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# Savannah River Site Citizens Advisory Board (CAB)

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## *2004 ANNUAL WORK PLAN*

March 4, 2004

## **INTRODUCTION**

The Savannah River Site (SRS) Citizens Advisory Board (CAB) is composed of 25 individuals from South Carolina and Georgia. Originally chosen by an independent panel of citizens from approximately 250 applicants, the board members reflect the diversity of the population affected by SRS. The members, who can serve up to three consecutive two-year terms, represent business, academia, labor, local government, environmentalists, special interest groups, and the general public. Two of the members specifically represent economically disadvantaged persons.

The Board is sponsored by the U.S. Department of Energy Office of Environmental Management and is chartered under the Federal Advisory Committee Act. The CAB provides advice and recommendations to the Department of Energy (DOE), the Environmental Protection Agency (EPA) Region IV, and the South Carolina Department of Health and Environmental Control (SCDHEC) on environmental restoration, waste management and related issues. The CAB uses issues-based Committees to focus on various topics. These issues-based Committees may form working groups or public focus groups to concentrate on a specific issue. The four issues-based Committees of the CAB are:

- Strategic and Legacy Management
- Waste Management
- Facility Disposition and Site Remediation
- Nuclear Materials

Although there are a variety of issues of interest to the CAB, there are limits to available time and resources. The purpose of this Work Plan is to establish priority issues for each of the Committees, and therefore for the CAB. It allows all Board members to be involved in setting the direction of the CAB, even for the Committees of which they are not members. It allows the CAB to prioritize resource expenditures (people and dollars), and also control the establishment of focus and working groups.

The Work Plan covers approximately one calendar year. The Committee chairs will strive to structure their activities to focus on the priority issues. It is understood that other issues may present themselves, resulting in deviation from the Work Plan. Deviating from the Work Plan is at the discretion of the Committee Chairs, however, they should inform the CAB when this is required.

## **ISSUES-BASED COMMITTEE DESCRIPTIONS**

### **Strategic And Legacy Management Committee**

The Strategic and Legacy Management (SLM) Committee is involved in strategic issues relevant to the future of the Savannah River Site. This includes long-term policy, planning and other “cross cutting” issues related to other CAB Committees. Its work includes many programmatic topics. Specific areas of interest are development and deployment of technology, the SRS budget decision-making process, future land use, long-term stewardship, and relevant national environmental policy. It encourages other CAB committees to integrate the notion of long-term stewardship into issue deliberations and CAB recommendations.

### **Waste Management Committee**

This Committee addresses the treatment, storage and disposal of various waste streams, including transuranic waste (TRU), low-level waste (LLW), mixed low-level waste (MLLW) and high-level waste (HLW). The Committee does this with the goal of reducing the highest risk to the public, workers, and the environment. The Committee also addresses issues related to transportation of waste and Environmental Management Integration, exclusive of the nuclear materials program.

### **Facility Disposition And Site Remediation Committee**

This Committee addresses the remediation of contaminated areas at SRS and addresses the various types of waste units, groundwater and surface water contamination. The Committee deals with issues related to the Federal Facility Agreement (FFA), risk management/risk assessment, funding, the regulatory process and other crosscutting issues that pertain to environmental restoration. The Committee also follows deactivation and decommissioning (D&D) actions taken to reduce risk and costs following a shutdown of an industrial, radioactive, or nuclear facility.

### **Nuclear Materials Committee**

This committee was established to study issues that involve nuclear materials (generally uranium and plutonium) that have an impact on present or future SRS activities. Issues include spent nuclear fuel program activities (foreign and domestic), nuclear materials management and nuclear materials integration. The committee addresses the consolidation, storage and disposition issues related to the legacy materials that were once part of the nuclear weapons

production cycle that are no longer needed for their original purpose, but are not considered waste.

## **SRS CAB 2004 PRIORITY LIST**

This Priority List is the result of a survey taken of the CAB members at the January 2004 CAB meeting in Hilton Head Island, South Carolina. The CAB members were given a list of 14 issues identified as priorities by the individual issues-based committees. The members were asked to rank the issues in order of their personal priority, with 1 being their highest priority and 14 being their lowest priority. The results of the survey was used to establish the list of issues described below in order of priority ranking.

### **1. Deactivation and Decommissioning (D&D) – Facility Disposition and Site Remediation Committee**

Issue Description. Deactivation and decommissioning actions are taken to reduce risk and costs, following shutdown of a facility. A resulting condition of deactivation can be safe storage. Safe storage is defined as a low risk/low cost condition of a facility following deactivation while waiting decommissioning. It is not considered an end state but can be an appropriate long-term condition. Decommissioning includes actions that are taken to place a facility in its final end state. The end state of a facility involves two choices, either demolition or entombment.

Importance: *D&D is receiving increasing attention by DOE and the public under the accelerated cleanup initiative. Efforts will focus on the F, M, D, and T areas of the Site.*

### **2. Disposition of Plutonium (Pu) not suitable for MOX – Nuclear Materials Committee**

Issue Description. Changes to the Mixed-Oxide Fuel (MOX) Program during FY'02 led to the cancellation of the proposed Immobilization facility. The decision has left DOE/EM with the responsibility to determine a new disposition path for non-weapons grade plutonium. The specific disposition path for this material is currently under review and a proposed strategy is expected during the coming year.

Importance: *The expedited development of a complete, well-considered plan for the disposition of all excess plutonium is needed to preclude unnecessary long-term storage of plutonium at SRS*

### **3. Integrated High Level Waste System and Related Issues – Waste Management Committee**

Issue Description. This topic involves a combination of low curie salt, the actinide removal process, saltstone, waste removal, tank closure, Waste on Wheels, and the Salt Waste

Processing Facility. Surrounding those issues is the Waste Incidental to Reprocessing (WIR) lawsuit that impacts salt processing and tank space. To continue to process waste through Defense Waste Processing Facility (DWPF), SRS must have the capability to also process salt. To process salt, the WIR must be resolved. DHEC believes that this can be resolved without Congress getting involved.

Importance: *The CAB will closely follow how the site will technically resolve the WIR related issues, process salt waste, and close tanks.*

#### **4. EM Vision of Plutonium Consolidation – Nuclear Materials Committee**

Issue Description. Assistant Secretary Jessie Roberson has created a series of teams to evaluate specific areas of concern as part of the “Top-to-Bottom Review.” One of these teams is working to find ways to expedite the disposition of all EM nuclear materials including Pu. Conclusions reached by this team may change some previously identified disposition pathways for nuclear materials throughout the DOE Complex. Cost effectiveness and security aspects of consolidation are some of the issues that are being evaluated and while no decision has been made, SRS may play a role in future consolidation efforts.

Importance: *Policy decisions that may result in the consolidation of the nation’s legacy plutonium to one location are a high environmental and homeland security priority for SRS stakeholders and the nation.*

#### **5. Risk Based End State Vision Document – Strategic and Legacy Management Committee**

Issue Description. Per the DOE guidance for developing a Site-Specific Risk-Based End State (RBES) Vision, this document will focus on ensuring that the Department’s cleanup strategy is driven by clearly defined end states based on risk. This RBES Vision document is the primary tool for communicating the RBES to the involved parties (i.e., DOE, regulators, public stakeholders, Tribal Nations, etc.) Site remediation will be dictated by the defined RBES.

Importance: *This is a high priority of DOE-HQ and other CABs. It is the plan that will dictate the clean up of the site and will involve the full SR CAB in all aspects of the site.*

#### **6. Transuranic (TRU) Waste Program – Waste Management Committee**

Issue Description. DOE began shipments of its TRU waste to the Waste Isolation Pilot Project (WIPP) in 2001, and exceptional progress has been made. However, many barriers, such as inventory issues, shipping containers, and drummed waste with high Pu loading, still

exist.

Importance: *The CAB needs to stay abreast of the TRU shipments to WIPP. A WIPP waste acceptance permit modification is being proposed, and if passed, will greatly impact the SRS waste. There will be no waste repository for waste generated from new missions or for waste that has already been shipped to SRS for storage at WIPP.*

## **7. Area Closure – Facility Disposition and Site Remediation Committee**

Issue Description. The Area Closure concept is part of the Comprehensive Cleanup Plan in that optimizations can be attained within the D&D and Soil and Groundwater Closure Projects (SGCP) activities as an entire area is completed before moving to the next area. This will require effective coordination between both the D&D and SGCP. T-Area will be the first area closure, scheduled for completion in 2006. Coordinated work activities in M, F, and D Areas have started. Each completed closure area will be removed from the Superfund's National Priority List (NPL).

Importance: *The Committee will closely follow the increase in activity and the continuing progress in both above ground and below ground cleanup efforts according to the Comprehensive Cleanup Plan.*

## **8. Low Level Waste (LLW) Management - Waste Management Committee**

Issue Description. The accelerated D&D program cannot continue without a good LLW management program. Future potential missions, such as MOX or the Tritium Extraction facility, depend on active and robust LLW disposal options.

Importance: *LLW management is critical to the development and support of existing and new missions at the site.*

## **9. Technology and Environmental Resources – Strategic and Legacy Management Committee**

Issue Description. With accelerated cleanup a main driver for the DOE Complex, new and different technologies will be required to meet these demands and reduce costs. Technology development is increasingly important in those instances where there is no safe or effective current technology available to address contamination and disposition problems as DOE sites move to closure. The National Resource Management Plan provides policy direction for operations management. It applies to all SRS organization elements and contractors performing work that may affect land, air, or surface water resources on the Site.

There is also an attempt to institutionalize SRS as a National Environmental Research Park (NERP). A NERP is a DOE land holding and outdoor laboratory open to environmental research, especially energy-related studies. The CAB supported this effort and participated in meetings and drafts of the requesting resolution.

Importance: *These technology and environmental resources are of critical importance to reducing costs and finding new methods for environmental cleanup.*

#### **10. Budget Development / Gold Metrics – Strategic and Legacy Management Committee**

Issue Description. Funding, risk-based priorities and performance-based incentives are critical for completing the EM mission at SRS. Assuring that SRS has adequate funding and that funding is being allocated to the greatest risk reduction projects is of utmost interest to the CAB and stakeholders. For stakeholder inputs to be of any consequence, early and constant involvement is required in the budget decision process. Critical to the funding process is the monitoring of project completion. The Gold Metrics or performance metrics informs SRS management as well as the stakeholders of the progress of the work being accomplished.

Importance: *The budget is the driver of all site initiatives and the Gold Metrics measure the performance of work to that budget.*

#### **11. F&H Area Groundwater - Facility Disposition and Site Remediation Committee**

Issue Description. The F&H Area Groundwater program historically has been an aggressive pump and treat deployment. In late 2003 the State of South Carolina authorized SRS to suspend the pump and treat program. In 2004 new passive technologies will be deployed to more effectively handle the creek and groundwater contamination. Engineered barrier walls will be installed to prevent tritium releases to the creek and alkaline solutions will be injected into the acidic groundwater conditions to change the water chemistry and prevent metal contamination from seeping into the creek. If proven successful, these technologies would reduce that cleanup program by millions of dollars a year.

Importance: *The Committee will closely follow this new technology never before used at the SRS. This technology should slow groundwater flow and concentrate contaminants for more efficient extraction.*

#### **12. 235 F Upgrades – Nuclear Materials Committee**



Issue Description. Surveillance capability for plutonium storage packages is being installed in Building 235-F. Storage package surveillance is required per the approved safety analyses to support plutonium storage after material stabilization. The surveillance capability is being installed in addition to storage racks to support FB-Line deinventory. Activities to complete the design and initiate construction for the surveillance capability are expected in 2004.

Importance: *DOE standards require that a surveillance capability and a satisfactory interim storage configuration be established for plutonium that has been stabilized and packaged into certified containers. SRS must adhere to this requirement until the packaged plutonium can be sent to its final storage location*

### **13. Western Sector - Facility Disposition and Site Remediation Committee**

Issue Description. Construction of the Western Sector Dynamic Underground Stripping (DUS) project is underway. Start-up testing is scheduled to begin in October 2004 and operations are to continue through early 2008. This technology has proven very successful in its first deployment. The Western Sector deployment represents the largest scale DUS in the DOE complex. An estimated one million pounds of solvents will be removed from the subsurface soils and groundwater.

Importance: *The Committee will monitor the effectiveness of this cleanup deployment, which is the largest of its kind in the DOE complex. This project is an important part of the accelerated cleanup program.*

### **14. EM Performance Management Plan – Strategic and Legacy Management Committee**

Issue Description. The stakeholders commented on the Environmental Management Program Performance Plan (PMP), Rev. 6, August 7, 2002. This document describes the approach that will be taken to achieve accelerated cleanup of SRS. It focuses on reducing risk and accelerating cleanup to reduce life-cycle cost. This emphasis of reducing risk and accelerating cleanup requires adopting new methods and ways of doing business to advance the cleanup program. Stakeholder input into decision-making must be accelerated as well

Importance: *This plan provides direction to achieve the accelerated cleanup at SRS and must have stakeholder input.*

### **15. Glass Waste Storage Building (GWSB) and Yucca Mountain – Waste Management Committee**

Issue Description. GWSB #2 will be needed by October 2006, because GWSB #1 will be full of canisters. The dates for the opening of the High Level Waste Repository at Yucca Mountain may change from 2010 to 2019. The Waste Management Committee questions if the repository will open and (if it does) if there will be room for SRS waste. At one time, SRS waste was on a priority list. This no longer appears to be the case.

Importance: *If the canisters are indeed going to be shipped from SRS to Yucca Mountain, the GWSB #2 building plans need to include shipping facilities. To date, there are no such facilities included in the plans. More importantly, the committee does not want vitrified high-level waste permanently stored in the State of South Carolina and is concerned about the environmental and safety impacts if the vitrified HLW canisters remain at SRS past the design life of GWSB #1 and #2.*