



# Environmental Bulletin

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*from the Savannah River Site*

## **Environmental Assessment (EA) Being Prepared for Storage of Tritium-Producing Burnable Absorber Rods (TPBARs) at SRS**

The Tennessee Valley Authority (TVA) Watts Bar Nuclear Generating Station (Watts Bar) is providing TPBARs to the U.S. Department of Energy (DOE) facilities at the Savannah River Site (SRS). The Tritium Extraction Facility (TEF) at SRS will process the TPBARs to recover tritium. Due to the TEF construction and startup baseline schedule, TEF will not be ready to receive the TPBARs at the time of the first shipment from Watts Bar. Watts Bar will ship the TPBARs approximately one year before TEF is ready to receive the material. The Disassembly Transfer Bay in K Area is being evaluated as a temporary dry storage location for this material until TEF is ready to receive and process the material. The TPBARs will be transported to SRS and stored in shipping casks in accordance with a U.S. Nuclear Regulatory Commission Certificate of Compliance. DOE did not anticipate the need for this temporary storage in the original National Environmental Protection Agency (NEPA) review for TEF (Final Environmental Impact Statement for the Construction and Operation of a Tritium Extraction Facility at the Savannah River Site, DOE/EIS-0271). Transportation of the TPBARs to SRS was evaluated in the Final Environmental Impact Statement for the Production of Tritium in a Commercial Light Water Reactor, DOE/EIS-0288.

Notifications of DOE's intent to prepare this EA (DOE/EA-1528) were sent to the States of Georgia and South Carolina on March 25, 2005. If you would like a copy of the predecisional EA when it becomes available, please contact:

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## Current NEPA Actions Affecting SRS

• **Disposition of Scrap Metals Programmatic Environmental Impact Statement (PEIS) (DOE/EIS-0327)** This PEIS will evaluate alternatives for disposition of DOE scrap metals that may have been in radiological areas. The disposition options to be analyzed include continuation of the suspension on unrestricted release of metals for recycling, unrestricted release of scrap metals for recycling, and disposal. The notice of intent (NOI) for this PEIS was issued on July 12, 2001. A public scoping meeting was held on July 31, 2001, in North Augusta, South Carolina. The schedule is uncertain.

• **Supplemental PEIS on Stockpile Stewardship and Management for a Modern Pit Facility (DOE/EIS-0236-S2)** This PEIS will evaluate alternative sites (Los Alamos National Laboratory, Nevada Test Site, Pantex Plant, Waste Isolation Pilot Plant, and Savannah River Site) for a Modern Pit Facility, to provide the capability to manufacture plutonium pits for the United States nuclear weapons stockpile. This PEIS will be followed by a site-specific EIS to address the impacts of construction and operation of the Modern Pit Facility at the selected site. The NOI for this PEIS was issued on September 23, 2002. A local public scoping meeting was held on October 29, 2002, in North Augusta, SC. Information regarding the draft PEIS can be found at 68 FR 33487, June 4, 2003. The draft PEIS may be viewed electronically at [www.mpeis.com](http://www.mpeis.com). The final supplemental PEIS has been delayed due to Congressional concerns about timing and scope of project.

• **West Valley Demonstration Project (WVDP) Waste Management Environmental Impact Statement (EIS) (DOE/EIS-0337)** DOE's proposed action (and preferred alternative) is to ship radioactive wastes that are either currently in storage on the WVDP site, or that will be generated from WVDP operations over the next ten years, to offsite disposal locations, and to continue managing its onsite waste storage tanks. The potential environmental consequences of the proposed action are evaluated in the final EIS, including impacts to workers and the public from waste transportation and waste management. The final EIS also analyzes an alternative under which certain wastes would be shipped to interim offsite storage locations including SRS prior to disposal. The preferred alternative does not involve SRS. The final PEIS was issued in January 2004 and may be viewed electronically at <http://tis.eh.doe.gov/nepa/eis/eis0337/index.html>. The publication date for the Record of Decision is uncertain.

• **Construction and Operation of a Mixed Oxide Fuel Fabrication Facility at SRS (NUREG-1767)** DOE has contracted with Duke Cogema Stone & Webster to design, construct, and operate a proposed Mixed Oxide (MOX) Fuel Fabrication Facility that would convert depleted uranium and weapons-grade plutonium into MOX fuel. The proposed MOX facility would be located on the DOE's SRS in South Carolina. Use of the proposed facility to produce MOX fuel would be part of the DOE's surplus plutonium disposition program. The purpose of the DOE program is to ensure the

plutonium produced for nuclear weapons and declared excess to national security is converted to proliferation-resistant forms. The final EIS is available on the Nuclear Regulatory Commission web site ([www.nrc.gov](http://www.nrc.gov)) and the final Safety Evaluation Report is scheduled to be available for public review in April 2005.

• **SRS Natural Resources Management Plan** DOE is preparing a revised Natural Resources Management Plan (NRMP) for SRS. DOE prepared an environmental assessment (DOE/EA-0826) in 1993 to analyze the potential environmental impacts of continued management of SRS natural resources. Based on the analyses in the EA, DOE determined the proposed action was not a major Federal action significantly affecting the human environment within the meaning of NEPA, and issued a finding of no significant impact (FONSI). In 2000, DOE issued a revised FONSI that determined implementation of a revised Red-Cockaded Woodpecker Management Plan would have impacts no greater than those described in the 1993 EA. The draft NRMP was made available for public review in January 2005 and the final is scheduled to be issued in April 2005. DOE will review the draft NRMP and prepare the appropriate NEPA review.

• **National Pollutant Discharge Elimination System (NPDES) Wastewater Permit Compliance Alternatives at SRS (DOE/EA-1513)** The South Carolina Department of Health and Environmental Control has recently renewed SRS's NPDES Permit. This permit authorizes the continued discharge of wastewater effluents from SRS operations through 25 outfalls into State surface waters for the next five years. Compliance schedules have been negotiated with the State for certain outfalls to assist in meeting the new more restrictive permit limitations. A range of alternative actions to facilitate permit compliance at these outfalls has been identified and will be reviewed in this EA. A floodplain/wetland assessment and biological evaluation will also be part of the NEPA review. The final EA is scheduled to be available in April 2005.

• **Storage of Irradiated Tritium-Producing Burnable Absorber Rods (TPBARs) at SRS (DOE/EA-1528)** This spring, TPBARs will be discharged from a Tennessee Valley Authority reactor and sent to SRS for recovery of the tritium at the Tritium Extraction Facility (TEF). However, because TEF will not be authorized to receive the TPBARs until completion of readiness reviews (schedule for mid-2006), the irradiated TPBARs must be stored on a temporary basis at SRS. DOE-SRS did not anticipate the need for this temporary storage in the NEPA review for TEF. (see related article on page 1.)

## Citizen Advisory Board Recommendations

**Recommendation 206-Redirection of 3013 Container Surveillance and Storage Capability** Due to new Design Threat Basis guidance, DOE-SR decided to redirect plans for 3013 Container Surveillance and Storage Capability (CSSC) from the intended 235-F Building to the 105-K Building. However, before the 3013 CSSC capability can begin in K-Area, DOE-SR must obtain Congressional approval to allocate the necessary funds to begin the design work. DOE-SR reports that there is considerable cost savings by taking this redirection. The SRS CAB desires to see the actual numbers to support this claim and asked DOE-SR to verify the cost estimates for the 3013 CSSC Project in 105-K and provide documentation to demonstrate that there are considerable cost savings over performing these functions in Building 235-F and present this information to the SRS CAB on or before May 26, 2005. The Board also recommended that assuming sufficient cost savings can be realized, DOE-SR prepare the necessary documentation to obtain Congressional approval to begin design of the 3013 CSSC Project in 105-K and petition Congress as soon as possible to reallocate these funds.

**Recommendation 207- Planning and Scheduling To Complete SRS Cleanup** The SRS Citizens Advisory Board is concerned about the large amount of remedial starts of waste units facing SRS in the out-years (approximately 40% of the sites being started in the last five years) and the uneven sequencing of action starts. The SRS CAB believes that a more consistent leveling-out of the amount of work and associated funding is needed. Therefore, the Board recommended that DOE-SR demonstrate to the SRS CAB on or before September 26, 2005, that proper planning and coordination between the three parties are taking place so that consensus on operational, logistical, and financial details will be reached to assure completion of cleanup activities at the SRS by 2025. The Board also requested planned out-year schedules and cost estimates for SRS cleanup showing how the planned work activities and their sequencing can continue to find cost-savings and identify processes to accelerate the 2025 date for cleanup completion.

**Recommendation 208-SRS Artifact Storage and Long-term Records Management** The SRS CAB made recommendations regarding the climate and temperature curation needs for artifacts; requested a flow chart describing the process for integrating historical preservation activities; requested a formal presentation on the transfer of SRS programmatic functions and records management to Legacy Management and asked that as national security issues allow, DOE continue to provide public access to historical data through Internet access, via the SRS web site.

The Board also requested that DOE expand the Cold War Cultural Resources Management Plan to include all eligible historic properties and not restrict the eligibility to only Cold War designated facilities and properties. The requested that DOE

ensure that the SRS Records Administration interacts with the Artifact Selection Team and the SRS Cold War Heritage Team and assure that historical artifacts and records receive certified archival input and oversight.

Finally the Board asked of DOE-HQ that they ensure the public is included as members of any Local Stakeholders Organization associated with a DOE site through congressional legislation, starting with Rocky Flats, and that they have access to all available public records.

**Recommendation 209- SRS Transuranic (TRU) Waste Issues** On December 6, 2004, WSRC suspended the TRU waste processing at the Solid Waste Management Facility in response to safety issues regarding unvented TRU waste drums. Now that the flammability issues have been addressed and phased shipments have begun (with more stringent safeguards to protect workers, the public and the environment) the SRS CAB recommended that DOE accelerate the TRU waste drum shipments to WIPP to meet the FY05 gold metric baseline goal of 168 shipments if possible and in any case ensure that all legacy low activity drummed waste is shipped by November 2006 and requested a status report by the next Board meeting.

The SRS CAB also recommended that DOE accelerate the licensing and operational deployment of the TRUPACT III to meet the original delivery date at SRS of October 2007 or earlier and that DOE accelerate the licensing and operational deployment of the ARROWPAK to ensure shipment of all high activity drummed TRU waste by FY 08. The SRS CAB also asked DOE-SR to notify DOE-Carlsbad of the Board's support for Public Law 108-137 and ask that New Mexico Environment Department use operational experience to revise the WIPP-Waste Acceptance Criteria (WAC) to discard those criteria that do not reduce risks to workers, the public and the environment.

**Recommendation 210- SRS Non-Drummed Transuranic Waste** Although the SRS CAB is hopeful that the TRUPACT-III certification will occur earlier than expected they are concerned that the bottleneck will occur. The Board believes that if DOE places the necessary emphasis and resources on the certification process, non-drummed certification can be expedited and an inventory of certified non-drummed TRU waste can be ready and approved to be shipped to WIPP as soon as the NRC TRUPACT-III certification is received.

Therefore, the SRS CAB recommended that DOE accelerate the non-drummed certification process so that an approved program for TRUPACT-III package certification is in place well before October 2007. The Board also requested that SRS continue to repackage non-drummed TRU waste so a supply of packages prepared for TRUPACT-III certification and shipment is ready before October 2007. There are approximately 3,000 non-drummed waste containers of varying sizes at SRS.

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