



Environmental Bulletin

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from the Savannah River Site

Melt and Dilute is the chosen technology

DOE makes final decision on how to manage spent nuclear fuel at the Savannah River Site

The Savannah River Site Spent Nuclear Fuel Management Environmental Impact Statement (SRS SNF Management EIS, DOE/EIS-0279, March 2000) considered alternative ways of managing spent nuclear fuel (SNF) at DOE's Savannah River Site in Aiken, South Carolina. Based on that analysis, DOE has decided to implement the Preferred Alternative identified in the EIS. In the chosen alternative, DOE will develop and demonstrate the Melt and Dilute technology to manage about 97 percent by volume and 60 percent by mass of the aluminum-based SNF considered in the EIS (48 metric tons of heavy metal (MTHM) aluminum-based SNF). Following successful development and demonstration of the technology (including characterization and qualification of the Melt and Dilute product to meet anticipated repository acceptance criteria), DOE will begin detailed design, construction, testing, and startup of a Treatment and Storage Facility (TSF).

The SNF will remain in existing wet storage until treated and placed in dry storage in the TSF. The TSF will combine the

transfer and treatment (Melt and Dilute) functions, to be constructed in the existing 105-L building, with a new dry storage facility to be constructed in L Area near the 105-L building. DOE also has decided to use Conventional Processing (i.e., the existing canyons) to stabilize about 3 percent by volume and 40 percent by mass of the aluminum-based SNF. If the TSF becomes available before these materials have been stabilized, DOE may choose to use the Melt and Dilute technology rather than the Conventional Processing technology for their stabilization.

DOE has also decided to continue to store small quantities of higher actinide materials until DOE determines their final disposition. In addition, DOE will ship approximately 20 MTHM of non-aluminum-based SNF from the SRS to the Idaho National Engineering and Environmental Laboratory (INEEL). If DOE identifies any imminent health and safety concerns involving any aluminum-based SNF before the TSF becomes available, DOE will use Conventional Processing to stabilize the material of concern.

Copies of the Final SRS SNF EIS Available

ADDRESSES: Copies of the SRS SNF Management EIS and this Record of Decision may be obtained by calling a toll free number (1-800-881-7292), sending an e-mail request to "nepa@srs.gov," or by mailing a request to: Andrew Grainger, National Environmental Policy Act (NEPA) Compliance Officer, Savannah River Operations Office, Department of Energy, Building 742A, Room 185, Aiken, South Carolina 29808.

The final SRS SNF Management EIS (including the 33-page Summary) and this Record of Decision are available on the Office of Environmental Management's web site, <http://www.em.doe.gov>, and on DOE's NEPA web site, <http://tis.eh.doe.gov/nepa/>.

FOR FURTHER INFORMATION CONTACT: Questions concerning the SRS SNF management program can be submitted by calling 1-800-881-7292, mailing them to Mr. Andrew Grainger at the above address, or sending them electronically to the Savannah River Operations e-mail address, "nepa@srs.gov."

For general information on the DOE NEPA process, please contact: Ms. Carol M. Borgstrom, Director, Office of NEPA Policy and Compliance, U.S. Department of Energy, 1000 Independence Avenue, S.W., Washington, DC 20585, 202-586-4600 or leave a message at 1-800-472-2756.

DOE issues ESD

No Action remedy now planned for Burma Road Rubble Pit

An Explanation of Significant Differences (ESD) is being issued by the Department of Energy (DOE), the lead agency for the Savannah River Site, with concurrence by the United States Environmental Protection Agency-Region IV (USEPA) and South Carolina Department of Health and Environmental Control (SCDHEC) to announce changes in the remedial decision selected for the Burma Road Rubble Pit (BRRP) waste unit. The waste unit is located northwest of the center of the Savannah River Site (SRS), in Aiken, South Carolina.

The remedy selected in the BRRP Record of Decision (ROD) is No Action because the unit poses no significant risks to human health or the environment. However, the ROD declaration also stated that SRS would place a notation on the deed in the county records stating that inert debris was buried at the BRRP and that SRS will file a certified survey plat of the BRRP with the notification. These two items are institutional-like controls. This ESD provides the rationale for changing the remedy to a pure No Action remedy and eliminating the deed notification and survey plat. This modification will have no adverse impact on human health or the environment, provide a minor cost savings, eliminate a contradiction within the BRRP ROD and align the BRRP no action remedial decision with all other SRS No Action remedy RODs.

SRS is required by the Comprehensive Environmental Recovery Compensation and Liability Act (CERCLA) to publish an ESD whenever there is a significant change to a component of the remedy identified in the ROD. The National Oil and Hazardous Substances Pollution Contingency Plan requires the lead agency to provide an explanation of the differences and to make the information available to the public

in the Administrative Record and information repository. This ESD is available for public review during normal business hours at the following information repositories:

- DOE Public Reading Room at the Gregg-Graniteville Library at the University of South Carolina-Aiken campus in Aiken, SC; and
- Thomas Cooper Library Government Documents Department at the University of South Carolina in Columbia, SC.

Hard copies of the Record of Decision are available at the following:

- Reese Library at Augusta State University in Augusta, GA; and
- Asa H. Gordon Library at Savannah State University in Savannah, GA.

The Record of Decision is also available on the Internet in the SRS Home Page (<http://www.srs.gov>), under "Happening Now," (<http://www.srs.gov/general/srs-home.htm>), and on the SRS Environmental Restoration Home Page, under "Public Involvement," (<http://www.srs.gov/general/srenviro/erd/pub/pubinv.html>). Any comments or questions may be directed to:

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SRS CAB adopts three recommendations at July meeting

The SRS CAB approved the formation of a Consolidated Incineration Facility (CIF) Focus Group to stay informed of the future status and operations of CIF and the review of alternative waste treatment processes, and to offer meaningful input in the identification of alternatives.

Recommendation 126

Path Forward for Consolidated Incineration Facility

The Board recommended that DOE reverse its decision to suspend CIF operations. It also requested that DOE re-institute the necessary funds to continue operation of CIF until it can fully justify its decision, and until such time that an alternative treatment option is available, cost effective and can be implemented.

Recommendation 127

DOE Rev. 3 Implementation Plan for DNFSB

Recommendation 94-1/2000-1

The Board recommended that DOE take all necessary steps to assure that a Tennessee Valley Authority agreement to take SRS blended down uranium is completed by August 31.

Recommendation 126

DNFSB Response to IP-3

A recommendation that DOE go to Congress and the President to request additional funding as recommended by DNFSB in its response to the DOE Implementation Plan for DNFSB Recommendation 94-1/2000-1 was adopted by the Board.

Current NEPA actions affecting SRS

• **Construction and Operation of the Highly Enriched Uranium Blend-Down Facilities at the Savannah River Site (DOE/EA-1322)**, The EA will analyze the potential environmental consequences associated with construction and operation of a low enriched uranium (LEU) loading station and modifications to existing facilities at SRS. The proposed action would support delivery of LEU (converted from off-specification highly enriched uranium) to the Tennessee Valley Authority. The Finding of No Significant Impact (FONSI) is expected in August 2000.

• **Offsite Transportation of Certain Low-Level and Mixed Radioactive Waste from SRS for Treatment and Disposal at Commercial and Government Facilities (DOE/EA-1308)**, The EA will analyze the potential environmental consequences associated with transporting low-level and mixed low-level waste to offsite commercial and government facilities for treatment and/or final disposal. These facilities are variously located in the Idaho, Nevada, Tennessee, Texas, Utah, and Washington. The draft EA is expected in August 2000.

• **Evaluate an Alternative Approach for the Defense Waste Processing Facility (DWPF) Glass Waste Canister Storage Facility at SRS (DOE/EA-1327)**, The EA analyzed potential environmental consequences associated with building and operating an onsite above-ground con-

crete pad for casks containing DWPF canisters. The storage casks would be made using SRS's inventory of depleted uranium trioxide powder. The EA was completed in March, however, the contracting strategy is now being re-evaluated. When the proposed action is reformulated, the EA will be revised accordingly. The schedule is uncertain.

• **SRS High Level Waste Tank Closure (DOE/EIS-0303)**, The proposed action is to close the SRS HLW Tanks in accordance with applicable laws, regulations, DOE Orders and SCDHEC permit requirements. The draft EIS is expected in the fourth quarter 2000.

• **SRS Spent Nuclear Fuel Management (DOE/EIS-0279)**, This EIS evaluated the management strategies using existing, modified and new facilities or processes for spent nuclear fuel assigned to SRS. In the Record of Decision issued on July 24, DOE chose to treat the majority of the SNF at SRS with melt and dilute technology. (See article on Page 1.)

• **SRS Salt Disposition Alternative SEIS (DOE/EIS-0082-S2)**, The proposed action is to construct and operate a process to replace In-Tank Precipitation as part of the SRS High Level Waste Management System. The draft EIS is expected in November 2000, with the final in June 2001.

EIS - Environmental Impact Statement

SEIS - Supplemental Impact Statement

EA - Environmental Assessment

FONSI - Finding of No Significant Impacts

ROD - Record of Decision

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For more information on this or other environmental and compliance activities at SRS, please contact:

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Access the Environmental Notice web site:
[http://www.SRS.GOV/general/srenviro/
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