



# Environmental Bulletin

Volume 16, Number 11  
June 10, 2005

*from the Savannah River Site*

## **Class 1 Prime Notice for F and H Area Hazardous Waste Management Facilities**

The Department of Energy (DOE)-Savannah River Operations Office submitted to the South Carolina Department of Health and Environmental Control (SCDHEC) modifications to Savannah River Site's (SRS) 1992 Resource Conservation and Recover Act (RCRA) Part B Permit Renewal Application for Volume IV and Volume V. These modifications detail changes to the monitoring requirements at the F- and H-Area Hazardous Waste Management Facilities.

The revisions (Revision 20 to Volume IV and Revision 23 to Volume V) propose to change the timeframe allowed to obtain synchronous water level measurements from 2 weeks to 30 days. These activities are considered Class 1 prime modifications that require SCDHEC approval prior to implementation.

More information, including the actual permit applications, is available for review and copying at the DOE Public Reading Room located in the University of South Carolina-Aiken Library, or by contacting personnel identified in this notice.

For additional information, contact Jim Moore, Westinghouse Savannah River Company, Savannah River Site, 742-A, Aiken, SC 29808 or J. T. Litton, Director, Division of Waste Management, South Carolina Department of Health and Environmental Control, 2600 Bull Street, Columbia, SC 29201-1708.

---

## **Upcoming 2005 SRS Citizens Advisory Board Meetings**

July 25 - 26  
Newberry Hall  
117 Newberry Street  
Aiken, S.C. 29803

September 26 - 27  
Holiday Inn - Coliseum at USC  
630 Assembly Street  
Columbia, S.C. 29201

November 14 - 15  
Embassy Suites  
5055 International Blvd.  
North Charleston, S.C. 29418

## 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 draft PEIS has not been issued, and 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.mpefis.com](http://www.mpefis.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 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 Environmental Impact Statement (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 scheduled publication date for the Record of Decision is June 2005.

- **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 (NRC) web site ([www.nrc.gov](http://www.nrc.gov)) and is also available in hardcopy format from the NRC. This NEPA review has been completed and updates regarding this action will not appear in future bulletins.

- **National Pollutant Discharge Elimination System (NPDES) Wastewater Permit Compliance Alternatives at SRS (DOE/EA-1513)**

The South Carolina Department of Health and Environmental Control (SCDHEC) 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 were reviewed in this Environmental Assessment (EA). A floodplain/wetland assessment and biological evaluation were also a part of the National Environmental Policy Act (NEPA) review. DOE issued a Finding of No Significant Impact (FONSI), based on review of the EA, in April 2005. This NEPA review has been completed and updates regarding this action will not appear in future bulletins.

- **Storage of Irradiated Tritium-Producing Burnable Absorber Rods (TPBARs) at SRS (DOE/EA-1528)**

This summer, 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. DOE issued a FONSI, based on review of the EA, on June 1, 2005. This NEPA review has been completed and updates regarding this action will not appear in future bulletins.

*Want more Information  
on any SRS NEPA Issues?*

For more information on any SRS NEPA issue  
call the SRS NEPA Hotline at 1-800-881-7292  
or E-mail at [nepa@srs.gov](mailto:nepa@srs.gov)

# Citizen Advisory Board (CAB) Recommendations

## Recommendation 211- Draft Salt Waste Determination

The SRS CAB is opposed to shutting down or drastically reducing the production rate at the Defense Waste Processing Facility (DWPF) and recommends that DOE proceed with interim technologies to ensure uninterrupted use of DWPF. Concerned about the safety of the Benzene in Tank 48 and its impact on DWPF and Saltstone, the Board recommended that DOE provide detailed information on Tank 48's strategy, alternatives, and potential impacts to DWPF and Saltstone by the next meeting.

Concerned about the uncertainties regarding curie content of the waste going to the Saltstone Disposal Facility (SDF), the Board recommended that DOE and SCDHEC work together to assure flexibility in operating the SDF to accommodate up to 5 million curies. The CAB also asked that DOE provide an independent scientific peer review on both the Vault 4 Saltstone Performance Assessment (PA) special analysis and the PA revision. The Board also requested the most recent tank-leak history and crack history in July 2005, and in April of each year thereafter.

## Recommendation 212- Salt Waste Processing Facility (SWPF) Confinement System

Based on concern expressed by Defense Nuclear Facility Safety Board (DNFSB) to DOE regarding standards governing the confinement approach used for SWPF design, the CAB feels that changing the standards would likely result in delays up to 16 months and increased cost. The CAB is interested in the schedule being accelerated, not delayed. They recommend that DOE work with DNFSB to resolve the issues.

Additionally, concerned that the delay may not be based on a risk-informed decision process, they ask that DOE provide an estimate of the risks of postponing High Level Waste (HLW) treatment and closing tanks using the existing seismic criteria and they asked DOE to review open issues related to the confinement system at the June Waste Management Committee meeting.

## Recommendation 213- Plutonium Vitrification Facility

Skeptical of the plutonium vitrification facility schedule, the SRS CAB recommended that DOE aggressively pursue funding to complete design and construction of the facility by 2010 or otherwise ensure that the DWPF's schedule will not be interrupted. The CAB also asked DOE to consider all potential plutonium material that may be processed at SRS when sizing the vitrification facility and asked DOE to investigate options other than co-disposal with Cesium-137 from high level waste.

## Recommendation 214- Plutonium Disposition Options

The CAB is concerned that SRS may receive additional plutonium before there is a viable and demonstrated disposition path available. The CAB recommends that no additional shipments of excess weapons grade plutonium are sent to SRS until five percent of the existing quantity has been dispositioned suc-

cessfully. The Board also recommended that other options, such as using H-Area, be considered for processing excess plutonium and recommends that DOE not rely solely on the Plutonium Vitrification Facility. A minority report was submitted by William Willoughby that noted his concern that limiting the recommendation to "DOE excess weapons grade plutonium" is too narrow. He requested that DOE send no significant shipments of DOE excess plutonium to SRS for long-term storage until the disposition path for this material has been determined and proven.

## Recommendation 215- F-Canyon Complex Decommissioning

Acknowledging that it is very early in the F-Canyon Complex decommissioning process, the SRS CAB requested that DOE consider conducting periodic informational briefings and/or public workshops to address various aspects of the decommissioning process and include the following:

- 1) How residual plutonium is quantified? How much is found? How will a decision be made on what to do with it?
- 2) What source term is under or near F-Canyon? How will it be characterized? How will it be factored into the final end state decision for the canyon?
- 3) What is the EE/CA and how it applies to Comprehensive Environmental Response Compensation and Liability Act (CERCLA) non-time critical removal actions?

## Recommendation 216 - End State Vision (ESV)

The CAB endorses the ESV document and the ESV, but points out while how the Site gets to an end may change, the end states should be known and should not drastically change over time. They submitted a list of recommendations in an effort to strengthen the ESV process, which include:

- DOE apply the risk-informed approach proposed by National Academy of Science (NAS) to determine the acceptable end states for all buildings, waste management facilities, reactors and active and inactive waste units containing radionuclides, heavy metals, or organic contaminants.
- DOE use a risk-informed application to determine the end state for Pu238 waste.
- DOE release decision documents to the public at the same time they are released for external agency review.
- DOE evaluate the impact to SRS end states and risk to stakeholders if Yucca Mountain doesn't open and consider alternate plans should the repository not open.
- DOE-HQ identify necessary actions to provide perpetual federal ownership of and responsibility for SRS.
- DOE-HQ identify necessary actions to formally/legally name SRS as a National Environmental Research Park and discuss the types of current and end state research in the ESV.

Separately, the Board requested that DOE-HQ identify and pursue Congressional Authorization to legitimize perpetual federal ownership of SRS and the identification of SRS as a National Environmental Research Park. They also asked DOE to describe the process for using performance assessments to determine risks and provide results to the SRS CAB. A progress report was requested by September 27, 2005.

# MAILING LIST

Name \_\_\_\_\_

e-mail address \_\_\_\_\_

mailing address \_\_\_\_\_

\_\_\_\_\_

Add to mail list

Remove from mail list

Correct my address

Mail to:

SRS Environmental Bulletin  
Savannah River Site  
Building 742-A  
Aiken, S.C. 29808



---

---

## The SRS Environmental Bulletin

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

Jim Moore

Paul Sauerborn

Westinghouse

Westinghouse

Savannah River Co.

Savannah River Co.

Aiken, S.C. 29808

Aiken, S.C. 29808

(800) 249-8155

(803) 725-0665

e-mail: jim02.moore@srs.gov

paul.sauerborn@srs.gov

---

---

The SRS Environmental Bulletin  
Savannah River Site  
Building 742-A  
Aiken, S.C. 29808

