

**Savannah River Site  
Citizens Advisory Board  
Meeting Minutes  
January 22-23, 2007  
Hilton Head Island, SC**

**Monday, January 22, 2007, Combined Committee Meeting**

**Attendees:**

SRS CAB Members

Meryl Alalof  
Donna Antonucci  
Manuel Bettencourt  
Leon Chavous  
Gerald Devitt  
Art Domby  
Mary Drye  
Mercredi Giles  
Cynthia Gilliard-Hill  
Judith Greene-McLeod  
Kuppuswamy Jayaraman  
Ranowul Jzar

Stakeholders

Glenn Carroll  
Mel P. Galin  
Charles R. Pair  
Jack Roberts  
Bill Willoughby  
Gary Zimmerman

Bill Lawless  
Wendell Lyon  
Jimmy Mackey  
Madeleine Marshall  
Robert Meisenheimer  
Joe Ortaldo  
Karen Patterson  
Barbara M. Paul  
Wade Waters  
Alex Williams  
Gloria Williams Way

Regulators

Don Siron, SCDHEC

Agency Liaisons

Yvette Collazo, DOE  
William Spader, DOE  
Albert Frazier, GDNR  
Robert Pope, EPA  
Shelly Sherritt, SCDHEC  
Dawn Taylor, EPA

DOE/Contractors

Jeffrey Allison, DOE  
Richard Arkin, NNSA  
Helen Belencan, DOE  
Jim Brownlow, DOE  
Rebecca Craft, DOE  
Robert Edwards, DOE  
Gerri Flemming, DOE  
Jenny Freeman, V3  
Dawn Gillas, DOE  
Charles Hansen, Parsons  
Doug Hintze, DOE  
Larry Ling, DOE  
Rick McLeod, V3  
Mindy Mets, V3  
Jim Moore, WSRC  
Mike Schoener, MAS  
Sheron Smith, DOE

CAB Facilitator, Mike Schoener, opened the meeting by stating the meeting rules and encouraging open participation by the public during the meeting. He also made administrative announcements, including the introduction of Jenny Freeman, present to support Mindy Mets.

Mr. Schoener introduced the first order of business, the 2007 Work Topics for Board consideration. These topics are considered annually in January. Mr. Schoener explained that he and Technical Advisor, Rick McLeod, will work together to gather input from Citizen Advisory Board (CAB) members on topics of importance to them to be included in this year's work plans. This will be done before the next full CAB meeting in March. Committee members were encouraged to submit their ideas to their respective committee chairs, and Mr. McLeod would work with the committee chairs to put the Work Plan together. In response to CAB Member Manuel Bettencourt's question about if something is missing could it be submitted, Mr. Schoener said that CAB members' ideas should not be limited to the Topics for Consideration, to be presented by Ms. Collazo.

**Topics for Consideration 2007**

***Presentation by Yvette Collazo, Department of Energy (DOE) Assistant Manager for Closure Projects***

Ms. Collazo introduced herself and thanked everyone for attending. She explained that each January, the list of topics for consideration is presented. DOE Savannah River Site (SRS) Deputy Manager, William Spader, made the presentation last year. The CAB reviews the list of topics that go into the work plan. The Federal Advisory

Committee Act (FACA) advises that advisory boards should focus on topics requested by DOE, and the topics in her presentation are considered requested by DOE. The 2007 topics were submitted by program managers in the various DOE programs and are grouped by SRS CAB committee. The purpose is to share DOE's 2007 plans and activities to the CAB and for the CAB to consider them for public involvement

The Topics for Consideration that Ms. Collazo presented are as follows:

1. Facility Disposition and Site Remediation

- Groundwater Strategy
  - 13 major groundwater plumes identified
  - groundwater cleanup
  - natural attenuation
  - end state vision for groundwater
  - groundwater remediation goals
- Soils and Groundwater Project Update

There have been some successes over the last year:

  - T Area Completion
  - Installation of the cap in the old radiological burial ground
  - Mechanical completion of D Area
  - Completion of ERH (electrical resistance heating)
  - Prepping to use ERH in the CMP Pits
- C-Area Burning Rubble Pit
  - Statement of Basis/Proposed Plan will be drafted and made available for public comment by mid-FY07. The plan will propose final cleanup action for solvent-contaminated soils, the vadose zone, soils, and groundwater.
- M-Area Operable Unit
  - There is an early action, the excavation and off-site disposal of solvents and radiologically contaminated soils. An EECA (Environmental Evaluation and Cost Analysis) for the proposed remediation actions is out for public comment, beginning January 11, 2007, extending to February 9, 2007.
- P-Area Operable Unit
  - Soil and groundwater characterization results will be presented in a required briefing that will discuss the nature of the contamination and possible actions.
- Deactivation and Decommissioning
  - There has been a lot of decontamination and decommissioning (D&D) activity over the last three years, but the pace will change because there is a fewer number of facilities. The common goal is to support area completion, and soils and groundwater are part of remediation.
  - The primary D&D activity in 2007 will be the Interim Action/Proposed Action Plan for the Reactor End State Decision. The CAB will be involved in this plan.

2. Waste Management

- TRU Waste Disposition
  - Plan to make 100 shipments to the Waste Isolation Pilot Project (WIIP) and disposition 3500 Transuranic (TRU) waste drums.
  - Plan to remove waste from the TRU waste pads, beginning on July 13, 2007.
  - Will also start up and deploy the assay and x-ray equipment in fiscal year (FY) 07
- Low-Level Waste (LLW)/Mixed Low-Level Waste (MLLW)/Hazardous Waste
  - Legacy waste is complete, and DOE continues to support the disposition of currently generated waste streams.
- Liquid Waste
  - Defense Waste Processing Facility (DWPF) continues to produce canisters with a goal of 186 cans for FY 07
  - Continue to remove sludge waste from tanks 4, 5, and 6; currently working on tank 6; working with the Department of Health, Environment, and Control (DHEC) in the Federal Facilities Agreement (FFA) process to negotiate new closure dates for tanks 18 and 19.
  - All other tank closures are on schedule in accordance with FFA commitments

- Will consult with the Nuclear Regulatory Commission (NRC) and DHEC on the closure of tanks and the F Tank Farm PA in support of a waste determination for tank closure.

### 3. Nuclear Materials

- Environmental Management (EM)'s vision on Plutonium
  - DOE formed teams to study methods to expedite the disposition of all EM nuclear materials, including plutonium management. The primary issues related to plutonium management are cost effectiveness and security. Although there has been an evaluation, no decision has been made. The committee will monitor SRS on its role in the future.
- Plutonium Storage & Surveillance at SRS
  - Safe storage of plutonium is ongoing at K Area.
  - 3013 Container Surveillance and Storage Capability (CSSC)
  - Plutonium storage packages in development to support plutonium storage
  - Activities to complete are
    - The design and construction in K Area for CSSC
    - Interim capability is in start-up review to allow appropriate surveillance to be performed until the new facility becomes operational
- Disposition of Plutonium Not Suitable for MOX
  - Project is in conceptual design phase, with preliminary design to begin in FY 07
  - Critical Decision (CD) – 0 and CD-1 have been approved by the Deputy Secretary of Energy
- Spent Fuel Storage and Disposition
  - SRS continues to receive domestic and foreign fuel in L Area for safe storage of spent fuel
  - Waiting on final disposition
- Miscellaneous items
  - As accelerated cleanup activities continue, a small inventory of miscellaneous nuclear items remains such as fuel targets and sources, the disposition paths of which may change
  - Stakeholder interest will remain high until final disposition plans are made and implemented

### 4. Strategic & Legacy Management

- Budget Development/Gold Metrics
  - Early involvement of CAB in budget process is DOE goal
- End State Vision Document
  - There is an annual update of changes to the end state vision that has been provided by the CAB Strategic and Legacy Management Committee (SLMC). This presentation will include discussion on switching of some of the areas of soil and groundwater to better accommodate schedules and completion of certain areas that are more possible than others, specifically, D Area and N Area
  - Any waste disposition project and nuclear materials project updates

CAB Member Bill Lawless asked when the Board could have an update on MOX. The request was made to ask Rick Arkin (NNSA) to give a courtesy briefing at the March 2007 full CAB meeting, and the suggestion was made that if he does come, his appearance should be widely announced so that people who are not CAB members will know and can plan to attend.

Technical Advisor McLeod requested including biomass utilization at steam plants as a topic of interest. Board Member, Mackey, said that he had a report that no one has seen about this issue, and he will share it with the other CAB members. The Facilitator agreed that biomass utilization is an acceptable topic of interest and reminded the CAB members that once the plan is made, it will be subject to change.

CAB Member Mackey suggested inserting a "Miscellaneous Items" bullet under Strategic and Legacy Management in Ms. Callazo's presentation. He said that the SLMC members could identify and prioritize the items.

Questions and comments:

1. A member of the audience encouraged DOE to make sure the CAB reviews on an annual basis all environmental monitoring results and the dose to the public. The Facilitator said that those reviews are done routinely, and the CAB always receives the annual report.
2. CAB Member Bill Lawless suggested adding as a topic of interest under Liquid Waste the point of compliance for cleanup of the HLW tanks, which he thinks may be the driving force for postponing the decision to close the tanks.
3. Shelly Sherritt, South Carolina Department of Health and Environmental Control (SCDHEC), asked if the monitoring of the treatment facilities comes under Liquid Waste. Answer was yes.

The Facilitator reported that CAB Board Chair, Karen Patterson, requested that CAB members rank the topics of interest from high to low. CAB members were instructed to use their hand-outs from Ms. Collazo's presentation to make the rankings from the entire list and give their hand-outs to Mr. McLeod. The ranking would give the Board an idea about the top priorities.

The Facilitator instructed CAB members to remember to add canyon utilization to Nuclear Materials, at CAB Member Manuel Bettencourt's suggestion, and to add Ms. Sherritt's suggestion about monitoring releases from the treatment facilities.

Additional topics of interest added by Mr. Lawless were the point of compliance for cleanup of the HLW tanks and saltstone operations and the Salt Waste Processing Facility (SWPF).

The Facilitator made sure that the above topics were all Liquid Waste issues and said they'd be broken out clearly in the Work Plan.

CAB Member Joe Ortaldo asked if the Work Plan would be like last year's, with a lot of detail. The Facilitator assured Mr. Ortaldo and the other CAB members that the Work Plan would be very detailed and that this was just the first cut. The final Work Plan would be presented at the March CAB meeting.

#### **Public Comments:**

A member of the audience, not a CAB member, made the comment that the budget is a big problem this time of year, and he believes that waste removal should be number one, taking precedence over nuclear materials storage and facility disposition.

Glenn Carroll, a member of the audience and a representative of Nuclear Watch South, commented that the Board should be aware of the lack of a plan for MOX waste under the facility operating license currently under review. She thinks this is an oversight.

CAB Member Lawless asked that DWPF be added to Liquid Waste and he stressed that operating the DWPF at maximum capacity is a priority.

CAB Board candidate, Charles Pair, introduced himself, at the Facilitator's request, and ex-Board members, Mel Galen and Bill Willoughby, were introduced.

#### **Nuclear Materials Committee, Manuel Bettencourt, Chair**

In preparation for reviewing and revising Recommendation 243, CAB Member Bettencourt introduced CAB Member Judith Greene who presented a Plutonium Vitrification Update and provided background information, including the following highlights:

- To ensure that plutonium will not be used to make nuclear weapons, it must be put into a non-weapons useable form.
- An acceptable process for immobilization is vitrification - mixing the plutonium with molten glass and pouring it into metal containers to form glass logs. A low concentration makes it harder to re-extract the plutonium, but increases the number of logs requiring storage.
- DOE has approved vitrification as the preferred technology to immobilize plutonium, and the K-Area Complex at SRS is the proposed location of the planned facility that would provide the capability to vitrify the plutonium.

- DOE has not made a final decision to consolidate the non-MOXable plutonium at SRS and is evaluating the optimal plant size.
- During the vitrification process, the impure plutonium would be melted with glass and poured into small cans. The small cans of vitrified plutonium would be placed inside larger, high-level waste canisters and shipped to the DWPF at SRS where they would be filled with glass containing high-level waste before being shipped to the national geological repository for final disposal.
- The vitrification facility is currently planned to have a design life of 20 years and will be operational for 7-9 years.
- If conceptual design is completed in FY2007, the facility can be operational in FY2013 (assuming full-funding is received in FY2008 through FY2013).
- DOE believes this will be enough time to complete vitrification of up to 13 MT of plutonium and placement of the vitrified plutonium into DWPF canisters consistent with the current DWPF schedule. In other words, the vitrification would be compatible with the current DWPF schedule.

CAB Member Greene also reviewed prior comments, including the following highlights:

- The SRS CAB stated its support for the rapid disposition of stored plutonium across the DOE complex a little over 18 months ago.
- The SRS CAB still believes that the assets at SRS offer unique advantages relative to plutonium handling and vitrification experience.
- However, many of the SRS CAB's original questions remain unanswered
  - The SRS CAB is concerned about the facility schedule based upon the funding needs. Is there enough time available to complete vitrification of all surplus non-MOXable plutonium without impacting the DWPF schedule?
  - If anticipated NEPA documentation encounters difficulties, the schedule could unravel. Could some of the NEPA document preparation begin along side CR-1?
  - The SRS CAB is concerned that the cost of such a crucial facility is still unknown and would like to be kept informed regarding developing funding estimates.

CAB Member Greene then led CAB members through the draft motion:

In an effort to expedite the plutonium vitrification facility at SRS, the SRS CAB recommends that DOE:

1. Provide justification for the current NEPA documentation schedule and defend why it could not start any earlier to the SRS CAB by March 26, 2007.
2. Provide an overlay of the preliminary plutonium vitrification facility schedule versus the current DWPF operational schedule to demonstrate the anticipated impacts by March 26, 2007.
3. Provide final funding estimates for the plutonium vitrification facility to the SRS CAB preferably as soon as available, but no later than July 23, 2007.

The Facilitator then asked if there were any comments to the proposed recommendation. Some wording changes were made. Additional comments on the draft motion included:

CAB Member Ortaldo asked if we're really saying to DOE, "Let's get the NEPA process started as early as they can." CAB Member Bettencourt's answer was, "Yes." He stated that we don't know why DOE can't start the NEPA process earlier, so, let's ask the question. We would like to start earlier but we don't know if there is some reason DOE can't start earlier. We want information so we'll know if they can start earlier, or if they can't.

Ms. Carroll commented that she appreciates the SRS CAB's work on the plutonium issue and that she supports the CAB's advocacy for plutonium immobilization. She related that on Friday, January 19, 2007, 44 groups lobbied Congress with a letter that was provided to the CAB that asks that vitrification be funded over MOX.

CAB Member Ortaldo reminded everyone that the letter is about surplus plutonium.

#### **Waste Management Committee**

CAB Member Ortaldo presented the committee update in Mr. Bob Meisenheimer's absence at this portion of the meeting. He thanked DOE for allowing him to represent the CAB at a workshop in Aiken, South Carolina, on December 12-14, 2006, called the *Cementitious Materials for Waste Treatment, Disposal, Remediation, and Decommissioning Workshop*. The workshop was significant for the work of the SRS CAB because it pertained to

saltstone and the cleanup of waste tanks, the grouting into the tanks. The workshop lasted three days, and 98 people attended from six countries and 14 states. Forty-seven formal presentations were made that pertained to the performance of cementitious materials and the modeling to predict how these materials will perform. CAB Member Ortaldo was asked about the SRS CAB's perspective on the use of such materials for the disposal of low-level waste, and he shared his answer with CAB members. His answer was that the SRS CAB supports these kinds of technologies when used to dispose of the appropriate waste. In general, the SRS CAB has four requirements:

1. The use of peer-reviewed technology that has been demonstrated at an adequate scale,
2. The use of peer-reviewed prediction performance models,
3. Reliance upon a regulatory-accepted monitoring program with appropriate oversight, and
4. Appropriate contingency plans if the performance of the materials doesn't meet the requirements or predictions of the models.

### ***Presentation by Charles Hansen, Parsons Infrastructure & Technology – Salt Waste Processing Facility Status***

1. What Has Happened This Year?
  - Enhanced Preliminary Design was completed on schedule on 9/15/2006
  - DOE's independent technical review concluded that SWPF is ready to proceed to final design. Final design is in progress.
  - Critical Decision (CD)-2 performance baseline package was submitted for External Independent Review on January 8<sup>th</sup> with approval planned for February:
    - The schedule was aimed at starting hot commissioning operations as early as possible. Construction planned for start in FY 2007 (site preparation and basemat).
    - Construction planned for two shifts per day with planned overtime each week.
    - Design completion based on use of overtime and increasing project staffing.
    - Baseline is lean and mean but achievable.
  - Parsons made some management changes in October (Project Manager, Chuck Terhune retired in October 2006. Dave Amerine is the new Project Manager, as of October 5, 2006).
2. SWPF Project - Major Management Changes
  - Experience in Safety and Environment brought to bear with Bob French, with EnergySolutions, who ran similar operation at Idaho, and his deputy, Alice Doswell, who has significant experience with SRS and DHEC.
  - Experience in safe, on-time construction with Chuck Swain taking over and reporting to Dave Amerine directly.
  - Dave Amerine has placed engineering test program under the wing of the Startup Manager, Skip Singer, but also reporting directly to the Design Build Manager, Jack Kasper.
  - The new plant manager, Jim Van Vliet, reports directly to Dave Amerine. A focus will be on training. Training is essential for safe construction and for effective testing.
  - A more robust project control and project direction role under Bill Pettigrew who has significant experience at both SRS and Hanford, and on other nuclear projects.
3. SWPF Organizational Chart – blank boxes – will be supplied at a later date.
4. What is Coming Up?
  - Independent Review of the CD-2 Baseline by the DOE Office of Engineering & Construction Management (OECM) in January.
  - Startup of the cold operations testing of full scale Caustic Side Solvent Extraction (CCSX) system at EnergySolutions facility in Barnwell, South Carolina, in January. We would like the CAB to plan to visit this facility in the near future.
  - Independent DOE review of Integrated Safety Management System Implementation in January
  - Congressional action on the FY 2007 budget in February.
5. Project Risks
  - Congress has not acted on the FY 2007 President's budget request and may extend a Continuing Resolution (CR) for the entire fiscal year. Construction may not be funded and full funding required for design may not be available in a CR. This could delay startup of SWPF.
  - Based on funding guidance from DOE, on January 2, 2007, Parsons halted use of most overtime, reduced travel to a minimum and has stopped hiring staff. These actions will result in a delay to

completion of design and start of construction. The full impact will not be clear until February when the Congress acts on the FY 2007 budget.

- Parsons and DOE are working to avoid staff reductions. Any staff reduction could lead to experienced staff seeking other opportunities. Competition for engineering and construction assets has been fueled by local demand.
  - Parsons and DOE are working actively with the Defense Nuclear Facilities Safety Board (DNFSB) regarding their recent letter on SWPF design. A senior level meeting was held in DC on January 12, 2007.
  - The SWPF Risk Assessment and Management Plan has been updated and cost and schedule contingency determined. Cost contingency has been included in the project funding requirements. Schedule contingency is being factored into the performance baseline schedule. Mitigation plans are in place to minimize the impacts of risks.
6. Caustic Side Solvent Extraction (CSSX) Full-Scale Test (FST) Overview
    - CSSX FST will validate the SWPF full-scale design
    - CSSX FST to be conducted December 2006-February 2007
    - Test system located at EnergySolutions Barnwell Processing Facility
    - Liquid waste stimulant will be used for testing
  7. Test System Design
    - 11 full-scale, hanging rotor contactors at prototypical spacing
    - Contactors include cooling jackets and Clean In Place systems
    - 4 extraction contactors, 2 scrub contactors, 4 strip contactors, and 1 wash contactor
    - Hard piping between contactors
    - Support systems designed to provide prototypical feed rates for all fluids
    - Vent header system provides prototypical headspace pressures
  8. System Assembly
    - System fabricated and assembled by parsons in Pasco, Washington
  9. CSSX Hydraulic Performance Testing
    - System hydraulic performance testing conducted by General Atomics at their LaJolla Facility
  10. Test Plan Objectives
    - Demonstrate system operation free of gas and liquid hydraulic restrictions
    - Determine the stage efficiencies for full-scale, hanging-rotor contactors
    - Evaluate contactor performance at elevated flow rates
    - Determine minimum flow rates with acceptable system performance
    - Evaluate hydraulic performance sensitivity to waste feed density
  11. Test Plan Objectives
    - Estimate solvent losses in Decontaminated Salt Solution (DSS) and strip effluent
    - Demonstrate adequate solvent recovery in full-scale equipment
    - Evaluate the CSSX process response to upset/off-normal conditions
    - Optimize the startup/shutdown/flush procedure
    - Evaluate solvent quality trends and evaporation rates.

### **Questions:**

CAB Member Lawless sent a series of questions to Dave Amerine (Parsons), and Terry Spears from DOE had provided answers. Sheron Smith provided copies of the these answers at the meeting.

CAB Member Lawless asked if it were true that the baseline for the SWPF is \$830 million. Mr. Hansen answered that all cost estimates are currently under review at DOE, and he doesn't think DOE has published the results yet. CAB Member Lawless stated that as we understand it, work has "stalled out" since funding is on hold due to the Continuing Resolution (CR), and he asked if that were true. Mr. Hansen responded that Parsons is continuing to execute higher design, but at the end of last year, they slowed down to be sure they weren't anti-deficient at the end

of the FY. If Congress freezes them at FY06 levels, the worst thing would be to lay off the design team at the end of the FY when they need to complete design in the first quarter of the next FY.

CAB Member Lawless stated that, according to Terry Spears, Parsons has taken prudent action in dealing with an unknown budget and he asked if Parsons has lost engineers, needs engineers, and if people are leaving for other facilities. Mr. Hansen answered that with the intense competition for engineers in the local area, they've had normal attrition. Parsons had plans to ramp up at the end of December 2006 and into January 2007, but have had to put plans on hold.

CAB Member Lawless asked if the budget impasse had any impact on the deliverable date for completing the construction milestone and starting hot operations by September 2011. Mr. Hansen responded that any delay or reduction in effort places meeting that deliverable date at risk, but they won't know how much that is until the full budget impacts are known sometime in February.

CAB Member Lawless asked about the volume processing rate and related that a National Academy of Sciences' review of the SWPF, going on line in 2011 and coming offline in 2019, estimates that approximately 75 million gallons of water combined with Liquid Waste will come out of the tanks, which translates to roughly about 9 million gallons/year. He asked if Mr. Hansen agreed with that estimate of capacity. Mr. Hansen said that he did not know the latest advertised capacity. The nominal figure is 6 million gallons/year, but he thought the facility would produce more. Mr. Hansen asked Larry Ling, DOE, to confirm the 6 million gallons/year figure, which Mr. Ling did.

CAB Member Lawless said that he had heard a rumor that there's a possibility that Parsons has lost six months to a year in meeting the 2011 date. He asked if it were possible that Parsons could ramp up and speed up the volume rate to meet the 2019 date. Mr. Hansen responded that from a design standpoint, the design is relatively fixed on what the facility is capable of producing, and 6 million gallons/year is nominal for what the facility can do. He believes the facility can produce more but won't know if it will be able to perform at that rate over a long period of time until the facility is up and running.

CAB Member Lawless outlined the DNFSB's finding of three serious errors (from their perspective). They are

1. The model used by Parsons/SRS is riddled with analytical errors,
2. Soil stiffness simulations failed to meet PC3 criteria, and
3. DOE's use of its review teams has been inadequate.

He asked for comment by Mr. Hansen, who responded by saying that he would not speak for DOE, but that Parsons has been overseen by the SRS Project Office and an independent review team. Both agreed with their established path forward. They were aware of the DNFSB's deficiencies, but they thought they had identified a path of resolution. They are now in the process of reexamining the issues with DOE, and they think they'll come up with a path forward that will satisfy the DNFSB and give them flexibility.

CAB Member Joe Ortaldo commented that he would like to put in a plug for the next Waste Management Committee meeting on February 20, 2007, at which time the Committee will address everything in the letter.

CAB Member Lawless commented that he has a concern that the DNFSB is ignoring the larger issue of the deteriorating infrastructure of tanks (cracked tanks, pipes between tanks). If there were a substantial earthquake, we would see the possible loss of waste from the tanks and a serious leak of contaminants into the environment, and his concern is that DOE not allow the DNFSB to slow progress down. Mr. Hansen responded by saying that Parsons recognizes that it's their job to propose to DOE that the full issue is discussed and that they're not stopped unless it's absolutely necessary.

CAB Member Mackey asked that given that the CR may last the entire FY what is Mr. Hansen's assessment given that Parsons is at 35% construction and they need to be at 60 to 90% for construction funding to be released. He asked if DOE SRS have the flexibility to move \$5million to make allowances for budget problems. Would DOE be able to reprogram funds to keep the SWPF on schedule?

Mr. Spader responded that DOE doesn't know what the budget guidance will be, but that they need to know, and it's up to Congress in terms of FY07 budget. DOE does have the flexibility to do some reprogramming activity and that the good news is that the importance of this project is understood vertically within DOE, and they're trying to get a satisfactory answer.



CAB Member Mr. Mackey asked if DOE is looking at in-house contingencies in case Congress keeps funding at the FY06 level. Mr. Spader responded that it all depended on Congress.

CAB Member Kuppaswamy Jayaraman asked about the approval and funding of the SWPF. Mr. Hansen stated that the SWPF project is under a contract that was awarded in 2002 with additional direction in January 2004. Parsons has spent about \$100 million for project design and has about 260 engineers and other personnel on staff in Aiken working on final design. He added that the risk is about the funding required to proceed. DOE has asked Congress for funding for design and construction in the FY2007 budget, but Congress may revert back to FY2006 funding levels which do not include construction monies for the SWPF. If Parsons has to operate under FY2006 funding levels, construction will not proceed as planned. However, staff can continue to work on final design with funding that is projected from 2006 and from 2007.

CAB Member Joe Ortaldo commented that the SWPF is absolutely necessary to close out the tanks, to process the salt. The risk is if the SWPF isn't funded, and design, construction, and start up in 2011 don't occur, there is a high risk that closing the tanks will be delayed, impacting the FFA schedule that we're working under.

CAB Chair Karen Patterson asked that two items to be added to the agenda at the meeting of the Waste Management Committee on February 20: Parsons' risk management plan and risk mitigation strategies, and the impact of the FY2007 budget on the SWPF, if known by then.

One member commented that the start up date for SWPF is like a little mouse in a room with four hungry cats: the DNFSB issues, the CR for construction for FY2007, the CR for design for FY2007, and the question of CD-2 baseline approval at DOE. Her question was that if funding for design and construction in FY2007 is delayed, to what extent will additional funding in later years help the project?

Mr. Hansen explained that the final design is critical path, and construction is critical path. He made it clear that Parsons does not intend to do any piece of construction until design of the work is 100% complete. He added that that doesn't mean that the final design has to be complete before starting construction. For instance, you can excavate the hole in the ground, lay utilities, etc.. The DNFSB issue is sensitive because of the question of whether or not the geotechnical work supports the design. Parsons has already assumed the design. If an earthquake happens, there will be x amount of settlement in the soil; therefore, the structure needs to be able to handle that settlement. Parsons' position is that it is safe to proceed with design recognizing that the final geotechnical analysis hasn't been done. The DNFSB's concern is whether or not the design is sufficiently conservative. The Board is questioning proceeding with final design until we know how exactly how much settlement will occur. Parson's position is that it is safe to proceed, that that risk has been factored into our risk plan, and that we have a mitigation strategy for that. If there is a delay in final design, it will be critical path to delivering design work to support construction, and given that this is a tight schedule already, we would expect the delays to have an impact.

CAB Member Ortaldo asked about current schedules and if they are based on 40-hour week design and construction Mr. Hansen replied that on construction, Parsons had been working two shifts per day, 48 hours per shift, eight hours of planned overtime each week for each of those two shifts. For design, Parsons had been working a 50-hour work week until January 2, and more overtime is planned if funding becomes available. However, he cautioned, running a standard 50-hour shift for design is not necessarily the best way to go, so he was not sure how much impact they'll have from that at the end of the day.

CAB Member Ortaldo went on to ask if a cushion of time exists if qualified people and more money were available. Mr. Hansen replied that if more money were available, they could be performing more work. He could hire additional people and use judicious overtime.

CAB Member Lawless responded to comments by CAB Members Jayaraman and Mackey. He observed that the 2011 startup date of the SWPF is written into the DHEC permit. He agreed with CAB Member Mackey that perhaps the SWPF is not the top priority that it should be. He observed that the ARP and the MCU are going "full speed ahead," and yet, they will be able to handle only 2 million gallons, whereas the SWPF will be able to handle 75 million gallons. This is the reason the SWPF is in the DHEC permit and not the ARP nor the MCU. He also pointed out that the DWPF has slowed down significantly because of greater amounts of aluminum than planned which have slowed down the production of vitrified canisters of high level waste. CAB Member Lawless asked two questions: Could funding be freed up from the DWPF and used for the SWPF since the DWPF is not operating at as high a rate as in the past? Could DOE shut down the ARP and the MCU, since they don't have as high a priority as the SWPF and cannibalize funds to complete the SWPF?

To answer, Mr. Spader replied that DOE does not have absolute free rein in distributing money, and that Congress sets those limits, and each budget is specific to that. DOE does not know what that flexibility will be. He said the impact of aluminum on the production rate at DWPF has an almost negligible impact on the cost of running the facility on an annual basis. The facility runs 24 hours a day, seven days a week, and is fully staffed, so there really is no money to be gained there. Acknowledging that he is not an expert, he said that when looking at the waste system, it is difficult to consider one element in and of itself. DWPF production is tied to waste removal and feed preparation. The ability to move waste around is tied to the ability to remove salt and gain tank space. It is difficult to back off in one area to help in another without jeopardizing the entire plan. He suggested that it would be worth revisiting the whole system plan for Liquid Waste.

CAB Member Lawless asked for a copy of the system plan for Liquid Waste when DOE revises it.

CAB Member Mary Drye asked if DOE must wait for the new budget, or if the Department can use contingency money now, if there is any? Mr. Spader replied by saying that DOE must ensure that it doesn't spend at a rate that would cause it to get into anti-deficient spending. DOE cannot spend more money during the year than what it was authorized to spend. DOE only has knowledge of its budget through mid-February under the existing CR. He reiterated that the rate of spending is strictly tied to the CR and language specific to it.

The Technical Advisor asked if we miss a window of opportunity for funding now, is he correct in assuming that in future years, when there is more funding, it won't be enough to make up for the delays created by a lack of funding now. Mr. Hansen said that that is correct, that it won't help to "throw money" at the project later because construction is currently scheduled for three years at two shifts per 48 hours. You can't make up much time in a construction schedule of three years. The testing and commissioning schedule is achievable but it is tight,

The Technical Advisor added that if the SRS CAB wanted to develop recommendations on funding at the March CAB meeting, the members needed to work at the February Waste Management Committee meeting to have something ready, that time was short. The Facilitator agreed.

CAB Member Arthur Dombay thanked Mr. Hansen for doing a good job as the "pinch hitter" and asked if the computer software program, GT Strudel, that Parsons uses is validated and verified. Mr. Hansen replied that yes, it has been validated, and that at the January 12 meeting with the DNFSB, Parsons reported that they had identified the problem with that program, a program that is issued by Georgia Tech and used nationally, and that although they had had problems internally with their validated process, those problems had been fixed. Parsons had examined every piece of software used in the design and convinced the DNFSB that they had addressed the specific and generic problems.

CAB Member Mackey asked if it would be possible for Parsons to show the SRS CAB the critical path, with regard to project schedule at the ? Mr. Hansen replied that the baseline is still under review and has not been officially approved. DOE would have to release it as being in review. Parsons could talk about it in general terms. Design, he said, is critical path, and Parsons plans to finish the design in February, 2008.

CAB Member Mackey then asked Mr. Spader that since flat funding would impact the design schedule, would it be possible to move construction money in FY2007 to fund the design stage? Money could then be inserted into the FY2008 budget for construction. Mr. Spader wouldn't speculate about this possibility, but he did acknowledge that DOE has tools, such as reprogramming, that require approval by Congress. But, before using those tools, DOE would need to understand the situation to determine which tools to use, assuming that tools remain in the tool kit.

Member of the public, Glenn Carroll, asked if DOE and Parsons had thought about the impact of the delays on the waste itself, that more waste is being generated when we're having trouble dealing with current waste. Mr. Hansen deferred to DOE.

A general discussion ensued about the timing of the response to the DNFSB and the resolution of the issues, possibly the second week of February. The question was asked of Mr. Spader if resolution would be achieved by then, and Mr. Spader replied that the DOE response would be done by then. Mr. Hansen stated that a strong path forward would be identified by then, but that all the concerns would not be resolved. He announced that Parsons has hired Dr. Tom Burns, former DNFSB liaison at SRS, to lead the activity to resolve the issues with the DNFSB. Mr. Hansen said that Parson was constructing a positive response as DOE has asked it to do.

CAB Member Lawless asked to invite the DNFSB to attend the February Waste Management Committee meeting. CAB Member Ortaldo said that he would try.

CAB Member Ortaldo was given the floor again and commented that he liked CAB Member Lawless' idea about shifting monies around, and that he also liked Mr. Spader's answer, that we have to look at the whole system. We have to remember, he continued, that even though they're not handling a large quantity of material, the ARP and the MCU are handling materials at a critical time, and if we do anything to impact the space that the ARP and the MCU free up, we could be in trouble in two areas: feed preparation for SWPF when it starts up and continued operation of the DWPF over the next three years. He cautioned that we need to be very careful about shifting monies around near-term.

CAB Member Ortaldo concluded by informing attendees that Sheron Smith, DOE Federal Technical Coordinator of the SRS CAB, had a few copies of the DNFSB letter available, and he asked Gerri Flemming, DOE Lead Federal Coordinator of the SRS CAB, and Ms. Smith if they could start to make arrangements for the SRS CAB to take a tour of the Barnwell facility as offered by Mr. Hansen.

**Facilities Disposition & Site Remediation Committee** – Mary Drye, Chair

CAB Member Drye acknowledged Helen Belencan, DOE D&D Project Director, who made a presentation at the committee meeting on January 9, 2007, and gave a project update on deactivation and decommissioning. CAB Member Drye encouraged attendees to submit questions to be addressed at the full CAB meeting. She then reported that she went to the T Area Closing and passed around a plaque with information about the closing. She expressed pride about being a part of the event. She then concluded by saying that a full presentation would be made at the full CAB meeting the next day.

**Strategic & Legacy Management Committee**, Jimmy Mackey, Chair

CAB Member Mackey said he would give updates at the full CAB meeting the next day.

**Public Comments**

Mr. Mel Galen, a member of the public and NCAR representative, informed attendees about an April conference in Savannah, Georgia. The conference, *A Prescription for Security, Policy, and Research*, will be held at the Trade and Convention Center and will bring together people from all sectors to discuss issues of national importance as they relate to energy. Conference hosts are Georgia Tech and SRNL. He urged attendees to contact him by e mail at [ncargalin@aol.com](mailto:ncargalin@aol.com) and if anyone needed a discount to attend he would facilitate.

Member of the public, Bill Willoughby, pointed out that because the Federal Advisory Committee Act states that the CAB can only consider DOE-referred topics of interest, he has a concern that this will "hamstring" the CAB's efforts to investigate issues of concern, such as safety, at SRS. He encouraged attendees that if they share his concern, they should contact their Congressional representatives.

The Facilitator asked if there were any other potential CAB Board candidates who wanted to introduce themselves. Member of the public and CAB Board candidate, Charles Pair, introduced himself and made a public comment about the problems with funding for the SWPF. He stated that problems with salt waste are 20 years old, and now everything is in place to deal with it: design and construction schedule, competent contractor, startup date agreed upon by DOE and DHEC. All that is lacking is funding. He asks the question, "What can we do as the public, with input from the CAB, to help with insufficient funding?"

CAB Member Mackey informed the CAB that his name has been submitted to Washington to sit on the Region II Service Selection Board for the State of South Carolina, one of five people.

The Facilitator reminded everyone to mark their handouts up and give them to Technical Advisor Mcleod. He also reminded everyone to give their input on topics of interest to the committee chairs, and that that was needed by the end of the month.

The meeting was adjourned at 3:44 p.m.

## Tuesday, January 23, 2007, Full CAB Meeting

### Attendees:

#### SRS CAB Members

Meryl Alalof  
Donna Antonucci  
Manuel Bettencourt  
Leon Chavous  
Gerald Devitt  
Art Domy  
Mary Drye  
Mercredi Giles  
Cynthia Gilliard-Hill  
Judith Greene-McLeod  
Kuppuswamy Jayaraman  
Ranowul Jzar

#### Stakeholders

Bill Adams  
Glenn Carroll  
Mel P. Galin  
Stan Howard  
Tedda Howard  
Charles Pair  
Jack Roberts  
Sarah Skigen  
Janet Wedlick  
Joe Whetstone  
Bill Willoughby  
Gary Zimmerman

Bill Lawless  
Wendell Lyon  
Jimmy Mackey  
Madeleine Marshall  
Robert Meisenheimer  
Joe Ortaldo  
Karen Patterson  
Barbara M. Paul  
Wade Waters  
Alex Williams  
Gloria Williams-Way

#### Regulators

Bob Adams, SCDHEC  
Jim Brownlow, SCDHEC  
Chuck Gorman, SCDHEC  
Don Siron, SCDHEC  
Butch Younginer, SCDHEC

#### Agency Liaisons

Yvette Collazo, DOE  
William Spader, DOE  
Albert Frazier, GDNR  
Robert Pope, EPA  
Shelly Sherritt, SCDHEC  
Dawn Taylor, EPA

#### DOE/Contractors

Jeffrey Allison, DOE  
Richard Arkin, NNSA  
Helen Belencan, DOE  
Palmer Bowen, Forest Service - SR  
Rebecca Craft, DOE  
Robert Edwards, DOE  
Gerri Flemming, DOE  
Jenny Freeman, V3  
Dawn Gillas, DOE  
Doug Hintz, DOE  
Larry Ling, DOE  
Rick McLeod, V3  
Mindy Mets, V3  
Jim Moore, WSRC  
Mike Schoener, MAS  
Sheron Smith, DOE

Citizens Advisory Board (CAB) Chair Karen Patterson opened the meeting and asked Leon Chavous to lead the Pledge of Allegiance. Mike Schoener served as Facilitator, and Rick McLeod was present as the CAB's Technical Advisor. The meeting was open to the public and posted in the *Federal Register* in accordance with the Federal Advisory Committee Act.

The Facilitator went over the agenda and announced that Rick Arkin from the National Nuclear Security Administration (NNSA) was present and would give an NNSA update at the May CAB meeting.

CAB Chair Patterson introduced Jeffrey Allison, Manager, Department of Energy (DOE) Savannah River Site (SRS). Mr. Allison expressed DOE's and his appreciation to the four members of the CAB who were rotating off the CAB. He read a statement which was expressed on each letter:

"On behalf of the U.S. Department of Energy, I extend my appreciation to you for your contributions over the years as a member of the Savannah River Site Citizens Advisory Board, as well as your service at the committee level. We believe the success of the CAB is a direct reflection of the commitment of its members and we consider the CAB to be an integral component of the decision-making process at SRS."

Mr. Allison then gave each departing CAB Member, Meryl Alalof, Gerald Devitt, Bill Lawless, Jimmy Mackey, a Certificate of Appreciation.

#### Approval of the Minutes

The meeting minutes of November 13-14, 2006, were approved with no changes.

### Public Comments

Member of the public and CAB candidate, Stan Howard, introduced himself.

### Agency Updates

#### Georgia Department of Natural Resources (GA DNR)

Al Frazier, GA DNR, reported that the Governor's proposed budget for the GA DNR is good, particularly in terms of allocating funding for three trust funds: the Hazardous Waste Trust Fund, the ENS Trust Fund, and the Solid Waste Trust Fund. The budget also contains allocations for additional employees to work on watershed protection and to monitor Southern Nuclear Company's nuclear plants in Georgia and Alabama. Mr. Frazier hopes to hire up to five additional employees who would be placed in district offices closer to the nuclear facilities. He told about CNN's call to the environmental radiation laboratory, asking that if a polonium poisoning occurred in the United States, would we be able to run an effective analysis. The answer was no, so the laboratory developed preliminary protocol for polonium and is running preliminary tests.

#### South Carolina Department of Health and Environmental Control (SCDHEC)

Shelly Sherritt, SCDHEC, thanked the outgoing CAB Members and gave an update on two issues related to High Level Waste (HLW).

1. SCDHEC expects to make a permit decision on the saltstone disposal facility sometime this week, maybe today, and finalize it.
2. In consultation on Sect. 3116 2005 Natural Defense Authorization Act that allows residues from HLW to be carved out of the definition and disposed in South Carolina, DHEC is continuing to work with DOE and the Nuclear Regulatory Commission (NRC) to refine and enhance the process to meet the requirements of the various agencies and still enable DOE to close the HLW tanks on time and in accordance with schedules included in the Federal Facilities Act (FFA).

Ms. Sherritt introduced Don Siron, a new manager who is taking Chuck Gorman's place. Mr. Siron has over 10 years of experience with DHEC, working primarily in DHEC's program that is equivalent to the cleanup program at SRS. She also expressed her pleasure about having two DHEC presenters on the agenda: Jim Brownlow to report on the environmental monitoring program on the SRS, and Butch Younginer to report on fish advisories based on data collected throughout the state.

#### Environmental Protection Agency (EPA Region IV)

Dawn Taylor, EPA, thanked outgoing CAB Members and reported that the Continuing Resolution (CR) is impacting EPA as well as DOE. EPA is working under the Fiscal Year (FY) 2006 budget, and they will know more about the budget by mid-February. She reported that EPA has undergone reorganization, dividing a large division into two: RCRA and Superfund. The Federal Facilities Program will report through the Superfund Division, but will continue to cover RCRA issues. So, while the line of management has changed, very little else has. Ms. Taylor expressed pleasure about the completion of T Area at the end of November 2006, the first of 14 areas to be completed under the Accelerated Cleanup Plan. She said that P Area and M Area are on their way to completion, with a Record of Decision (ROD) about to be signed for part of M Area. Removal action work is going on in M Area, and work is underway in R Area.

#### Department of Energy

DOE SRS Deputy Manager and Deputy Designated Federal Official (DDFO), William Spader, said that he would keep the CAB informed about the Federal budget since Congress will make a decision about it sometime in mid-February. He commented about the permit for the industrial solid waste landfill mentioned by Ms. Sherritt. He said that while the permitting process had been long, it had been an open process and he thought people had participated in it with solution-oriented perspectives.

Mr. Spader reviewed the Defense Nuclear Facility Safety Board (DNFSB)'s letter about seismic design issues related to the Salt Waste Processing Facility (SWPF). DOE received the letter on January 10 and is working with Parsons to resolve the issues in a timely way. He noted that DOE had already identified the issues outlined in the letter through its independent technical review team. The team was chartered with looking at the SWPF design and indicated that the issues could be resolved during final design which is currently underway. Mr. Spader told the CAB that he would keep its members informed as DOE and Parsons resolve the issues.

Mr. Spader reported that DOE had participated in an event to celebrate the arrival of used computers at the New Ellenton Civic Center in support of the Rural Technical Network. The Network is sponsored by DOE and EPA Region IV Environmental Justice. The computers represent a means of increasing public participation in DOE

issues. Mr. Spader reminded the CAB that many people in surrounding areas do not have access to the internet, so this effort is a way to help people become more involved in DOE issues.

He then announced that Yvette Collazo would be taking his place as the DDFO, but that he would remain active with the CAB through its committees.

### **Public Comments**

CAB Member Lawless asked two questions of Mr. Spader:

1. What will DOE engineers and managers do to defend its design of the SWPF?
2. Given that we've heard that the schedule for startup and operation of the SWPF has slipped from 2011 to perhaps 2013 or 2014, why should DHEC trust DOE's word that the facility will be built by 2011?

Mr. Spader replied that a year or so ago, DOE engaged in open dialogue with representatives of the State of South Carolina, DOE Headquarters, DOE SRS, the DFNSB, and the Governor's Nuclear Advisory Council Chair to bring to and keep on the table all issues, whether budget-related or technical, as they arose so that no one was surprised. Mr. Spader went on to say that these meetings helped, in his opinion, to build trust through openness. He acknowledged that the SWPF is a complex project in a highly complex system, and dialogue is the key to working together for success.

CAB Member Lawless then stated that he had originally thought that issuing the permit was the wrong action, but after talking to experts, he changed his mind and believes the DHEC permit is sound and strong. He stated his belief that DOE thinks it can negotiate its way out of fines, so he expressed the hope that DHEC is committed to protecting the public and the environment. He changed his mind about the permit, he said, because Hanford has enforceable agreements with the State of Washington, and that situation is draining funds from throughout the DOE complex, making it harder for DOE to complete projects at other sites. He now believes that DHEC must issue the permit, but if DHEC won't enforce it, it will be worthless. He asked Ms. Sherritt to comment.

Ms. Sherritt agreed with Mr. Spader's comments about building trust through open discussion. In terms of the permit, she said, although the decision is not final, it does contain a startup date of 2011 for the SWPF. She acknowledged that nothing helps Federal Facilities obtain funding like an enforceable date, and the permit places the SWPF at a higher priority to obtain funding. The permit instructs DOE to use all available means to request funding. The permit recognizes that if Congress does not appropriate the requested funding, DOE is not at fault. The permit decision contains key points to keep pressure applied appropriately, and, she ended, DHEC takes all enforcement measures to heart and takes appropriate measures.

CAB Chair Patterson asked Mr. Spader if the permit were decided this week, what would be the start date for the MCU and ARP. He replied that it would be September 30, 2007

CAB Member Lawless asked Ms. Sherritt to explain the appeals process. She said that once the final decision is out, any person or group has 15 days in which to file an appeal. The Board will decide during 30 days after that whether or not to hear the appeal. The Board then has 60 days to hear and decide the course. After that, there is another opportunity for appeal that goes to a separate law court.

CAB Member Joe Ortaldo commented that during his two-year tenure on the CAB, three things keep coming up: trust, communication, and money. Relative to CAB involvement with the budget process, he encouraged DOE to keep the CAB informed, avoiding surprises at the last minute, and he asked DOE to keep working on resolutions that the CAB has relative to working on the budget.

CAB Member Barbara Paul asked Ms. Sherritt to clarify that once the permit is issued, there is concern that there will be an appeal. She said that she thought that DHEC and DOE had worked out all the issues to avoid such an appeal. Ms. Sherritt said that DHEC and DOE had agreed that specific conditions in the permit would not be appealed by DOE. She was referring to an appeal filed by a third party. That appeal would be valid, depending on standing and would have to be worked through the process.

CAB Co-Chair Donna Antonucci asked if concrete removal from M Area would create air pollution. Mr. Spader answered that any job on site, once the scope of work is defined, has to analyze the hazards associated with the work, then institute appropriate controls to ensure worker safety and protection of the public and the environment.

CAB Member Art Domby asked Ms. Sherritt if there is an appeal, does the Review Board have the option of making an immediate effective decision while the review process is ongoing. Ms. Sherritt did not think so, but she said that the Board did have the option of deciding not to hear an appeal, effectively ending the appeal.

CAB Member Ranowul Jzar commended DOE for the new computers being distributed in rural areas, and she pointed out that already existing technology centers in SRS communities need new computers. She asked DOE to review the agreements with those centers so they can be eligible for computer upgrades.

CAB Member Bob Meisenheimer commented that the DHEC Review Board could, in terms of a possible appeal, decide it had heard enough and was moving forward with the permit. Mr. Meisenheimer asked Ms. Sherritt to think about whether or not it would be helpful for the CAB to make a motion to support DHEC in taking such a stand.

### Chair Update

CAB Chair Patterson made two comments, the first about her concern about losing institutional knowledge with outgoing CAB members. A formal proposal will be made to DOE about ways to retain or use retiring CAB members because of the value of institutional memory. She encouraged other CAB members to share ideas about this issue with CAB Members Ortaldo, Antonucci, and Marshall. CAB Chair Patterson's second comment referred to the bi-annual CAB chairs meeting at the Nevada Test Site. She intended to present as the SRS CAB's big topics the SWPF, plutonium disposition, and the liquid waste system. She encouraged CAB members to share other ideas with her.

### Facilitator Update

Mike Schoener, CAB Facilitator, reminded CAB members to prioritize the topics of interest as discussed at the Combined Committee Meeting and give them to the Technical Advisor. He and the Technical Advisor will work with committee chairs in January and February to develop the 2007 Work Plan.

The Facilitator provided the Recommendation Status report indicating that six recommendations are pending, meaning they were passed by the CAB, have been sent to DOE, and either the CAB has not received a response or is still evaluating the response. Twenty-nine recommendations are open, which means they have been sent to DOE, received a response, but some items require follow-up. There are 207 closed recommendations, meaning they are not awaiting responses from agencies. Mr. Schoener told the CAB that the status report is thinner this meeting because only those recommendations that are pending, open, or closed within the last year were included. If a CAB member wanted the complete report, he had hardcover copies with him, or they could be accessed via the web. CAB members expressed concern that some action items would be closed without review, and the Facilitator said that the process would be refined at the fall process retreat.

### National Nuclear Security Administration (NNSA) Update

Rick Arkin, NNSA, provided four brief updates and promised to return to the full CAB meeting in May to give a more extended briefing.

1. Under Defense Programs, the tritium extraction system is fully operational, with tritium being successfully extracted and ready to be introduced into the stockpile. This is a major accomplishment because this capability has not existed since 1988, and it maintains the stockpile in a green state. A celebration will be held, and CAB Chair, Karen Patterson, will be invited to attend. The Continuing Resolution (CR) is also impacting NNSA, but the defense budget is stable.
2. Under Non-Proliferation, MOX is the "great unknown." Site preparation is complete in F Area, and construction of a modular office complex to hold 300 people is planned. The problem is that the Deputy Secretary has not authorized Critical Decision (CD) 2 and 3 for the start of construction pending differences being settled in the U.S. House of Representatives and the U.S. Senate. The House zeroed the MOX budget out while the Senate plussed it up. A decision is expected in a few weeks, but NNSA can do nothing until Congress acts.
3. Complex 2030 is the weapons complex of the future, and the National Environmental Protection Act (NEPA) process is underway. Seventeen public hearings were held throughout the country, two of them in N. Augusta. There will be more hearings in N. Augusta once the thousands of comments have been processed. NNSA's plan is to issue a ROD in the fall of 2008 that will include a site selection.
4. On a personal note, Ambassador Linton Brooks stepped down as NNSA Administrator. Tom D'Agostino is now the acting Administrator, and Martin Scheinbauer is Acting Deputy.

Mr. Arkin closed by giving NNSA's commitment to safety, security, and compliance.

**Strategic & Legacy Management Committee, Chaired by Jimmy Mackey**

SCDHEC Fish Advisories Advisories to the Public

Butch Younginer, Fish Consumption Advisory Coordinator, DHEC Bureau of Water

1. Contaminants that Drive or Cause Advisories in South Carolina
  - Mercury
  - PCBs
  - Pesticides

Note: Radionuclides (Cesium 137 and Strontium 90 have been found in some fish in the Savannah River; however, the more protective mercury advisories are used.

2. Fish and Shellfish are an Important Part of a Healthy Diet
  - Contain high-quality protein and other essential nutrients
  - Low in saturated fat
  - Contain omega-3 fatty acids
3. How Does Mercury Affect Human Health?
  - Exposure to high levels of metallic, inorganic, or organic mercury can permanently damage the brain, kidneys, and developing fetus
  - Effects on brain functioning may result in irritability, shyness, tremors, changes in vision or hearing, and memory problems
4. How does Mercury Affect Children?
  - Mercury's harmful effects that may be passed from the mother to the fetus include brain damage, mental retardation, incoordination (sic), blindness, seizures, and inability to speak. Children poisoned by mercury may develop problems of their nervous and digestive systems and kidney damage.
  - Very young children are more sensitive to mercury than adults. Mercury in the mother's body passes to the fetus and may accumulate there. It can also pass to a nursing infant through breast milk. However, the benefits of breast feeding may be greater than the possible adverse effects of mercury in breast milk.
5. Sources of Mercury
  - 0.9% - miscellaneous sources (geothermal power)
  - 2.2% - Area sources (lamp breakage, landfills, dental preparation)
  - 10.0% - Manufacturing sources (chlor-alkali, portland cement, batteries)
  - 86.9% - Combustion sources (coal-fired utility and industrial boilers)

Note: 90% of mercury found in South Carolina comes from outside the state.

6. Advisories in South Carolina – History
  - Tissue monitoring began in 1975
  - First advisory was issued in 1976 at Lake Hartwell (PCBs), Lake Jocassee (mercury)
  - Revamped tissue monitoring program – 1992 (began seeing widespread mercury contamination)
  - 2004 – New Advisory Format, DHEC and DNR cooperation
7. Samples Collected
  - Over 1800 samples per year
  - All major rivers and streams
  - All major lakes and reservoirs
  - Estuarine and off-shore species
8. What Species Are Collected?
  - Piscivorous species
  - Largemouth bass
  - Bowfin
  - Incidental fish species – sunfish, catfish, pickerel
9. Current South Carolina Advisories
  - Issued 1 April, 2006 of each year
  - 60 water bodies have advisories due to mercury
  - Lake Hartwell has an advisory for PCBs
  - Lake Conestee has an advisory for mercury and chlorodane
  - 1,747 stream miles and 228,306 lake acres under advisory
  - NO advisories in any estuary
  - Advisories for swordfish and king mackerel in coastal waters



10. Level of Advisories for Mercury
  - Unlimited consumption (<0.25 ppm)
  - 1 meal per week (0.25-0.6 ppm)
  - 1 meal per month (0.6-1.0 ppm)
  - Do Not Eat (>1.0 ppm)
  - Women of childbearing age and children are advised not to eat fish from waters with any restrictive advisory
11. Level of Advisories for PCBs
  - Unlimited consumption (0--0.05 ppm)
  - 1 meal per week (0.06-0.2 ppm)
  - 1 meal per month (0.21-1.0 ppm)
  - 6 meals a year (1.1-1.9 ppm)
  - Do Not Eat (>2.0 ppm)
  - Women of childbearing age and children are advised not to eat fish from waters with any restrictive advisory
12. Current FDA and EPA Advisories
  - Advisory targeted for women of child-bearing age, infants and children
  - Do not eat shark, swordfish, king mackerel, or tilefish because they contain high levels of mercury
  - Check local advisories about the safety of fish caught by family and friends in your local lakes, rivers, and coastal areas. If no advice is available, eat up to 6 ounces (one average meal) per week of fish you catch from local waters, but don't consume any other fish during that week.
  - Eat up to 12 ounces (2 average meals) a week of a variety of fish and shellfish that are lower in mercury.
    - Five of the most commonly eaten fish that are low in mercury are shrimp, canned light tuna, salmon, pollock, and catfish
    - Don't eat more than 6 ounces (one average meal) of albacore tuna per week.
13. Outreach
  - Over 42,000 advisory booklets distributed so far this year
    - ✓ All SCDHEC Environmental and Health offices
    - ✓ All SCDNR offices
    - ✓ All OBGYN offices
    - ✓ All county, state and federal health departments and clinics
    - ✓ All known mid-wives
    - ✓ Women, Infants and Children (WIC) program
    - ✓ All South Carolina State Parks
    - ✓ Catawba Indian Reservation
    - ✓ Congaree National Park
    - ✓ Biedler National Forest
    - ✓ SCDNR Wildlife Rules and Regulations
    - ✓ 2001 "Eating Fish from the Savannah River"
  - Advisory Information on the Web
    - ✓ [www.scdhec.gov/fish](http://www.scdhec.gov/fish)
    - ✓ [www.fda.gov](http://www.fda.gov)
    - ✓ [www.epa.gov](http://www.epa.gov)

## **Questions**

CAB Member Gloria Williams-Way asked if there had been an attempt to use organizations other than state and federal agencies to do outreach. Mr. Younginer said they had tried to engage other organizations, but had not had widespread publicity for a long time. He asked for ideas to go into an action plan that is in progress, a plan to get additional funding for outreach.

CAB Member Barbara Paul asked if seniors metabolize more slowly. Mr. Younginer said that mercury is a neuro-toxin and impacts developing nervous systems in fetuses and children more severely than in adults. She asked if studies had been performed on seniors, and when told that there had not been, suggested that there might be such studies performed. She then asked why there were no advisories in estuaries, and Mr. Younginer replied that there was no evidence of contamination in estuaries because long-lived species do not live in them. CAB Member Paul

expressed pleasure about information going out to the Catawba Reservation. She suggested using drugstores to disseminate information.

How long does it take for the body to eliminate mercury? He responded that it takes 14-21 days without another dose.

CAB Member Mary Drye asked if outreach could include high schools and colleges. Mr. Younginer said that they went to minority colleges in 2000-2001, but the effort was not effective. They did communicate with Coastal Carolina and did some research in grocery stores collecting data. DHEC doesn't have funding for outreach in the schools, not even for distribution of the booklets.

CAB Chair Patterson wondered about the threshold for cesium and strontium and asked if the threshold for damage is lower for mercury than radionuclides. Mr. Younginer said that the threshold for the radionuclides is much lower than mercury. Ms. Patterson then asked if DHEC has ever studied subsistence fishermen. The reply was that DHEC has not tried in a meaningful way to identify and locate subsistence fishermen. Only the western states with large Native American populations have studied this population, tribes dependent on fishing.

CAB Member Ortaldo asked if trends are going up or down. Mr. Younginer said that after many years of no advisories in South Carolina for mercury (1975-1987), they began monitoring more heavily after North Carolina found widespread mercury problems in 1991-92. After that, every area of water along the South Coastal Plain was put under advisory. Consumption began to decrease, too. Now the trends of increasing advisories and decreasing consumption have leveled out so there are no increases or decreases. The new air regulations just issued by DHEC should impact mercury levels, resulting in decreasing trends.

CAB Member Mercredi Giles asked if a partnership exists with the State of Georgia. She mentioned graduate students at Savannah State University (SSU) and the National Oceanic and Atmospheric Agency (NOAA) laboratory who are performing studies on subsistence fishing. Mr. Younginer replied that DHEC shares data annually with the State of Georgia before issuing advisories, and that some waters are sampled by both states. He was aware of the SSU students' data and said that the State of Georgia had just issued an advisory for the lower Savannah River for striped bass. Ms. Giles asked if contaminants were ever found in shellfish, and Mr. Younginer said DHEC had to close shellfish beds for bacteria only, not heavy metal or PCB contamination. They've never found mercury levels in shellfish.

CAB Member Mackey commented that he has information at his house about subsistence fisheries and data from prior work by the CAB found in Recommendation 107.

### **SCDHEC SRS Environmental Surveillance Oversight Program 2005 Data Summary**

Jim Brownlow, SCDHEC, EQC

1. Program Background
  - Started in 1995 as AIP with DOE
  - Included in Remediation and Environmental Monitoring Grant
  - Similar to programs in other states
  - Complements other SDCHEC programs
  - Non-regulatory in nature
  - Provides independent source of information on releases to environment from SRS activities
2. Program Goals
  - Monitor pathways for human exposure
  - Conduct sampling and analyses of primary contaminants
  - Compare results with SRS
  - Summarize findings and make recommendations to SRS
  - Provide reports to the public on findings.
3. Media Monitored
  - Air particulates, atmospheric moisture, precipitation
  - Groundwater-rad and non-rad constituents
  - Surface water-rad and non-rad constituents
  - Drinking water-rad constituents
  - Game-deer, fish, feral hogs-rad constituents
  - Milk-rad Soils and sediments-rad and non-rad constituents

- Vegetation-edible and non-edible-rad constituents
- 4. Monitoring Frequencies (frequency is determined by the level of concern, so the focus is on air and water)
  - Air-weekly, monthly, annual
  - Groundwater – annual
  - Non-rad surface water – monthly, quarterly, annual
  - Soils-quarterly/sediments – annual
  - Drinking water- monthly, bi-annual
  - Vegetation – quarterly, seasonal
  - Fish-seasonal/Game – annual
  - Milk – quarterly
  - Rad surface water – 3 times a week, weekly, monthly
- 5. Summary-2005 Data
  - Over 5000 samples collected, 26,000 analyses performed
  - No surprises for 2005
  - Releases detected from SRS-at very low levels
  - Tritium continues as largest release constituent, and comes from many different sources
  - DHEC results are similar to SRS reported results
  - Trends show decreases

CAB Member Mackey provided the CAB members with an update, including his earlier meeting with Mr. Allison:

- Budget - Nothing will be known until after the second week of February when Congress should make a decision about the Continuing Resolution, (CR), but the CAB needs to be aware of the roll-out of the FY2008 budget. Mr. Mackey asked that the CAB be briefed quarterly on any budget issues that pertain to major projects.
- Repatriation of Human Remains – The hope is that satisfactory action will be taken soon.
- Land Use – There is a document on land use that went to DOE Headquarters a year and a half ago, and Mr. Mackey urged the CAB to be aware of it. He asked Mr. Allison to retrieve it from Headquarters as soon as possible.
- EM Monitoring Report – Mr. Allison told Mr. Mackey that the Environmental Management Monitoring Report would continue.
- Historic Preservation – This is ongoing, but funding is incomplete for the building. CAB Member Mr. Waters will continue his efforts with historic preservation. A report came out in December about historic preservation, and Mr. Mackey suggested that CAB members should get a copy.
- EM Communication Plan – There is an EM communication plan, put out by the EM Advisory Board (EMAB) with two major recommendations that pertain to stakeholders, with specific reference to CABs becoming involved in the budget process at the earliest possible time. Mr. Mackey has a copy of the plan and urged CAB members to read it.
- State of EM – On November 29-30, 2006, at the National Governor’s Association Center for Best Practices, major stakeholders participated in a meeting and discussed issues that pertain to EM. DOE Assistant Secretary for EM, Jim Rispoli, talked about the state of the EM Program, and he noted that cleanup is characterized by political issues and said that the closure of T Area was good. EM will not go away after cleanup, and is seen as having an enduring mission. Christine Gelles (DOE) gave an overview on waste disposition; her office was expanded to include TRU. Also, a representative from DOE gave an overview of WIMS (waste information management system). A panel reported that EM is working with NNSA to define issues at NNSA sites. An advanced draft on the national waste disposition strategy has been issued, a living document that is updated annually. Mark Frei (DOE) outlined budget priorities and reported that under the CR, some sites will receive more money than proposed in the FY2007 budget. SRS might come out ahead.
- Ex-Officio Position – A proposal has been made to create an ex-officio position on the CAB, and Mr. Allison will investigate a position that the CAB once had, a legislative position, that would give precedence to this proposed position.
- EA for A Area – Mr. Mackey requested that the CAB be given a copy of the Environmental Assessment for A Area.

CAB Member Paul gave an overview of the repatriation of human remains issues. SRS unearthed remains years ago when the plant was built. No federally-recognized tribe will claim the bones, and the state tribes are not allowed to reclaim ancestors. Ms. Paul and the State Archaeologist met with the Catawba Nation, an eastern tribe, and asked

them to take the remains anyway, but the issue is very political. At a meeting in February of the eastern tribes, the Catawba Nation will present a plan to take the remains as well as 300 boxes of remains in South Carolina museums.

### **Public Comments**

Member of the public, Glenn Carroll, Nuclear Watch South, asked that a future briefing on MOX give details about waste plans for the facility. She also commented that she appreciated the CAB's interest in and questioning of the high-level salt waste issue. She has been involved with this issue for 20 years and has seen very little progress. Nuclear Watch South is seeking an advocacy position to support the emptying of the tanks. She made another comment that the vitrification resolution she talked about yesterday be circulated (it was included in CAB members' handout packets), and she expressed concern that waste management is urgent and a technological frontier, but that we fight for money for projects that produce waste. She suggested a way to meet the waste challenge: a "De-Manhattan Project" effort that puts the finest minds to the problem.

Member of the public, Joe Whetstone, thanked the CAB for making public participation easy. He asked the CAB if its members were aware that California has the same standard (20,000 pc/L) for drinking water as South Carolina, but that the California public health goal is 400 pc/L. He asked to whom he could send information and the California web link for distribution. Gerri Flemming (DOE) gave Mr. Whetstone her e mail address. He then asked questions about radioactive fuel rods coming back to the United States. He said he had asked DOE officials for information, most recently, Public Affairs Official, Jim Giusti, but had received no answers to questions about fuel rods returning from Australia assembled in the United States. He wants to know into which port they will come, what disposition path they will take, and whether or not they will be reprocessed. CAB Chair Patterson asked Rebecca Craft (DOE) if she could respond, and she stated that she was aware of his questions but that she knew that Mr. Giusti's response had been that DOE cannot comment on incoming fuel. She said she would investigate the matter.

CAB Member Meisenheimer thanked and acknowledged Ms. Carroll's comments. He was encouraged by her desire to see waste problems solved and asked her to support the DHEC permit for the SWPF as a way to get the job done. He said that DHEC has tried hard, with the CAB's support, to reach an equitable solution that will satisfy all.

CAB Member Meryl Alalof, stated that her tenure on the CAB has been a great experience, and she has had the opportunity to learn from bright scientists. She advises the new CAB members to focus on the primary goals of the CAB and realize that even common people have a role to play. She left an acronym with the CAB, one that she made up: EPA – education, participation, awareness.

CAB Member Bill Lawless commented that the CAB's job is to hold DOE accountable, and that by restructuring the CAB, it was no longer possible to have free access to information to help the CAB advise DOE. SRS is an asset to the states of South Carolina and Georgia, and the location of the Hanford site in the Northwest has made it difficult for that site to participate in future missions. The CAB's job is two-fold: to hold DOE accountable so it continues to do a good job so the public will continue to support DOE SRS. There is a conflict, he said, in holding DOE accountable but keeping DOE SRS an asset for the future.

The CAB adjourned for lunch.

### **Nuclear Materials Committee, Manuel Bettencourt, Chair**

CAB Member Bettencourt announced that they had invited Charles Anderson, Deputy Assistant Secretary of Energy for EM, to the March CAB meeting to give an update.

CAB Member Greene read the plutonium vitrification draft motion, and the floor was opened for discussion. Some wording modifications were made. CAB Member Lawless moved that the recommendation be approved and accepted, and CAB Member Gerald Devitt seconded the motion. CAB Member Dombly noted that the proposed recommendation demonstrates that the vitrification facility funding and schedule are vitally important to SRS. CAB Member Antonucci thought that the deadlines included in the proposed recommendation were important, and Technical Advisor McLeod gave credit to DOE for coming to the CAB early with the idea.

CAB Member Mackey suggested eliminating the word "preliminary" from Item #2, and Mr. Bettencourt made a motion to that effect. CAB Member Ortaldo seconded the motion which was unanimously approved.

CAB Chair Patterson then asked the CAB to vote to accept the recommendation, which was done, again, unanimously. The draft motion was approved by the CAB unanimously, with 23 voting in favor, and no abstentions. Thus, the draft motion became CAB Recommendation #243.

**Waste Management Committee, Bob Meisenheimer, Chair**

CAB Member Meisenheimer gave an update on what the Waste Management Committee has learned regarding the ongoing discussion/exchange of positions between DOE and the DNFSB. He said that the CAB had undoubtedly read the January 10, 2007, DNFSB letter to DOE Assistant Secretary Rispoli regarding design issues with the SWPF, and that CAB members had probably drawn their own conclusions about the tone and message of the letter. His initial reaction was that the wording was critical of the design effort to date and pessimistic about the ability of DOE to meet agreed-to technical standards and, consequently, budgetary and timeline schedules for the construction of the SWPF.

Mr. Meisenheimer noted that the Waste Management Committee held a meeting last Wednesday (January 17, 2007) to hear DOE's side of the issue. Mr. Meisenheimer acknowledged and thanked Larry Ling and Terry Spears (DOE) for their timely response. At the meeting, an insightful briefing revealed that DOE was not surprised by the contents of the letter and had reached the same conclusions in its independent technical review. Moreover, the DNFSB had participated in that review, and that everything stated in the letter was known by DOE, except the statement that read, "The DNFSB is not aware of any action being taken to resolve these issues."

Actually, according to DOE, much is underway to resolve the issues, and that corrective action is being taken. Furthermore, there is time to correct them, consistent with DOE's review process. The DOE independent review team had reached the same conclusion about the seismic issue and a less than satisfactory geotechnical review of the soil and geology, but they were not considered impediments to the project because there is enough time to do it to revise the geotechnical review and get it right. DOE has 30 days to respond to points in the letter, and DOE will share its response to the February 20 meeting of the Waste Management Committee. Mr. Meisenheimer asked Larry Ling (DOE) to comment. Mr. Ling agreed with the accuracy of Mr. Meisenheimer's representation.

In concluding his committee update, Mr. Meisenheimer said that for almost a year, the Waste Management Committee advocated that DOE oppose the DNFSB recommendation to elevate or upgrade the earthquake safety criteria to the PC-3 level. The committee wrote Mr. Rispoli a letter asking that DOE oppose the standard, but DOE decided in favor, thus delaying the schedule by two years.

**Questions**

CAB Member Mackey asked why the DNFSB is so interested in seismic activity when this area is not in a seismically sensitive area.

CAB Member Meisenheimer said he couldn't answer for the DNFSB, but added in its defense that they are trying to get to a level of consistency of standard throughout the entire complex.

CAB Member Ortaldo responded that while this area isn't the most seismically active in the country, it is in the top three: California, New Madrid Fault, the old Charleston earthquake.

CAB Member Lawless pointed out that the DNFSB is looking only at the SWPF and has not examined the waste system in its entirety, ignoring the problem of the 50-year old tanks. Already, he said, \$1 billion in lifecycle costs have been added, along with a two-year delay. Mr. Lawless considers this approach negligent. If an earthquake hit the area today and one of the old tanks ruptured, that negligence would turn into criminal activity, according to Mr. Lawless. It was clear that the DNFSB was intent on making the SWPF the safest facility on the site, and Mr. Lawless said that the Board was just doing its job and asking good questions. Now, it is up to DOE to defend its engineers and prove to the DNFSB that the design of the facility is safe.

CAB Member Mackey said that the DNFSB had caused a two-year delay in D&D, and it shouldn't be given *carte blanche* because it asks engineering questions that are counter to other engineering designs.

CAB Member Domby asked if the Waste Management Committee would communicate with the DNFSB before the February 20 meeting. CAB Member Meisenheimer responded that the key issue would be DOE's response, so it makes more sense to see that response before communicating with the DNFSB.

CAB Member Ortaldo, acting as the Waste Management Committee co-Chair, invited CAB members to attend the February 20 Waste Management Committee meeting at 5:00 p.m., in the Aiken Municipal Center. The committee has asked DOE to invite a DNFSB representative to attend the meeting to address the report. He said that there should be a response by the date of the meeting since DOE has been given 30 days to respond. Depending on the results of the DOE response, the CAB might want to send its own letter to the DNFSB.

CAB Chair Patterson said that she's not sure that the DNFSB knows the CAB's position of system-wide risk, the risk of the HLW tanks rupturing, for instance. She thinks the DNFSB needs to understand that the people who live around the SRS have a different view of this issue.

CAB Member Meisenheimer reminded the CAB that in 2005, the Waste Management Committee held a meeting attended by representatives of the DNFSB, DOE, and Parsons, at which just such a viewpoint was relayed. We don't have an issue yet with the DNFSB; we want a safe facility. The issue is whether the DNFSB is going to raise stumbling blocks to on-schedule construction that will incur additional costs. Everyone is against a delayed schedule.

CAB Member Madeleine Marshall asked if there were an expectation that the design might be fined, and that this is a call for supporting analysis for the criteria for the PC-3 standard.

CAB Member Lawless said there were three issues:

- Potential modeling errors
- Incorrect soils data analysis
- Inadequate review and analysis by DOE's independent review team

He had heard that DOE believes it can answer each of the questions in the letter, and that the last time this happened, a two-year delay and an additional \$1 billion resulted.

Technical Advisor McLeod added that the DNFSB was concerned that construction of the facility had started before completion of the soil surveys, and CAB Member Ortaldo added that the surveys had been done over the last few years, so the odds are that the issues would be resolved. However, he cautioned, we don't know yet.

CAB Member Lawless said that it was disconcerting that the DNFSB had representatives on the review team, and still the letter came out. He opined that there is a disconnect somewhere.

CAB Member Ortaldo encouraged everyone to read the letter, which, and he agreed with CAB Member Meisenheimer, was very negative. The important thing, he said, is to resolve the issues quickly.

### **Facilities Disposition & Site Remediation Committee, Mary Drye, Chair**

#### **Status of Facilities Disposition, Update by Helen Belencan, DOE Project Director for Deactivation and Decommissioning(D&D) Project**

##### 1. D&D Project Overview for 2007

- Enormous amount of D&D in past three years because there was an abundance of excess facilities
- Pace has changed because those facilities are almost gone
- Focus is now on being in lock-step with the soil and groundwater cleanup program
- Common goal: Area completion. DOE approaches Area completion by dealing with entire areas.

##### 2. Recent Accomplishments

- Completed decommissioning of the Waste demonstration Incinerator (the Beta-Gamma Incinerator)

NOTE: DOE performs a hazards analysis for all work, the primary focus of which is dealing with worker safety. DOE approaches each task only after a hazards analysis. There are a lot of small tasks involved in the entire process, but they observe and analyze hazards throughout the entire process.

##### 3. Significant Ongoing D&D Work

- 211-F Canyon Auxiliaries
  - Deactivation ongoing (recycling of some equipment: tanks, pumps, circuit boards)
  - Several pieces of equipment have been removed for reuse
- 221-1 FA Line

- Action memo issued 5/06
- Cold and dark complete 207
- Decommissioning postponed and resources will be to P Area completion

1. Waste Disposal Volumes through November 30, 2006

Note: Ms. Belencan wanted to address costs of waste disposal because she was unable to provide these costs when she gave a presentation to the Waste Management Committee in November.

- Sanitary waste costs \$1.00-2.00/cu. ft.
  - LLW costs >\$2.00/cu.ft.
  - Mixed costs \$175-600/cu. ft.
  - Hazardous costs \$15-750/cu.ft.
  - PCB costs \$15-750/cu.ft
  - TRU costs \$400 – 800
2. Upcoming Work – F Area Materials Storage Facility
- Dealing with plutonium 238 makes cleanup tricky
  - Planning activities for decommissioning as a CERCLA Remedial Action is underway with a lot of public involvement
  - Scoping discussions with EPA and DHEC scheduled for March
  - Interim Action Proposed Plan to follow
  - Public comment of the Interim Action Proposed Plan will be sought
3. Recent Regulatory Agreements
- Two areas of focus: Area completion, environmental protection
  - Agreement reached with EPA and DHEC to decommission CIF under a RCRA permit as Interim Remedial Action under CERCLA instead of closure under RCRA
  - Milestones for Interim Action Proposed Plan and Interim Record of Decision deliverables will be added to FFA Appendix E
    - Milestones will be added during revision of FY2007 Appendix E (January 2007)
  - In the FFA, CIP will be listed in
    - Appendix C.5 (a sub-unit of the H-Area Operable Unit)
    - CIF is currently listed on Appendix K.1 (D&D Facilities) and will remain there

CAB Member Lawless asked if this agreement came from a recommendation from the CAB Waste Management Committee. Ms. Belencan said that the recommendation helped the transfer of the CIF from RCRA to CERCLA.

4. P Area

- Five reactor areas, operational in 1954, placed in cold standby in 1991
- Illustration shows decommissioned facilities and remediated basins in P Area

5. P Area Completion Activities

- Waste Units and Investigative Areas
  - Characterization is Complete – No Surprises
  - Review with EPA and DHEC in early March (available for discussion with CAB FD&SR Committee in April)
  - Report documenting characterization, assessment of risk, and remedial alternatives to be submitted to EPA and DHEC in September 2007
- Reactor
  - Discussions are on-going with EPA and DHEC regarding the Interim Action/Proposed Plan for the Reactor End State
  - Numerous engineering documents recently completed by D&D
    - Reactor End State Alternative CAB/public review: 3<sup>rd</sup> Quarter FY2007
    - Draft Reactor End State Record of Decision: 4<sup>th</sup> Quarter FY 2007

CAB Member Lawless asked what the facility would look like to a Native American in 200 years

Ms. Belencan said that DOE, DHEC, and EPA are working together to decide on an end state for the facility, perhaps some form of in situ closure. DOE will bring the development of the end state to the CAB and to a broader audience because DOE knows that this is an important action. She believes that DOE will be able to come to the CAB in 3<sup>rd</sup> quarter, perhaps in May, with a preliminary of what the proposed plan that will lead them through the summer. They'll then issue the proposed plan, get comments back, and issue the ROD at the end of year.

CAB Member Lawless asked how DOE would gather input from the CAB and the public.

Ms. Belencan replied that DOE has not decided yet. The three agencies really want to approach this in a smart way, knowing they must get it right. They realize that the CAB is a major stakeholder, but not the only one. They will determine the best way to gather as much public participation as possible.

CAB Member Marshall asked if all the D&D of the P Area happened under her jurisdiction. Ms. Belencan said that all had been done but the power house; the rest of activities, including closing of the seepage basins, have been done in the last 2.5 years. This is why we moved all our resources to P Area – very focused on P Area.

CAB Member Marshall went on to ask how CAB members should respond to questions about funding priorities being allocated to waste management rather than to D&D. Ms. Belencan said that she would leave this up to the CAB.

CAB Member asked if Ms. Belencan would elaborate on how SRS will prepare for the future. She replied that whatever the future holds for the site, the cleanup of the legacy will be done, and we will have addressed contamination that resulted from former production days, so that whatever the site will be in the future, the site will be clean.

CAB Member Drye asked if she had planned to say anything more about Appendix K. She said that she did not, but referred to background information contained in CAB members' packet:

- EPA/DOE Joint Policy on Decommissioning DOE Facilities Under CERCLA – May 22, 1995
- EPA, SCDHEC, DOE Memorandum of Agreement – May 22, 2003
- Decommissioning Approach
- Implementation of Appendix K

CAB Member Lawless asked if Ms. Belencan has a score sheet that notes the number of facilities closed or underway. She reminded him that the Gold Metrics chart has that information. Mr. Lawless then asked about the pending motion made last May on the P Area Operable Units relative to the P Area modeling strategy as part of the tank closure process. The P Area modeling is under review and revision as part of the tank closure process. Does that apply here as well? She said that she doesn't know, and that she would have to take the question back to the people who did the modeling. She needs to follow up on this. Mr. Lawless recommended that standardized models should be used to make sure that you do it right the first time. Get the right P Area models in place so you don't have to repeat the process. He then asked that DOE hold a workshop on the P Reactor end state, saying that the result is a much better educated public.

CAB Member Jayaraman notes that the CAB is not an expert advisory board, and he asks, "So, what are we?" We should keep that in mind as we try to teach, demand, and require. Our recommendations are based on the information we get from the experts, and it is not our place to determine the top priority. Our job is to express concerns, and not to direct, but to improve what we are doing, get more information, and express our concerns.

CAB Member Gilliard-Hill observed that nearly all of the excess facilities are gone. She asked for elaboration on the current pace. Ms. Belencan replied that DOE decommissioned 243 excess buildings in about 3.5 years and has caught up. They are now working with the Area completion process and are currently working on P Area. They will move to R Area next. She cautioned that we won't see dozens of facilities coming down in a month anymore; rather, we'll hear more about the engineering and planning that is ongoing related to the hardened reactors.

CAB Member Drye reported that she did not have a date set for the next meeting.

Ms. Sherritt reported that she had just received word that DHEC had issued the modified permit for the Saltstone Disposal Facility. CAB Member Lawless asked if Ms. Smith (DOE) could e mail distribution a copy of the letter.

### **Public Comments**



Member of the public, Jack Roberts, had two comments. He appreciated the NNSA update and thinks the NNSA facilities are integral to and among EM facilities. The agencies share common issues on the site, and he was pleased that Mr. Arkin wanted to keep the CAB involved. Mr. Roberts said that he had noticed that, except for CAB members, not many members of the public attend the meetings, especially the committee meetings. He has talked to people about this observation and reported that the good thing is that the CAB has a lot of confidence from people in the Aiken area, and citizens are counting on the CAB to represent them and expect DOE to keep the CAB informed.

CAB Member Drye thanked outgoing CAB members and expressed her appreciation for the opportunity to work with them.

CAB Member Marshall said that she has enjoyed getting to know individual CAB members, and she advised new CAB members that they would have a great opportunity to have an impact for the citizens of South Carolina and Georgia. She said that she thought long and hard about putting her name forward as chair of the Strategic and Legacy Management Committee but that she is ready and willing to put time into the committee. She looks forward to the opportunity to work with that committee.

CAB Member Mackey said that he was very humbled to be among a great group of people. He said that he doesn't take CAB membership lightly and that he is diligent in his thinking. He wants everything to go well for this CAB and for SRS. He is afraid that the CAB doesn't get the recognition it deserves. He hopes he'll be back as part of the board in the near future and that he would be happy to help. He thanked everyone from the contractor to DOE, all the people in the past and all the people on the CAB.

Member of the public, Joe Whetstone, said that the DNFSB letter is on the web. He noted that the DNFSB makes their materials readily available to the public, and he hopes that DOE will also make their comments readily available to the public. He then brought forward an issue that he has brought up in the past. He referred to the tanks at INEL that are the same vintage as the SRS tanks. The INEL tanks are not leaking; they're made out of stainless steel. If the SRS tanks had been built with similar material, we might not be facing the issues we're facing today. He then asked Ms. Sherritt (DHEC) who to contact at DHEC regarding the appeal process. She replied that all who commented will receive a response and that contact information would be in the letter.

Robert Pope, representing EPA Region 4, provided the CAB with an update on issues being worked on by EPA, DOE and SCDHEC. As Helen Belencan mentioned, he noted, in the DOE D&D update, EPA, DOE and DHEC have been in negotiations for some time to resolve the disposal of low level waste generated by CERCLA Removal Actions., negotiations that are ongoing and will continue. The SRS D&D program uses the E Area slit trenches to dispose of a large amount of the low level waste generated by SRS, he explained. As a result, EPA requested, and DOE agreed to provide information about the monitoring and operations of the E Area Low Level Waste Disposal Facility. Upon review of the data provided by DOE regarding E Area, EPA has concluded that the low level waste disposal in E Area has resulted in the release of tritium to the surrounding environment, and that this meets the definition of a release under CERCLA. As a result, EPA will have to formally rescind the CERCLA Off-Site Acceptability of E Area. Mr. Pope affirmed EPA's commitment to working out equitable solutions with DOE, SCDHEC, the CAB, and all stakeholders while remaining protective of human health and the environment and consistent with the laws with which EPA is entrusted. He said that he and Dawn Taylor would be available after the meeting to discuss the issue.

CAB Member Lawless asked Mr. Pope to explain what he means by an off-site release and what he means by retracting CERCLA permission. Mr. Pope's answer was in two parts:

1. EPA defines release in CERCLA by statute. EPA looks at what has come out of the Slit Trenches and defines it as a CERCLA release, meaning there is a need to be investigated and addressed if it's a large enough problem. It means the Slit Trenches would become CERCLA sites to be looked at. They become sites to be looked at, not operable units.
2. In 1996, EPA granted E Area off-site acceptability for CERCLA waste, which meant that CERCLA waste could be disposed there. Twenty-four units were named, the Slit Trenches being one of them. As a result of what EPA considers a CERCLA release, EPA is going to rescind that acceptability so that CERCLA waste can't be sent there automatically.

CAB Member Ortaldo said that the Waste Management Committee would invite an EPA representative to one of its meetings for a more in-depth discussion. Mr. Pope accepted the invitation.

Member of the public and candidate for the CAB, Stan Howard, introduced himself and pointed out that this is the second year he has applied for CAB membership.

CAB Member Ortaldo commented that Jim Brownlow pointed out that DHEC is doing its own independent sampling and methods of analysis, and performing its own independent methodology to get dose results to the public. He said that it is encouraging that for the last 5-10 years, DHEC results are falling like DOE's results, and the reports have been issued for the last 25-30 years. The 5-10 years of overlap give Mr. Ortaldo a lot of comfort in those previous reports, and he urged everyone to keep this in mind as they look over the report and the DOE annual reports. He commented that the public could be confident that the history of the site reports is accurate.

**Administrative Committee Report, Meryl Alalof, Chair**

Ms. Alalof reported that there will be two elections: the first on CAB members, the second on chair positions.

The Facilitator reviewed the candidates:

- Position 1 – Donna Antonucci, Norma Sudano
- 2 – Sunder Bhahia, William Guthier, Joe Ortaldo
- 3 – Manuel Bettencourt, Charles Foster, John Winarchick
- 4 – Art Domby, Paul Feldman, John Roberson
- 5 – Dorothy Bennett-Hill, Sarah Watson
- 6 – Elaine Boyinton, Ranowul Jazr, Faye Walker
- 7 – Ed Campbell, Wendell Lyon, Charles Pair
- 8 – Leon Chavous, Kendell Corley, Eralphia Eckles
- 9 – Mary Drye, Barbara Smith
- 10- Undrey Bostic, Warren Hills
- 11 – Terri Chaput, Lee Harley Fitts
- 12 – Dalton Brannen, Alan Eckmyre, William Palphreyman
- 13 – Franklin Bolineau, John Culberson
- 14 – John Bergstrom, Stanley Howard

Winners of the election were:

- Position 1 – Donna Antonucci
- 2 – Joe Ortaldo
- 3 – Manuel Bettencourt
- 4 – Art Domby
- 5 – Sarah Watson
- 6 – Ranowul Jzar
- 7 – Wendell Lyon
- 8 – Leon Chavous
- 9 – Mary Drye
- 10 – Undrey Bostic
- 11 – Terri Chaput
- 12 – William Palphreyman
- 13 – Franklin Bolineau
- 14 – Stanley Howaard

Committee Chairs elected were:

- Administrative – Gloria Williams-Way
- Nuclear Materials – Manuel Bettencourt
- Facilities Disposition and Site Remediation – Mary Drye
- Waste Management – Joe Ortaldo
- Strategic and Legacy Management – Madeleine Marshall

A motion to adjourn was made by CAB Member Bill Lawless with CAB Chair Patterson seconding the motion. The meeting adjourned at 3:33 p.m.

**Handouts**

SRS CAB Agenda  
Savannah River Site's Topics for CAB Consideration – 2007  
Plutonium Vitrification Update, draft motion  
SRS Citizens Advisory Board Briefing, SWPF Status, January 22, 2007  
SRS Gold Metrics – Through Dec. 2006  
SRS CAB Recommendation Status  
Fish Consumption Advisories  
SCDHEC Environmental Surveillance Oversight  
Plutonium Vitrification Update, final motion  
Deactivation and Decommissioning Project Update