site-specific design, and to assess alternative measures to mitigate potentially adverse impacts.

The SEIS is being prepared in accordance with the requirements of the National Environmental Policy Act (NEPA) of 1969, as amended, the Council on Environmental Quality (CEQ) NEPA regulations [40 CFR parts 1500-1508] and the DOE NEPA guidelines [52 FR 47662].

ADDRESSES: Persons requesting additional information regarding the SSC project should contact: Mr. G. John Scango, Office of Superconducting Super Collider (ER-90), Office of Energy Research, U.S. Department of Energy, Washington, DC 20545, (301) 353-6580.

For general information on the NEPA process, please contact: Carol M. Borgstrom, Director, Office of NEPA

Project Assistance (EH-25), U.S. Department of Energy, 1000 Independence Avenue, S.W., Washington, DC 20585, (202) 586-4600.

FOR FURTHER INFORMATION CONSULT: SSC technical and design reports, the 1988 EIS, and other background information on the SSC project may be found at the DOE Public Reading Room and the public libraries listed below:

DOE Reading Room

U.S. Department of Energy, Freedom of Information Reading Room, room 1E-190, Forrestal Building, 1000 Independence Avenue, S.W., Washington, DC 20585, (202) 586-6020.

Public Libraries

Sims Library, 515 West Main Street, Waxahachie, Texas 75165, (214) 937-2671.

Ennis Public Library, 501 West Ennis Avenue, Ennis, Texas 75119, (214) 875-5360.

SUPPLEMENTARY INFORMATION: On January 18, 1989, DOE issued a Record of Decision (ROD) to proceed with the SSC project and selected the Texas site as the location for the facility (54 FR 3651). The Texas site is located in Ellis County, about 25 miles south of Dallas and 35 miles southeast of Fort Worth. The ROD also committed DOE to preparation of the SEIS.

The SSC will be the world's largest particle accelerator. The SSC will include a collider ring tunnel about 54 miles in circumference, laboratory facilities housed in a campus area and various access and service areas located around the collider ring.

The Texas site offers the potential for flexibility in adjusting the location of

surface facilities along the collider ring, both for technical requirements and for mitigation of adverse impacts. The SEIS will identify and assess site-specific impacts from the proposed layout and facility design, and potential alternatives thereto. The SEIS also will consider the impacts of the construction of ancillary facilities, such as access roads and utility lines, and disposal of tunnel spoils.

In accordance with 10 CFR 1022.12, an assessment of site-specific impacts to floodplain and wetland areas potentially affected by the SSC will be included in the SEIS. DOE will modify the final design of the facility to avoid floodplain and wetland areas to the extent practicable.

The SEIS will address those issues identified in the 1988 EIS as needing further site-specific review. These issues include (but are not limited to):

- Geologic conditions.
- Surface water runoff.
- Floodplain encroachment.
- Wetlands.
- Water quality and use.
- Ground water.
- Air quality.
- Noise and vibration.
- Waste disposal and transportation.
- Ecology, including threatened and endangered species.
- Health effects, including those caused by fire ants.
- Land use changes.
- Socioeconomic conditions.
- Scenic and visual resources.
- Cultural resources.

Under the current schedule, DOE intends to issue a draft of the SEIS in late summer 1990. Public review and comment on the draft will be invited at that time.

DOE plans to hold public hearings on the draft at a location near the Texas

site. DOE intends to issue a final SEIS by late fall 1990, followed by a Record of Decision which will be issued no earlier than 30 days after EPA publishes a notice of the availability of the final SEIS.

DOE is compiling a mailing list of parties who may be interested in receiving the SEIS. The list includes applicable Federal, state and local agencies; potentially affected landowners; and national interest organizations. Individuals who would like to receive a copy of the draft SEIS should contact the DOE Energy Research Office, at the address given above as soon as possible.

Documents are available for inspection during normal office hours. For information on hours and availability, please contact the reading room or library.

Issued in Washington, DC, on June 5, 1990.

Peter N. Brush,

Acting Assistant Secretary, Environment, Safety and Health.

[FR Doc. 90-13433 Files 6-8-90; 8:45 am]

APPENDIX B
ACTIVITIES AND RESPONSIBILITIES FOR THE
SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

APPENDIX B

**ACTIVITIES AND RESPONSIBILITIES FOR THE
SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT**

Activities	Organizations ^{a,b}					
	ANL	M&O	CH	EH	GC	ER
Overall SEIS management	P	P	L	P	P	A
SEIS plans						
Notice of Preparation	-	-	P/L	A	C	C
Management plans	P	P	P/A/L	-	-	-
Quality assurance plans	P	P	P/A/L	-	-	-
Implementation Plan	P/L	R	C	A	C	C
Key assumptions	P/L	R	C	R	R	A
Cost plan	P	P	P/L	-	-	A
Schedule plan	P	P	P/L	C	C	A
Approach						
SEIS outline						
Scope (list of issues)	P/L	R	C	A	C	C
Design alternatives	R	P/L	C	Q	Q	A
Methods for analyses	P/L	R	A	Q	Q	Q
Identification of data needs	P/L	R	A	R	R	C
Source terms	R	P/L	A	Q	Q	Q
Site-specific design and schedule	R	P/L	R	-	-	A
Facility cost	-	P/L	R	-	-	A
Infrastructure						
Identify infrastructure needs	-	P/L	C	-	-	A
Construct improvements ^{c,d}	-	R	-	-	-	A
Incorporate into design	R	P/L	R	-	-	A
Incorporate into SEIS	P/L	R	R	R	R	A
Conduct impact analyses	P/L	R	C	A	C	C
Coordinate with state and federal agencies ^{e,f}	P	P	L	-	-	-
Field work						
Data requirements	P/L	R	A	Q	Q	C
Field work plans	R	P/L	A	-	-	C
Environmental evaluation	-	P/L	C	-	-	A
Land access	-	R	R	-	-	R
Collection of field data	R	P/L	R	Q	Q	A
Verification of field data	P/L	P	P	-	-	-

Activities	Organizations ^{a,b}					
	ANL	M&O	CH	EH	GC	ER
Preparation of document						
Prepare proposed action section	R	P/L	C	A	C	C
Prepare technical sections	P/L	R	C	A	C	C
Assemble Draft SEIS	P/L	R	C	A	C	C
Assemble Final SEIS	P/L	R	C	A	C	C
Hearings (plan and conduct)	P/L	-	A	C	C	R
Comment response	P/L	P	C	A	C	R
Produce camera-ready copy	P/L	-	-	-	-	-
Record of Decision						
Define distribution list	P/L	R	C	C	R	A
Print and distribute Draft and Final SEIS		U.S. Government Printing Office				
Record of Decision	R	R	P/L	A	C	A

^aOrganizations are abbreviated as follows:

ANL = Argonne National Laboratory

M&O = Management and Operating Contractor (Universities Research Association)

CH = DOE Chicago Operations Office

EH = DOE-HQ Assistant Secretary for Environment, Safety and Health

GC = DOE-HQ Office of General Counsel

ER = DOE-HQ Office of Energy Research

^bThe responsibilities assigned to the organizations are as follows:

P = Prepare or participate in the preparation

A = Approve or sign

C = Concur

R = Review and comment

Q = Audit, as needed

L = ER has all lead responsibilities. Delegations for compiling or coordinating activities are as indicated.

- = No defined role

^cNot required for SEIS development but directly related to the development of the SEIS.

^dAs stated in the Texas proposal.

^eTNRLC has a coordination role with other Texas state agencies.

^fEH will likely have a lead role with the Advisory Council on Historic Preservation because a Memorandum of Agreement (MOA) will need to be signed. If EPA-HQ is involved, DOE-HQ will take the lead role.

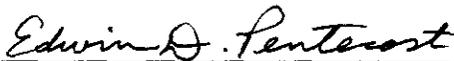
APPENDIX C

ARGONNE NATIONAL LABORATORY DISCLOSURE STATEMENT

APPENDIX C

ARGONNE NATIONAL LABORATORY DISCLOSURE STATEMENT

Argonne National Laboratory has no financial or other interest in the outcome of the Superconducting Super Collider Project.



Director
Office of NEPA Compliance
Environmental Assessment and
Information Sciences Division
Argonne National Laboratory

APPENDIX D

**DEPARTMENT OF ENERGY RECORD OF DECISION:
SUPERCONDUCTING SUPER COLLIDER**

APPENDIX D**DEPARTMENT OF ENERGY RECORD OF DECISION:
SUPERCONDUCTING SUPER COLLIDER**

Agency: Department of Energy (DOE).

Action: Record of Decision, Superconducting Super Collider (SSC).

Summary: DOE has decided to proceed with the SSC and that the location of the SSC will be in Ellis County, Texas. DOE will prepare a Supplemental Environmental Impact Statement (EIS) prior to construction of the SSC.

For Further Information Contact:

Dr. Wilmot Hess, Chairman
SSC Site Task Force
Office of Energy Research, ER-65/GTN
U.S. Department of Energy
Washington, D.C. 20545

Decision:

DOE has decided to proceed with the SSC and select the site proposed by the state of Texas as the location for the SSC. The Texas site is located in Ellis County, about 25 miles south of Dallas and 35 miles southeast of Fort Worth.

DOE has determined that this site is the location that will best meet its goal to permit the highest level of research productivity and effectiveness of the SSC, at a reasonable cost of construction and operation, with minimal adverse effect on the environment. Prior to construction of the SSC, DOE will prepare a Supplemental EIS to further analyze impacts at the Texas site based on site-specific design, and assess alternative measures to mitigate potentially adverse impacts.

Basis for Decision:

This Record of Decision has been prepared pursuant to the Council on Environmental Quality "Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA)" [40 CFR 1500], and the DOE NEPA Guidelines" [52 FR 47662, December 15, 1987].

The Texas site was selected as the preferred alternative for location of the SSC in November 1988 and was identified as such in the final EIS Superconducting Super Collider, December 1988 [DOE EIS-0138]. In addition to the information considered in selecting the preferred alternative, DOE has considered the final EIS and issues raised in comments on the final EIS, and has determined that the Texas proposal remains superior from an overall standpoint.

The Texas site provides the opportunity to construct the collider tunnel in a uniform, well-characterized geologic medium. The chalk and marl in which the tunnel will be constructed are essentially impermeable. The average tunnel depth is relatively shallow, about 150 feet. The site presents minimal construction risk.

Ample regional resources exist at the Texas site to support the SSC. The local communities can provide extensive housing, services, and employment opportunities for workers' families. The site is easily accessible. There is a skilled high-technology and construction labor pool in the area. Coordination between state and local governmental units is effective. A high level of public support for the project is present.

Environmental regulatory requirements can be met. The potential for adverse environmental impacts at the Texas site is small, and there is a substantial potential to mitigate any of the few potentially long- and short-term adverse impacts. The potential disturbance to a small area of wetlands could be feasibly mitigated. About 30 miles of new roads, 25 miles of road upgrades, and 5 miles of new powerlines would be required at the Texas site, but the site provides enough flexibility for locating these facilities that long-term adverse impacts are not expected.

The regional conditions at the Texas location would not pose adverse effects on the construction or operation of the SSC. The climate is favorable for construction schedules, and underground vibrations from nearby activities would not pose a problem. The Texas site could adequately support the SSC needs for electricity and water.

There are no scheduling problems anticipated from land acquisition at the Texas site. An estimated 420 ownerships would be affected, which would result in about 175 relocations.

The life-cycle cost estimate for the Texas site is expected to be approximately \$10.8 billion, which was among the lowest at the seven alternative sites. Although there are inherent uncertainties in predicting costs for this project at any site over the 25-year operating period, possibly in the range of 10 percent, the projected life-cycle cost for the Texas site is consistent with the DOE construction estimate for the SSC. As explained in the final EIS, neither the no action alternative nor the programmatic alternatives would accomplish the mission of the SSC. Most technical alternatives were determined to be not feasible; technical alternatives that were feasible were not expected to have environmental consequences which would be significantly different from those associated with the conceptual design for the SSC.

Background:

The purpose of the SSC and its associated national laboratory facility will be to investigate the structure of matter at a more fundamental level than is presently possible. This will provide the capability for the U.S. to maintain world leadership in high energy physics.

The SSC will be the largest scientific instrument ever built. The major feature of the facility will be an oval tunnel about 53 miles in circumference. The tunnel will contain approximately 10,000 superconducting magnets which will focus and guide two beams of protons (subatomic particles). The beams will be accelerated in opposite directions to velocities near the speed of light, and then made to collide at energies of up

to 40 trillion electron volts. The collisions are expected to create smaller subatomic particles which will be analyzed to determine their character.

Construction of the SSC is anticipated to be completed during the late 1990's. The SSC is expected to remain in operation for 25 to 30 years after construction. After completion of its useful life it will be decommissioned. Additional NEPA review will be completed prior to a decision to either: (1) expand SSC facilities into future use areas; or (2) decommission the facility. Research and development for the SSC project has been conducted as a national scientific effort. In 1986, the Central Design Group of Universities Research Association, Inc., prepared a "Conceptual Design Report which concluded that the SSC was technically feasible and that cost and schedule estimates were acceptable. In January 1987, the President proposed construction of the SSC to Congress. DOE established a Site Task Force (STF) in February 1987 to oversee many of the site selection functions and evaluate proposed sites for the SSC.

In April 1987 DOE issued an Invitation for Site Proposals (ISP) for the SSC. The ISP included the procedures for selection, qualification criteria, technical evaluation criteria, and cost considerations. Using an evaluation process which included recommendations from the National Academy of Sciences and the National Academy of Engineering, seven best qualified site proposals were announced by DOE in January 1988. These seven best-qualified site proposals, analyzed in the EIS as the seven reasonable siting alternatives, are located in Arizona, Colorado, Illinois, Michigan, North Carolina, Tennessee, and Texas.

DOE issued an Advance Notice of Intent to prepare the SSC EIS [52 FR 16304, May 4, 1987], followed by a Notice of Intent [53 FR 1821, January 22, 1988]. Scoping meetings were held near each of the seven sites. DOE issued the draft EIS in August 1988. The Environmental Protection Agency (EPA) Notice of Availability [53 FR 34148, September 2, 1988] announced a 45-day public review and comment period on the draft EIS. During that time, public hearings were held near each of the seven sites. DOE received oral and written comments from approximately 5,700 commenters.

On November 10, 1988, the Secretary of Energy selected the Texas proposal as the preferred alternative for the location of the SSC. Selection of the preferred alternative considered the findings presented in "SSC Site Evaluations, A Report by the SSC Site Task Force," November 1988 [DOE/ER-0392], and the analysis of the sites in the draft EIS. The Secretary of Energy also considered input from meetings with the seven state proposers and the DOE Energy Systems Acquisition Advisory Board, in addition to issues raised in comments submitted by the public and government agencies on the draft EIS.

DOE issued the final EIS in December 1988. The EPA Notice of Availability for the final EIS was published on December 16, 1988 [53 FR 50568].

Alternatives Considered:

Four different types of alternatives were considered by DOE for this project and evaluated in the EIS. These were: (1) technical alternatives; (2) programmatic alternatives; (3) the no action alternative; and (4) site alternatives.

Technical Alternatives: DOE considered using different beam composition, energy, and luminosity. DOE also considered using conventional magnets, warm superconducting magnets, and alternative superconducting magnets. DOE is still considering the potential for feasible alternatives to the design of detectors and experimental areas, and injector configurations. Feasible alternatives developed will be identified in the Supplemental EIS.

Programmatic Alternatives: DOE considered using other accelerators, international collaboration for the SSC, and delay of constructing the project.

No Action Alternative: DOE considered the consequences of a decision not to site, construct, and operate the SSC.

Site Alternatives: The seven best qualified sites identified by DOE in January 1988 were analyzed as the only reasonable siting alternatives. The alternative sites are located in Arizona, Colorado, Illinois, Michigan, North Carolina, Tennessee, and Texas.

Environmentally Preferable Alternatives:

Two of the alternatives assessed in the EIS are believed to be environmentally preferable: (1) the no action alternative; and (2) the Texas site alternative.

The no action alternative would result in the least amount of surface and subsurface environmental effects of any alternative considered in the EIS. However, the no action alternative is rejected by DOE because it would jeopardize the future of the U.S. high energy physics program. The operation of the SSC is a vital component of future U.S. basic research efforts in high energy physics. The lack of this instrument would erode U.S. world leadership in this field.

Of the siting alternatives, the Texas site alternative is felt to be environmentally preferable. The final EIS indicates that the adverse ecological impacts would be less at the Texas site compared to the other six site alternatives. The selected Texas site has already been highly modified through the extensive development of land for pasture and farming, and has a high potential for mitigation of adverse impacts.

Mitigation:

DOE has considered all practicable means to avoid or minimize environmental harm from construction and operation of the SSC at the Texas site. As shown in the final EIS, construction and operation of the SSC at this site would result in the least amount of significant adverse environmental impacts which could not be mitigated. Residual adverse impacts include: use of a small fraction of the excess surface water capacity; disturbance of about 3 acres of wetlands; relocation of about 175 parties; and impacts from construction of about 30 miles of new roads, 25 miles of road upgrades, and 5 miles of new powerlines. It may be possible to further mitigate these residual impacts through modifications to the final site design. Design mitigation measures will be identified and analyzed in the Supplemental EIS. Beneficial impacts, besides the knowledge to be gained from operation of the SSC, include increased job opportunities during both construction and operation of the SSC, and secondary socioeconomic benefits to local businesses and the community.

DOE is committed to implement mitigation measures required by DOE policy, law, or regulation, as identified in the final EIS. In addition, DOE will determine through the Supplemental EIS the potential for three additional types of mitigation: (1) design-controlled elements (those included in the conceptual design for the SSC and/or included in the Texas proposal); (2) flexibility in placement of the collider ring and other surface facilities; and (3) the possibility for development of additional mitigation measures to further reduce residual impacts identified in the SSC EIS. The Supplemental EIS will identify measures to mitigate site-specific adverse impacts, such as for fire ant control.

Floodplain/Wetlands Statement of Findings:

Pursuant to Executive Order 11988, "Floodplain Management," Executive Order 11990, "Protection of Wetlands," and 10 CFR 1022, "Compliance With Floodplain/Wetlands Environmental Review Requirements," DOE has incorporated a floodplain/wetlands assessment within the final EIS (Volume I, Chapter 5; and Volume IV, Appendixes 7 and 11). The final EIS contains: (1) a complete description of the proposed action at the Texas site, including maps of floodplain and wetland areas; (2) assessment of the positive and negative environmental effects of the proposed action upon floodplain and wetland areas; and (3) a discussion of possible alternatives which would lessen or avoid adverse impacts to floodplains and wetlands.

Floodplains: Ellis County, Texas, is included in the national floodplain mapping program of the Federal Emergency Management Agency. Using the SSC conceptual design, certain of the project facilities (about 10 acres total) and some projected future use areas (about 70 acres total) would fall within the 100-year floodplain boundary of South Prong Creek, Chambers Creek, Baker Branch, Mill Branch, and an unnamed tributary to Chambers Creek. Access roads would cross the stream channels of Red Oak Creek and Big Onion Creek.

DOE has considered alternative means to mitigate adverse impacts to floodplains. In addition to not constructing the SSC at the Texas site, the final EIS considers the flexibility of relocating either the collider tunnel or related surface facilities to avoid encroachment upon floodplains; construction of berms, levees or other structures; channel diversion; and construction of bridges or culverts for access roads.

Construction of the SSC at the Texas site would not conflict with state or local floodplain protection standards.

Wetlands: DOE has determined that it is probable that construction of the SSC at the Texas site will encroach upon a small amount of wetland areas. The wetlands affected include both natural areas and constructed stock ponds. About 3 acres of wetlands would be disturbed if the facility is constructed according to the conceptual design. These areas have been previously degraded from a natural condition by grazing and soil erosion. In addition, up to about 37 acres of wetlands could be affected by construction at identified future expansion areas.

Operation of the SSC should not impact existing wetlands, but could add additional wetland areas due to construction of a 400-acre evaporation pond. DOE has considered alternative means to mitigate adverse impacts to wetlands. In addition to the

option not to construct the SSC at the Texas site, the final EIS addresses the potential for relocating surface facilities to avoid wetland areas; using bridges for access roads; constructing erosion control measures; using responsible construction practices; and replacing lost wetlands.

Supplemental Assessment: The Texas site offers great potential for flexibility in adjusting both the overall layout of the collider ring and location of surface facilities along the ring. Site-specific impacts to floodplain and wetland areas potentially affected by the SSC will be assessed in the Supplemental EIS after initial site layout and facility design are determined. DOE will modify the final design of the facility to avoid floodplain and wetland areas to the extent practicable.

Construction of ancillary facilities, such as access roads and utility lines, and disposal of tunnel spoils, could disturb small areas of floodplains or wetlands. Because the exact location of these activities has not yet been determined, site-specific impacts and mitigation required will be assessed in the Supplemental EIS. At the Texas site about 550 acres will be disturbed by constructing ancillary facilities. DOE anticipates that access roads and utility lines can be located to avoid wetlands and to minimize encroachment upon floodplains. Spoils disposal will be in existing quarries and is not expected to affect either floodplains or wetlands

The final EIS indicated the potential for adverse impacts to floodplains or wetlands if construction occurs in the future development areas. DOE will prepare additional NEPA documents if specific uses are proposed for these areas. Site-specific impacts, and potential mitigation for adverse effects, would be determined at that time.

Conclusion:

Based on careful consideration of the environmental impacts associated with the proposed action and alternatives as analyzed in the SSC EIS, comments received on the EIS, and the anticipated benefits and costs associated with the proposed action and its various alternatives, the DOE has decided to proceed with the SSC at the site proposed by the State of Texas.

Issued at Washington, DC on January 8, 1989.

John S. Herrington
Secretary of Energy