

**DEPARTMENT OF ENERGY****Record of Decision: Tritium Supply and Recycling Programmatic Environmental Impact Statement**

**AGENCY:** Department of Energy.

**ACTION:** Record of Decision: Selection of Tritium Supply Technology and Siting of Tritium Supply and Recycling Facilities.

**SUMMARY:** The Department of Energy (DOE) is issuing this Record of Decision regarding DOE's proposal for Tritium Supply and Recycling Facilities. The Department is making three simultaneous decisions. First, the Department will pursue a dual track on the two most promising tritium supply alternatives: to initiate purchase of an existing commercial reactor (operating or partially complete) or irradiation services with an option to purchase the reactor for conversion to a defense facility; and 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 the tracks to serve as the primary source of tritium. The other alternative, if feasible, would be developed as a back-up tritium source. Second, the Savannah River Site is selected as the location for an accelerator, should one be built. Third, the tritium recycling facilities at the Savannah River Site will be upgraded and consolidated to support both of the dual track options. If the commercial reactor alternative is selected as the primary source, a tritium extraction facility will also be constructed at the Savannah River Site. The environmental analysis to support this decision was issued by the Department in the Final Programmatic Environmental Impact Statement for Tritium Supply and Recycling (PEIS) DOE/EIS-0161 (October 1995). The PEIS identified the dual-track strategy described above as the preferred technology alternative. The Savannah River Site was identified as the preferred site for an accelerator, and the site for the upgrade and consolidation of existing recycling facilities. The Department has decided to implement the preferred alternatives.

**FOR FURTHER INFORMATION CONTACT:** Further information on the Final Programmatic Environmental Impact Statement can be obtained by calling 800-776-2765, or writing to: Stephen M. Sohinki, Director, Office of Reconfiguration, DP-25, U.S. Department of Energy, P.O. Box 3417, Alexandria, VA 22302.

Information on the Department of Energy National Environmental Policy

Act process can be obtained by contacting: Carol M. Borgstrom, Director, Office of NEPA Policy and Assistance, EH-42, U.S. Department of Energy, 1000 Independence Ave. SW., Washington DC 20585, Telephone: (202) 586-4600 or (800) 472-2756.

**SUPPLEMENTARY INFORMATION:** The Department of Energy has prepared this Record of Decision pursuant to the Council on Environmental Quality (CEQ) Regulations for implementing the procedural provisions of the National Environmental Policy Act (NEPA) (40 CFR Parts 1500-1508) and the Department of Energy regulations implementing the National Environmental Policy Act (10 CFR Part 1021). This Record of Decision is based on the Final Programmatic Environmental Impact Statement for Tritium Supply and Recycling (DOE/EIS-0161, October 1995) and the Technical Reference Report for Tritium Supply and Recycling (DOE/DP-0134, October 1995). The Technical Reference Report summarizes schedule, production assurance and cost data and presents the results of the uncertainty analysis. Several comments and a report from Congress were received after the documents listed above were published. This additional information was taken into consideration in preparing this Record of Decision.

In January 1991, the Department announced it would prepare a Programmatic Environmental Impact Statement (PEIS) examining alternatives for the reconfiguration of the Department's nuclear weapons complex. The framework for the Reconfiguration PEIS was described in the Nuclear Weapons Complex Reconfiguration Study (DOE/DP-0083), issued in January 1991. A Notice of Intent to prepare the PEIS was published in the Federal Register on February 11, 1991 (56 FR 5590). The purpose of the PEIS was to establish the locations for future weapons complex missions. The missions to be analyzed included plutonium and uranium component fabrication and processing, weapons assembly and disassembly, high explosive production, tritium recycling, and nonnuclear component fabrication.

At the time the Reconfiguration PEIS was begun, technology and siting alternatives for a new tritium supply facility were being examined in a separate New Production Reactor Capacity Environmental Impact Statement. On September 27, 1991, President Bush announced an initiative to reduce the Nation's nuclear weapons stockpile. In response to this initiative, the need for new facilities was delayed

and the Department announced, on November 1, 1991, that it would delay decisions on the new production reactor technology and siting and include the environmental analysis for a new tritium production source in the Reconfiguration PEIS. The Department's intent to incorporate the New Production Reactor capacity analysis into the Reconfiguration PEIS was published in the Federal Register on November 29, 1991 (56 FR 60985).

In June 1992, the United States and Russia announced an arms reduction agreement which was signed in January 1993 as the START II Protocol. This agreement caused the most significant reductions to date in planned future weapons stockpiles of both nations. It also provided the Department with the opportunity to consider a much smaller weapons complex than previously envisioned. Therefore, the Department determined that it was necessary to reevaluate the Reconfiguration Program to insure that alternatives which reflected requirements of a greatly downsized nuclear weapons stockpile would be assessed in the PEIS. On July 23, 1993, a revised Notice of Intent was published in the Federal Register (58 FR 39528) which described a smaller, more integrated nuclear weapons complex. Additionally, long-term storage alternatives for plutonium and uranium were added to the analysis. As a result of this reevaluation and public comment, the Department published a notice in the October 28, 1994, Federal Register (59 FR 54175), that would separate the Reconfiguration PEIS into two separate analyses: the Tritium Supply and Recycling PEIS and Stockpile Stewardship and Management PEIS.

On March 1, 1995 the Department issued a Draft Programmatic Environmental Impact Statement for Tritium Supply and Recycling (DOE/EIS-0161) which presented an analysis of the environmental impacts of the proposed action and alternatives. In the Draft PEIS, the Department indicated that the use of a commercial reactor was not a reasonable long-term tritium supply alternative due to concerns about the use of civilian reactors for military purposes. However, the Draft PEIS evaluated the impacts associated with the use of a commercial reactor to make tritium, whether such a reactor were used as a contingency source of tritium in the event of a national emergency, or the Department chose to purchase an existing reactor and convert it to a defense facility for long-term tritium supply. Comments received during the agency and public review of the Draft PEIS asserted that the use of