

## COVER SHEET

**RESPONSIBLE AGENCY:** U.S. Department of Energy (DOE)

**TITLE:** Savannah River Site, Spent Nuclear Fuel Management Final Environmental Impact Statement (DOE/EIS-0279)

**CONTACT:** For additional information on this environmental impact statement, write or call:

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U.S. Department of Energy, Savannah River Operations Office, Building 742A, Room 183  
Aiken, South Carolina 29802  
Attention: Spent Nuclear Fuel Management EIS  
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The EIS is also available on the internet at: <http://tis.eh.doe.gov/nepa/docs/docs.htm>.

For general information on the process that DOE follows in complying with the National Environmental Policy Act, write or call:

Ms. Carol M. Borgstrom, Director, Office of NEPA Policy and Assistance, EH-42  
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Washington, D.C. 20585  
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**ABSTRACT:** The proposed DOE action considered in this environmental impact statement (EIS) is to implement appropriate processes for the safe and efficient management of spent nuclear fuel and targets at the Savannah River Site (SRS) in Aiken County, South Carolina, including placing these materials in forms suitable for ultimate disposition. Options to treat, package, and store this material are discussed. The material included in this EIS consists of approximately 68 metric tons heavy metal (MTHM) of spent nuclear fuel (20 MTHM of aluminum-based spent nuclear fuel at SRS, as much as 28 MTHM of aluminum-clad spent nuclear fuel from foreign and domestic research reactors to be shipped to SRS through 2035, and 20 MTHM of stainless-steel or zirconium-clad spent nuclear fuel and some Americium/Curium Targets stored at SRS.

Alternatives considered in this EIS encompass a range of new packaging, new processing, and conventional processing technologies, as well as the No Action Alternative. A preferred alternative is identified in which DOE would prepare about 97 percent by volume (about 60 percent by mass) of the aluminum-based fuel for disposition using a melt and dilute treatment process. The remaining 3 percent by volume (about 40 percent by mass) would be managed using chemical separation. Impacts are assessed primarily in the areas of water resources, air resources, public and worker health, waste management, socioeconomic, and cumulative impacts.

**PUBLIC INVOLVEMENT:** DOE issued the Draft Spent Nuclear Fuel Management EIS on December 24, 1998, and held a formal public comment period on the EIS through February 8, 1999. In preparing the Final EIS, DOE considered comments received via mail, fax, electronic mail, and transcribed comments made at public hearings held in Columbia, S.C. on January 28, 1999, and North Augusta, S.C. on February 2, 1999. Completion of the Final EIS has been delayed because DOE has performed additional analyses of the melt and dilute technology, discussed in Chapter 2 and Appendix G. Comments received and DOE's responses to those comments are found in Appendix G of the EIS.