written comments concerning (1) the scope of the EIS, (2) the issues the EIS should address, and (3) the alternatives the EIS should analyze. Please address written comments to Mr. Grainger at the address indicated above. These comments should be postmarked by November 1, 1996 to ensure full consideration.

Organizations and individuals wishing to participate in the public meeting can call 1–800–242–8269 between 8:30 AM and 5:00 PM Eastern Time, Monday through Friday, or submit their requests to Mr. Grainger at the address indicated above. DOE requests that anyone who wishes to speak at the scoping meeting preregister by contacting Mr. Grainger, either by phone or in writing. Preregistration should occur at least two days before the designated meeting. Persons who have not preregistered to speak may register at the meeting and will be called on to speak at time permits.

Related Documentation: Completed and ongoing environmental reviews both may affect the scope of this EIS. Background information is listed below on past, present, and future activities at the Savannah River Site.

Final Interim Management of Nuclear Materials Environmental Impact Statement, DOE/EIS–0220, 1995. This EIS contains information on DOE waste management activities which could be affected by APT waste streams.

Final Savannah River Site Waste Management, DOE/EIS–0217, 1995. This EIS contains information on SRS waste management activities which could be affected by APT waste streams.

Final Programmatic Environmental Impact Statement for Tritium Supply and Recycling, DOE/DOE–0161, 1995. This PEIS presents a programmatic environmental analysis of various ways to produce tritium, including commercial light water reactors, and the APT technology, including the location of an accelerator at SRS, if DOE decides to proceed with the APT.

DRAFT Programmatic Environmental Impact Statement for Stockpile Stewardship and Management, DOE/EIS–0236, February, 1996. The cumulative analysis of the PEIS includes the impacts at the Savannah River Site from the Tritium Supply and Recycling Programmatic EIS for the construction of an accelerator, an upgraded tritium recycling facility, and an extraction facility.

Environmental Assessment for the Natural Fluctuation of Water Level in PAR Pond and Reduced Water Flow In Steel Creek and Lake I. Lake at the Savannah River Site, DOE/EA–1070, 1995. This EA contains information on PAR Pond, which could receive cooling water blowdown from some of the cooling options examined for the APT.


Environmental Impact Statement for the Construction and Operation of a Tritium Extraction Facility at the Savannah River Site, (see notice in today’s Federal Register).

Environmental Assessment for the Tritium Facility Modernization and Consolidation, (anticipated). The environmental assessment is to include the impacts of modernizing and consolidating the existing tritium recycling facilities at the Savannah River Site.

This information is available in the following two DOE public reading rooms: DOE Freedom of Information Reading Room, Room 1E–190, Forrestal Building, 1000 Independence Avenue, S.W., Washington, D.C. 20585, phone 202–586–6020; and DOE Public Document Room, University of South Carolina, Aiken Campus, University Library, 2nd Floor, 171 University Parkway, Aiken, SC 29801, phone 803–648–6851.

Issued in Washington, D.C., this 29th day of August, 1996.

Peter N. Brush, Principal Deputy Assistant Secretary, Environment, Safety, and Health.


Supplementary Information: The SRS is an 800 square kilometer (300 square mile) controlled access area located in

nuclear weapons stockpile of the United States. One of the strategy tracks is the Commercial Light Water Reactor (CLWR) alternative, and the other is an accelerator system for tritium production. The primary tritium source will be selected within three years of the ROD issuance. The TEF would be built at SRS, and would be capable of extracting tritium both from CLWR targets and from an alternate design for accelerator targets. (The primary accelerator design would use a different technology to extract tritium.) This site-specific EIS would analyze the environmental impacts of construction and operation of the proposed TEF.

DOE has also decided to prepare an EIS for Accelerator Production of Tritium (APT) at the SRS. That EIS will be the subject of a separate Notice of Intent (NOI), but will have scoping meetings concurrent with the TEF process.

DATES: The public scoping period will be open until November 1, 1996. Written comments submitted by mail should be postmarked by that date to ensure consideration. DOE will consider comments mailed after that date to the extent practicable. DOE will conduct public scoping meetings to assist in defining the appropriate scope of the EIS and identifying significant environmental issues to be addressed. Meetings for the TEF EIS and the APT EIS will be held concurrently, with separate workshops possible depending upon attendance levels. Notices of the dates, times, and locations of the scoping meetings will be announced in the local media at least 15 days before the meetings.

ADDRESSES: Please direct written comments or suggestions on the scope of the EIS, requests to speak at the public scoping meetings, and questions concerning the project to: Mr. Andrew R. Grainger, U.S. Department of Energy, Savannah River Operations Office, P.O. Box 5031, Aiken, S.C. 29804–5031, 1–800–242–8269, E-mail: nepa@barms036.b-r.com. Mark the envelopes: “Tritium Extraction Facility EIS Comments”


SUMMARY: The Department of Energy (DOE) announces its intent to prepare an Environmental Impact Statement (EIS) for construction and operation of a Tritium Extraction Facility (TEF) pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended (42 USC 4321 et seq.). In the Record of Decision (ROD) for the Tritium Supply and Recycling Final Programmatic Environmental Impact Statement issued December 5, 1995, and published in the Federal Register on December 12, 1995 (60 FR 63878), DOE decided to construct and operate a Tritium Extraction Facility (TEF) at the Savannah River Site (SRS) as part of a dual track strategy to ensure a supply of tritium to support the continuing
The Site is approximately 25 miles southeast of Augusta, Georgia, and 20 miles south of Aiken, South Carolina. Since its establishment, the mission of the SRS has been to produce nuclear materials that support the defense, research, and medical programs of the United States. With the end of the Cold War and the reduction in the size of the U.S. nuclear weapons stockpile, there is no longer a requirement to produce new nuclear materials for defense purposes, with the exception of tritium. As a result, activities at SRS have shifted from nuclear material production to cleanup and environmental restoration. All production reactors are permanently shut down. However, a new source of tritium is needed to support the nuclear weapons stockpile well into the twenty-first century. Tritium has a relatively short half life (12.3 years) and therefore must be periodically replenished in each weapon in the stockpile.

The Department evaluated the programmatic alternatives for a new tritium source in a Programmatic Environmental Impact Statement (PEIS) for Tritium Supply and Recycling (DOE/EIS–0161, October 1995). Based on the findings in the PEIS and other technical, cost, and schedule evaluations, the Department issued a Record of Decision (ROD) on December 5, 1995 (60 FR 63877, December 12, 1995). In the ROD, the Department decided to pursue a dual-track approach on the two most promising tritium supply alternatives: (1) To initiate purchase of an existing commercial reactor (operating or partially complete) for conversion to a defense facility, or purchase of irradiation services with an option to purchase the reactor; and (2) to design, build, and test critical components of an accelerator system for tritium production. Within a three-year period, the Department would select one of these approaches to serve as the primary source of tritium. The other alternative, if feasible, would continue to be developed as a backup tritium source. SRS was selected as the location for an accelerator, should one be built. Under the ROD, the tritium recycling facilities at SRS would be upgraded and consolidated and a tritium extraction facility would be constructed at SRS to support both of the dual-track options.

The Department's strategy for compliance with NEPA has been, first, to make decisions on programmatic alternatives as described and evaluated in the Tritium Supply and Recycling PEIS. This evaluation was intended to be followed by specific analyses to implement the selected programmatic decisions. The decisions made in the December 5, 1995 ROD have resulted in the Department proposing to prepare the following NEPA documents:

1. An EIS for the Selection of One or More Commercial Light Water Reactors for Tritium Production;
2. An EIS for the Construction and Operation of an Accelerator for the Production of Tritium at the Savannah River Site;
3. An Environmental Assessment for the Tritium Facility Modernization and Consolidation at the Savannah River Site; and
4. An EIS for the Construction and Operation of a Tritium Extraction Facility at the Savannah River Site.

The EIS proposed by this Notice of Intent is the fourth of the proposed NEPA documents listed above.

Proposed Action: The Department proposes to construct and operate a Tritium Extraction Facility (TEF) at the SRS. The overall mission of the TEF would be to extract tritium gas from targets irradiated in a CLWR or an accelerator, and deliver weapons-quality Tritium to the Tritium Loading Facility, also known as the Replacement Tritium Facility, Building 233–H, at the SRS. The TEF would also be capable of extracting tritium from the accelerator alternate target design (lihium-6 aluminum alloy), if required. The primary design for the accelerator calls for use of helium-3 gas as a target material and for continuous removal of tritium in a tritium separation facility co-located with the accelerator. The proposed action includes co-location of the TEF with Building 233–H, and the design of the TEF for an operating life of about 40 years. Under the proposed action, the TEF would share common plant support facilities with Building 233–H. Construction of the TEF would require 4 to 5 years. The TEF would be a hardened concrete industrial structure, partially below ground.

Alternatives to the Proposed Action: DOE has identified two preliminary alternatives to the proposed action. Comments on these alternatives, or identification and comment on other reasonable alternatives, are welcome. The No Action alternative is not to build the proposed Tritium Extraction Facility. Under this alternative, the facility would not be constructed. At the SRS, tritium can be extracted from heavy water reactor targets in the Tritium Extraction, Concentration and Enrichment Facility (Building 232–H), but there are no facilities in operation to fabricate or irradiate heavy water reactor targets. Currently, the Tritium Extraction, Concentration and Enrichment Facility cannot extract tritium safely from light water reactor targets or the accelerator alternate targets (lithium-6 aluminum alloy) without process modifications, in sufficient quantities to meet stockpile demands. Therefore, under this alternative, the stockpile demands for tritium could not be met if the existing commercial reactor option is selected for tritium production, or if the alternative target is used in the accelerator.

The second alternative is to make substantial modifications to Building 232–H, the Tritium Extraction, Concentration and Enrichment Facility. This facility is currently in use for tritium extraction but would require modification to attain safety and environmental performance requirements for tritium extraction from light water irradiated targets. Under this alternative, this existing facility would be modified to receive and handle remotely the light water reactor or accelerator-irradiated targets; no new building would be constructed. Additionally, a new furnace would be needed to achieve the required extraction temperatures and comply with current environmental requirements.

Identification of Environmental and Other Issues: The Department has identified the following issues for analysis for proposed and alternative actions in the EIS. Additional issues may be identified as a result of the scoping process.

1. Public and Worker Safety, Health Risk Assessment: radiological and nonradiological impacts of the proposed action and alternatives, including projected effects on workers and the public from construction, normal operations, and accidents.
2. Impacts from releases to air, water, and soil.
3. Impacts to plants, animals, and habitat, including impacts to wetlands and threatened or endangered species and their habitat.
4. The consumption of natural resources and energy including water, natural gas, and electricity.
5. Socioeconomic impacts to affected communities from construction and operation labor forces and support services in the SRS area.
6. Environmental justice: disproportionately high and adverse human health or environmental effects on minority and low-income populations.
7. Impacts to resources such as historically, archaeologically, scientifically, or culturally important sites.
8. Compliance with all applicable Federal, state, and local statutes and regulations; required Federal and state
environmental consultations and notifications; and DOE Orders on waste management, waste minimization initiatives, and environmental protection.

9. Cumulative impacts from the proposed action and other past, present, and reasonably foreseeable actions at SRS.

10. Potential irreversible and irretrievable commitments of resources.

Public Scoping Process: DOE will conduct public scoping meetings to assist in defining the appropriate scope of the EIS and to identify significant environmental issues to be addressed. Because another EIS for a separate tritium-related activity at SRS is commencing simultaneously (the APT; see the notice in today's Federal Register), the public scoping meetings for the TEF will be held concurrently with the public scoping meetings for the APT EIS. DOE will begin each scoping meeting with an overview of tritium activities at SRS. Following the initial presentation, DOE will hold workshops on the APT and the TEF. These will either be separate workshops or a combined workshop depending on attendance levels. There will be two sessions at each meeting location. Copies of handouts from the meetings will be available to those unable to attend by writing Mr. Grainger at the address above, or by calling 1-800-242-8269.

Public notices of the dates, times, and locations of the scoping meetings will be announced in the local media at least 15 days before the meetings. DOE is committed to providing opportunities for the involvement of interested individuals and groups in this and other DOE planning activities.

The public, organizations, and agencies are invited to present oral and written comments concerning (1) the scope and issues of the EIS, and (2) the alternatives the EIS should analyze. Please address written comments to Mr. Grainger at the address indicated above.

Organizations and individuals wishing to participate in the public meeting can call 1-800-242-8269 between 8:30 AM and 5:00 PM, Eastern Standard Time, Monday through Friday, or submit their requests to Mr. Grainger at the address indicated above. DOE requests that anyone who wishes to speak at the scoping meeting preregister by contacting Mr. Grainger, either by phone or in writing. Preregistration should occur at least two days before the designated meeting. Persons who have not preregistered to speak may register at the meeting and will be called on to speak as time permits.

Related Documentation: Completed and ongoing environmental reviews and public comments and concerns may affect the scope of this EIS. Background information is listed below on past, present, and future activities at the SRS.

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Draft Programmatic Environmental Impact Statement for Stockpile Stewardship and Management, DOE/EIS-0236, February, 1996. The cumulative analysis of this PEIS includes the impacts at the Savannah River Site from the Tritium Supply and Recycling Programmatic EIS for the construction of an accelerator, an upgraded tritium recycling facility, and an extraction facility.

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