SRS Citizen's Advisory Board

SRS Citizens Advisory Board

Combined Committees Meeting

Meeting Summary

February 26, 2002
Partridge Inn
Augusta, GA

The following were in attendance at the February 26, 2002, Combined Committee meeting of the Savannah River Site (SRS) Citizens Advisory Board (CAB) held at the Partridge Inn in Augusta, Ga.

CAB Members

David Adcock
Meryl Alalof
Judy Barnett
Nancy Ann Ciehanski
Ann Dalton
Gerald Devitt
Mel Galin
Ken Goad
Vera Barnes Jordan
William Lawrence
J.G. Long
Jimmy Mackey
Dorene Richardson
Lola Richardson
Murray Riley
Marty Stringer
Jean Sulc
Wade Waters
Carolyne Williams
Gloria Williams-Way
Bill Willoughby

Stakeholders

Melinda Holland
William Hooker
Mary Kelly
Robert Kelly
Anuj Saha
Lee Poe
Ernie Chaput
Mike French
Dusty Houser
Jim Pope
Frank Carl
Dennis Trout
Bill McDonell
Palmer Bowan
Brandon Haddock

Regulators

Keith Collinsworth, SCDHEC
Carrie Butler, SCDHEC

SCDHEC - South Carolina Department of Health and Environmental Control

DOE - Department of Energy

WSRC - Westinghouse Savannah River Company

DOE/Contractors

Greg Rudy, DOE
Tom Heenan, DOE
Bill Levitan, DOE
Becky Craft, DOE
Jim Gaver, DOE
Gerri Flemming, DOE
Jim Buice, DOE
Dale Ormond, DOE
Brian Hennessey, DOE
Michele Ewart, DOE
Karen Hooker, DOE
Virginia Kay, DOE
George Mishra, DOE
Bob Pedde, WSRC
Dave Amerine, WSRC
Bill Johnson, WSRC
Steve Piccolo, WSRC
Susan Cathey, WSRC
Paul Huber, WSRC
Howard Walls, WSRC
Laurie Hollick, WSRC
Clay Jones, WSRC
Mary Flora, WSRC
Robert Meadors, WSRC
Teresa Haas, WSRC
Jim Moore, WSRC
Dawn Haygood, WSRC
Lyddie Broussard, WSRC
Helen Villasor, WSRC

Kelly Way, WSRC
Paul Sauerborn, WSRC
Will Callicott, WSRC
Tricia Allen, WSRC
Ed McNamee, WSRC
Peter Hudson, BSRI
Mike Schoener, CAB

SRS CAB Members Beckie Gaston-Dawson, Perry Holcomb, and Heather Simmons were not in attendance.

The objective of the meeting was to hear presentations regarding the Environmental Management Top-to-Bottom Review and FY2003 Appropriations Process and to provide input into DOE-SR's proposals for funding from the Cleanup Reform Appropriation.

Environmental Management Top to Bottom Review

Bill Levitan, DOE-Headquarters, provided a presentation on the EM Top-to-Bottom (T2B) Review (see attachment). Mr. Levitan stated that the T2B Review was the Secretary's Initiative to review all aspects of EM's cleanup program noting that the current plan takes too long and costs too much. The Secretary chartered an independent review team to assess the EM program from "top to bottom." The team spent several months conducting interviews and visiting various sites. The final report is the result of many people's ideas of how DOE can do things better, he said. Mr. Levitan clarified that it is not an implementation plan. He stated that overall the team discovered that EM is good at managing risks, however it is not oriented to reducing risks. The manner in which EM develops, solicits, selects and manages many contracts is not focused on accelerating risk reduction and applying innovative approaches to doing the work. He noted that waste is defined by its origin versus risks and questioned why it is defined that way. Another finding was that EM's cleanup strategy is not based on comprehensive, coherent, technically supported risk prioritization. Internal business processes are not structured to support accelerated risk risk reduction or to address its current challenge of uncontrolled cost and schedule growth. Mr. Levitan noted that 7% of the EM budget is not focused on cleanup. He stated that the current scope of the EM program includes activities that are not focused on or supportive of an accelerated, risk-based cleanup and closure mission.

The EM T2B Review Final Report recommends improvements in DOE's contract management and that DOE adopt agreements with regulators for accelerated, risk-based cleanup strategy. It also recommends that DOE align and revamp internal processes and redeploy, streamline or cease activities not consistent with the cleanup and closure mission.

EM Top-to-Bottom Review and Cleanup Reform Appropriation

Greg Rudy, DOE-SR Operations Office Manager, provided a brief SRS progress overview noting accomplishments in the various site programs (see attachment). He also discussed a new view for the future noting the current trajectory is not the best we can or should do at SRS. The Top-to-Bottom Assessment helps shape a transitional plan for the future, he said. Breakthrough to the next level is needed and attainable at SRS under the new business model of accelerated risk reduction. Mr. Rudy noted that the Cleanup Reform Appropriation is key. The FY2003 budget falls into two categories- a base component for each site and the Cleanup Reform Appropriation. Mr. Rudy reviewed the following three basic goals of the EM budget objectives:

- Eliminate significant health and safety risks as soon as possible

- Review remaining risks on a case-by-case basis working with state and local officials to determine the most appropriate remediation schedules and approaches
- Streamline cleanup so that funding spent on routine maintenance and security will be put to use for further expedited cleanup

Greg Rudy discussed the Cleanup Reform Appropriation explaining that this is a new $800 million account for initiatives that can accelerate cleanup. The Administration has committed to add another $300 million each year if required by enough sites. The fund is focused on reducing risk to workers, public and the environment; reducing life-cycle cleanup costs and schedules; and the involvement of sites, regulators and the community. Mr. Rudy provided a comparison of the FY2002 Appropriation and the FY2003 Congressional requests. FY2002 base cleanup was $1,064,414K and the request for FY2003 is $961,103K. Mr. Rudy concluded by stating that implementing the new business model offers significant opportunity for accelerated risk reduction and cleanup by accelerating completion of cleanup of cold war legacy areas on site and across the complex.

Board members questioned how certain programs are being funded, including Science & Technology, the Savannah River Ecology Laboratory and planned plutonium disposition facilities. Mr. Rudy explained how some of the funding was being reallocated to the Office of Science so that EM funding can focus on missions. Funding for the plutonium disposition facilities is not part of the EM budget.

Tom Heenan, DOE-SR Assistant Manager for Environment, Science & Technology, addressed the group to key up the afternoon noting that this is an opportunity for "ground floor" public involvement and that no decisions have been made. He noted that the purpose of the day's meeting is to review the initiatives under consideration and receive CAB input not only on the initiatives discussed but on any additional options that should be considered as well.

Bob Pedde, WSRC President, also made brief remarks and asked the stakeholder to provide input from two perspectives. He asked them to address if SRS go to far or did they go far enough? Did the site think of everything? He asked that the stakeholders to provide a quality check and provide input regarding whether the site is on the right track.

SRS Cleanup Reform Proposal

Clay Jones, WSRC discussed cross-cutting themes in the SRS initiatives. He noted that the focus is on accelerated EM material disposition and facility closure and maximizing integration and synergy across programs within SRS and across the DOE complex. Mr. Jones stated that rather than looking at the big problem, it should be broken down into more manageable components. He noted the KAMS facility for plutonium storage as an example and stated we need to continue with that type of thinking. He stressed the need to maximize utilization of existing facilities and capabilities, beyond current uses if appropriate. Investment in new facilities should be minimized, he said. Mr. Jones also discussed the need to tailor standards and requirements to the specific application. He stressed that this is not about backing off safety. Mr. Jones introduced nine initiatives to be considered by the Board and introduced the various subject matter experts. Board members were asked to hold questions until the afternoon breakout sessions and presenters were asked to briefly present the following nine initiatives being considered to allow stakeholders to determine which breakout session to attend.

Initiative	Program	Presenter
Accelerate Mission Completion and Minimize Footprint	Nuclear Materials Management	Bill Johnson
Invest in Current Capabilities and Support Complex Wide SNM Consolidation	Nuclear Materials Management	Bill Johnson
Expedite HLW Sludge and Salt Processing	High Level Waste	Steve Piccolo

Expedite Tank and Processing Facility Closure	High Level Waste	Steve Piccolo
Accelerated Closure of the Old Radioactive Waste Burial Ground	Environmental Restoration	Paul Huber
Accelerated Contaminant Reduction in Fourmile Branch Stream	Environmental Restoration	Paul Huber
Accelerated Risk Reduction through Innovative Technologies and Improved Regulatory Processes	Environmental Restoration	Paul Huber
Accelerate Risk Reduction through Expediting TRU Waste Shipments to WIPP	Solid Waste	Peter Hudson
Cost Effective/Risk Reducing Alternative to Incineration of PUREX Waste	Solid Waste	Peter Hudson

Nuclear Materials Management

Bill Johnson, WSRC VP for the NMM Division, provided a brief program overview and then discussed five activities within two initiatives (see attachment). The NMM Division mission is receipt, stabilization, packaging and storage of legacy nuclear materials and to support the U.S. non-proliferation initiatives. The overall philosophy of the two initiatives is to utilize SRS unique capabilities and target investment in enhanced ability, he said. Mr. Johnson discussed the following initiatives:

Accelerate Mission Completion and Minimize Footprint

1. Consolidate spent nuclear fuel storage facilities by accelerating the three-to-one basin strategy for completion from FY06 to FY04. Spent fuel in the K Basin and the Receiving Basin of Offsite Fuels would be consolidated in the L Basin. The benefits are consolidated safeguards and security posture and lifecycle cost savings.

2. Minimize the footprint of ongoing process facilities by accelerating closure of the F-Canyon. SRS F Area legacy materials consolidation would be accelerated from FY08 to FY05 and F Area Separations Facility Deactivation would be accelerated from FY12 to FY07. The benefits are consolidated safeguards and security posture, accelerated risk reduction and life cycle cost savings.

Invest in Current Capabilities and Support Complex Wide SNM Consolidation

3. Optimize spent nuclear fuel storage to support integrated risk-based disposition by maintaining a single basin storage capacity and establishing an integrated SNF disposition process. The benefits are accelerated risk reduction, support for non-proliferation objectives and life cycle cost savings.

4. Invest in targeted facilities to support disposition of SRS materials particularly plutonium packaging, characterization, surveillance and final disposition and spent nuclear fuel disposition. The benefits include accelerated risk reduction and life cycle cost savings.

5. Enhance capability to support storage and disposition of complex-wide materials such as the K Area Materials Storage Facility and utilization of H Canyon. The benefits include enhanced homeland security posture, DOE complex life cycle savings and accelerated risk reduction.

High Level Waste (HLW)

Steve Piccolo, WSRC VP for the HLW Division presented two primary initiatives (see attachment). He also thanked the CAB for its involvement in the HLW program over the past 6-7 years noting the problems solved during that the time and the challenges remaining.

Expedite HLW Sludge and Salt Processing

An expedited schedule ten years earlier than baseline was proposed. Forty percent of HLW Tanks would be immediately classified as a closure facility with tailored requirements. Defense Waste Processing Facility canister production would be increased and more waste would be placed in each canister. Salt processing would be expedited by segregating salt waste streams and applying appropriate disposal methods to each stream. This proposal would also support shipment of HLW canisters to Yucca Mountain up to two decades earlier.

Expedite Tank and Processing Facility Closure

The proposal requires working with regulators to schedule final tank closure actions and determine if alternate methods are appropriate. SRS would simplify the D&D plans for processing facilities to recognize that the site will not be turned back to a greenfield.

Mr. Piccolo noted that Americium/Curium is coming to the HLW division for disposal and discussed pushing the envelope on glass qualification. Plutonium may be directly fed into glass which would support expedited F&H Canyon closure. Other items under consideration are to evaluate disposition of additional plutonium in the HLW system from across the complex. Complex-wide technology advances need to be evaluated as well to determine if additional improvements are possible. The benefits of the HLW initiatives are reduction of life cycle cost by up to 30 percent; reduction in future Yucca Mountain Repository costs by reducing the number of canisters shipped to the repository and it offers the opportunity to reduce costs and maintain closure schedules at other DOE sites. Mr. Piccolo emphasized that the initiatives were not only budget driven. The primary drive is to get out of the tanks faster.

Environmental Restoration (ER)

Paul Huber, WSRC Deputy General Manager for the ER Division presented ER initiatives (see attachment). The mission of the ER program is to reduce risk to human health and the environment by remediating waste sites and contaminated groundwater aquifers. The Division strategy is to accelerate risk reduction and reduce the cost of cleanup by applying innovative technologies that eliminate major contaminant sources. Optimized use of passive and monitored natural remediation solutions and uses of Integrator Operable Unit data to understand the SRS picture is also part of the division strategy.

Accelerated Closure of the Old Radioactive Waste Burial Ground

Accelerated closure of five higher risk waste sites as a single action is the first proposed initiative. This would consolidate contaminated soil from four waste sites in the ORWBG and then a final closure cover would be constructed for each of the excavated sites. The excavated materials would establish the final grade for the closure of the ORWBG and a low permeability closure cap would be constructed over the ORWBG. The benefits are a reduced project completion schedule by three years with a $7 million savings; ninety-nine percent risk reduction at four waste sites; and significant worker risk and cost avoidance by leaving the ORWBG contaminated soils in place for closure.

Accelerated Contaminant Reduction in Fourmile Branch Stream

Fourmile Branch is being contaminated by metals and radionuclides from groundwater plumes. The plumes are under a remedial action which includes two pump-and-treat systems. This initiative will raise the aquifer pH and immobilize metals to stop their migration to the stream with base injection and utilize

phytoremediation with spray irrigation to reduce aquifer recharge through evapo-transpiration. The benefits are accelerated stream cleanup by three years and 80 percent risk reduction to human health and the environment at the stream.

Accelerated Risk Reduction through Innovative Technologies and Improved Regulatory Processes

Innovative technologies and streamlined regulatory processes could achieve accelerated risk reduction and lower costs if aggressive source remedial technologies were implemented, such as Dynamic Underground Stripping and Microenfractionation. Passive remedial technologies can be implemented based on good science to drive down cost. This initiative also proposed using a core team approach to streamline the decision-making process and shorten the time to begin cleanup work. Good decisions should be made ealier, non-value added steps should be skipped and IOU program data should be optimized while ensuring stakeholder needs and objectives are met.

Solid Waste

Peter Hudson, BNFL Chief Engineer, noted the mission of the Solid Waste Program is to provide a cost effective and environmentally responsible solid waste management services in support of DOE missions at SRS and across the complex. This includes low-level, hazardous, mixed, transuranic and sanitary wastes. He presented the following initiatives (see attachment):

Accelerate Risk Reduction through Expediting TRU Waste Shipments to WIPP

Additional assay capability for Pu-238 and 239 waste and the capability to remove prohibited items and repackage would enhance characterization and process facilities. The current schedule calls for 12 shipments of TRU waste a year until 2014, however 60 shipments are needed to accelerate elimination of TRU waste by 2024. Existing limits on the TRUPACT-II containers are restrictive and enhanced payload capability is needed. The benefits are a ten-year acceleration of eliminating this legacy waste and overall reduction in risk to SRS. There are several prerequisites to success including initial investment above the baseline, implementation of the Carlsbad Field Office's Optimization Plan for WIPP and release of TRUPACT-II's from other sites in FY2003.

Cost Effective/Risk Reducing Alternative to Incineration of PUREX Waste

The initiative is to provide a stabilization treatment facility for PUREX wastes as an alternative to incineration. This would require initial investment above the baseline, a treatment permit from SCDHEC and facility construction. The benefits are a less complex process with little technical uncertainty, legacy elimination by 2009 versus 2019, support for early deinventory of the F-Area Canyon, and overall risk reduction at SRS.

Nuclear Materials Breakout Session Notes

CAB Members	**Stakeholders**	**DOE/Contractors**
Ken Goad	Ernie Chaput	George Mishra, DOE
William Lawrence		Robert Meadors, WSRC
Jean Sulc		W.F. Swift, WSRC
Wade Waters		John Dickenson, WSRC
		William J. Johnson, WSRC

Teresa Haas, WSRC

Jim Moore, WSRC

Lyddie Broussard, WSRC

Robert Meadors introduced himself as the facilitator of the breakout session for the NM Committee. He welcomed those in attendance and asked them to introduce themselves. He explained that the purpose of today's session was to review the proposed NM initiatives under consideration and to provide feedback. In addition to discussing the proposed initiatives, members were encouraged to provide input for any other initiatives that they feel should be considered over and above those presented by W. J. Johnson.

Initiative 1 - Accelerate Mission Completion and Minimize Footprint

Item 1 - *Consolidate Spent Nuclear Fuel Storage Facilities*

The first agenda item proposes accelerating the Three-to-One Basin Strategy. Mr. Johnson explained the cost savings associated with consolidating current operations in RBOF, K basin and L basin by FY04. In addition to cost savings, Johnson explained the safeguards and security benefits gained through a single basin strategy by utilizing L basin as the receipt basin for all spent nuclear fuels. Johnson, assisted by William Swift and John Dickenson of NMMD, answered numerous questions from the attendees relative to the following topics:

- Technology needed to support accelerated schedule
- Impact of suspension of Melt & Dilute Technology
- Ability to shift resources as needed
- Identification of domestic and foreign fuels targeted for the basin
- Budget stability to plan and implement strategy effectively
- Security risks associated with consolidation

Initiative 1 - Accelerate Mission Completion and Minimize Footprint

Item 2 - *Minimize Footprint of Ongoing Process Facilities*

The next agenda item considered by the committee dealt with a proposal to shift all separation capabilities from F Area to H Area. This includes addressing F Area legacy materials and deactivation of F Area facilities. The advantages offered by this proposal involves a life cycle cost savings and accelerating risk reduction while consolidating our safeguards and security posture. NMMD representatives explained that in order to accomplish this initiative, it will not require new technologies but will require a design and construction investment. Questions that were raised and addressed included the following issues:

- Ramifications to H Area and associated schedule
- Basis for ongoing costs associated with F-Canyon after March '02
- Critical path for F Area
- Status of 3013 packaging
- Disposition of PUREX solvent
- Allocation of budget for 2000-1 Commitments

Initiative 2 - Invest in Current Capabilities and Support Complex Wide SNM Consolidation

Item 1 - *Optimize SNF Storage to Support Integrated Risk-Based Disposition*

This agenda item was introduced as a means to establish an integrated Spent Nuclear Fuel (SNF) disposition process with the single basin storage capacity. Johnson indicated that resources would be needed to maintain L basin capacity as well as to provide for additional future capability in L basin. Under this initiative, K basin would be maintained in a standby mode. The advantages of this approach would be accelerated risk reduction, life cycle cost savings, and support for non-proliferation objectives. NMMD representatives answered questions from the attendees relative to the following topics:

- Other DOE sites who receive SNF
- Options for disposition
- Long term disposal requirements
- Regulatory concerns
- Infrastructure issues
- Damaged/leaking fuel concerns

Initiative 2 - Invest in Current Capabilities and Support Complex Wide SNM Consolidation

Item 2 - *Invest in Targeted Facilities to Support Disposition of SRS Materials*

The next agenda item considered by the committee addressed plutonium packaging, characterization, surveillance and other spent nuclear fuel disposition. This initiative is also designed to accelerate risk reduction and increase life cycle cost savings. NMMD representatives answered questions from the attendees relative to the following topics:

- Budget advantages
- Basis of Priorities
- Disposition Options

Initiative 2 - Invest in Current Capabilities and Support Complex Wide SNM Consolidation

Item 3 - *Enhance Capability to Support Storage and Disposition of Complex Wide Materials*

The last agenda item considered by the committee focused on material storage capability and infrastructure needed to support the receipt and disposition of materials from throughout the DOE complex. Committee members were assured that NMMD was committed to do everything necessary to ensure the material destined for long term repository is safe now and for the future. The committee was advised that this initiative would enhance DOE's opportunity to close other sites as well as support safeguard issues for homeland security. This would result in DOE complex life cycle savings. NMMD representatives were quizzed about the following:

- Capability to handle Rocky Flats shipments
- Relationship of K area operations to MOX
- SC Governor and political issues with Pu
- Interface between NM and DWPF/HLW

Conclusions

Robert Meadors reviewed with the participants the issues that had been identified with the aforementioned initiatives. Committee members stated they agreed and supported the approach provided by Mr. Johnson to reduce the number of facilities to clean up and maintain provided DOE provides adequate budget and resources for the proposed tasks.

A brief summary of issues was developed for consideration when meeting participants reconvened. The following list included generic issues and other considerations in addition to issues that should be considered by DOE and WSRC when finalizing their decisions on clean-up reform proposals:

Generic Issues

- Long term stewardship
- Handoff
- Commitment of resources
- Support from Congress for ECA Initiatives
- Does base budget support DNFSB 2000-1 commitments
- What doesn't get done?
- Need to fund base budget (eg 2000-1) before CRAs
- Relative Priority of Initiatives from Site Perspective
- Make sure you consider Surveillance & Maintenance issues in F Canyon closure.

Nuclear Materials - Accelerate Mission Completion and Minimize Footprint

- Security risk of consolidated inventories
- Lack of reference to Melt & Dilute
- Implementability of long term strategy

    Engineering studies
    $ and timeframe

Minimize Footprint of Ongoing Process Facilities

- Loss of F-Canyon capability vs. having to create new
- Shifting future burden to H-Area
- APSF > 235 > FB-Line
- Impact on schedule - overall shortened schedule
- F-Canyon - Disposition of PUREX solvent?
- SW Proposal
- Does it involve Storage @ SRS

Invest in Current Capabilities and Support Complex Wide SNM Consolidation

- Optimize SNF Storage To support Integrated, Risk-Based SNF Disposition
- Maintain K-area storage capability as standby
- What is cost/benefit risk?
- What does Integrated and Risk-Based mean?

    Facilities, People, (?)
    Process in Canyon
    Direct Disposal
    Co-Disposal
    Melt & Dilute
    Integrate with other capabilities consistent with ECA initiatives and other long term strategies

- What is role of regulations in SNF management?
- How does Yucca Mountain Play in?

Schedule
Form
Package

- Infrastructure – Is it sufficient, Is there adequate budget support?
- Ability to deal with damaged/leaking fuel

Invest in Targeted Facilities to Support Complex Wide SNM Consolidation

- What are the priorities?

  What comes first … or is it a single option (Pu path needs earlier investment based on risk)

Enhance Capability to Support Storage and Disposition of Complex Wide Materials

- Is KAMs adequate for additional receipts … or is expansion required

  How will materials be procesessed/dispositioned
  Prerequisite:
  State of SC agreement
  Must have Exit Strategy

- Need additional development and dialogue for CAB consideration
- How will any future processes interface w/DWPF

Other Considerations

- How can we help Nevada? Equity issues
- Need to take credit for closing down F-Area facilities while maintaining core capabilities
- Need to demonstrate how initiatives are integrated in an internally consistent the site proposal
- Make sure stakeholder communications are frequent and thorough (Be able to respond to Devil's Advocate position)

High Level Waste Breakout Session Notes

CAB Members	**Stakeholders**	**DOE/Contractors**
Bill Vogele	Dr. Mary Kelly	Steve Piccolo, WSRC
Bill Willoughby	Bob Kelly	Susan Cathey, WSRC
Gerald Devitt*	Mike French	Kelly Way, WSRC
	Jim Pope	Mary Flora, WSRC
	Chuck Powers	Jim Buice, DOE
	Ernie Chaput	Bill Spader, DOE
	Bill McDonell	Virginia Kay, DOE
		Will Callicott, WSRC
	Regulators	Trish Arnold, WSRC

Keith Collinsworth Bill Levitt, DOE

Mary Flora, facilitator, welcomed everyone and reviewed the break out session process. She outlined the High Level Waste initiatives presented by Steve Piccolo in the morning session and asked for stakeholder input.

Bill Willoughby opened immediately with the comment that SRS needs to get on with the salt processing. Also, regarding the schedule and the old solvent extraction process, the whole process takes a long time. The contract, procedures, and paper work required seem never to get done. He pointed out that a commercial nuclear industry could not exist under these same restrictions.

Ernie Chaput had a serious concern regarding the focus on contractor performance initiatives. He contends that the base budget is woefully underfunded and believes that the DOE approach of making sites compete for $800M is wrong. He pointed out that the sites are competing for funds that are already expected from stakeholders and that are DOE commitments. He said that until the base is adequately funded and commitments are met, then it would not be fair for DOE to talk about additional money to accelerate cleanup. He stated no new initiatives should be considered until base is adequately covered and commented that $800M will not go very far stating SRS will be lucky just to stay even.

Chuck Powers asked about the amount of waste to be processed. Steve Piccolo answered that the HLW system is an extremely integrated process. "Turning one knob in the system actually unbalances the process. The complexity can not be minimized." Mr. Piccolo continued with examples. Looking at the sludge issue and can production, if DWPF is turned up to a 300-cans/year production, but SRS didn't prepare Sludge Batch 4, then two years of work merely unbalanced the system. These initiatives have some risks involved because they are all inter-linked.

In addition, for six or seven years HLW has worked for a broader range of different and better glass formers. The SRS goal is to be able to put more waste per unit of glass former. We are three to four months away from finishing improvements on it. Then a SC manufacturer that can do this work for HLW must be procured. In addition, we must ensure that we don't run out of feed.

Bill Willoughby questioned the bottleneck for the sludge preparation. Mr. Piccolo answered that there were technical and financial reasons involved. SRS didn't have the space in the evaporator performance. Evaporator performance has recovered and is technically viable. The Waste Removal Line Item funding source is the next issue. SRS must ensure money is available for work that HLW is ready to do.

Bill Levitan, DOE HQ, questioned if SRS could accelerate the reduction of risks. He suggested that SRS look at the whole system and decide if there were better and faster ways to take care of waste and stabilize it using other techniques. He added that it is unfortunate that the top to bottom review came out at the same time as the budget. The whole concept behind the Review is to identify approaches to accelerate the reduction of risks.

Mary Kelly stated her concern is bringing new missions to SRS that will produce even more waste. She would like to see the waste that is already at SRS cleaned up. She asked how SRS planned to handle the MOX waste stream. She also questioned other government initiatives that would require SRS to accommodate the waste streams. She stated that South Carolina doesn't want a waste empire built. Mr. Vogele added that getting rid of the waste in the tanks should be the number one priority.

Mr. French has concern with the new Salt Waste Processing Facility (SWPF) and the interface required between the SWPF contractor and SRS. His concern is that SRS will not have enough funding to maintain the interfaces. Mr. French also inquired if it would be beneficial to close the F Tank Farm first, both from a budgetary as well as a risk reduction standpoint. Mr. Piccolo responded this is under consideration.

Mr. Powers raised his concern with DOE Order 435.1. He questioned the SRS set of plans for salt and containment redefinition. Mr. Piccolo answered that HLW is looking for stakeholder input into this process. The Performance Assessment outlining the intruder analysis needs input from the public. In addition, the classification of waste is another issue that is pending.

Mr. Collinsworth pointed out that HLW is classified based on process. DOE self determines the waste incidental to reprocessing (WIR). Saltstone is regulated by SCDHEC as an industrial solid waste facility. SCDHEC regulates the hazardous component. Mr. Collinsworth used tank closure as an example. SCDHEC enters the picture once the waste is removed and the tanks are ready for closure. The WIR issues stems from the fact that DOE removes all waste practicable. DOE determined then that the waste that was left in the tank was WIR, and SCDHEC agreed. The same argument could be used for salt. DOE can determine if the low curie salt that is left it is WIR. However, DOE and SCDHEC are discussing the definitions of high level waste, WIR, etc. and hope to come to an agreement.

Mr. Levitan stated that the waste definition should be of a risk basis and not of a waste origin basis. Mr. Collinsworth added that the site and SCDHEC would work the issue and figure out technically what makes sense. Mr. Piccolo added that at there was no sense in SRS spending money to treat waste if there was no need.

Mr. Willoughby stated he would like to see HLW get rid of Americium/Curium.

After lunch, Mr. Piccolo walked the group through waste removal and tank closure. He explained the water washing method of waste removal. He then went through the different grouts that were put into the tanks after waste removal. He answered concerns about stress corrosion cracking, and informed the group that SRS has established a corrosion protection program from the liquid surface down. He indicated that the tanks are structurally sound, but it is in the best interest of all to get the liquid waste out of the tanks.

The group discussed annuli cleaning, the MOX waste stream, safe storage of waste, a second glass waste storage building, dry storage, modular storage, and Yucca Mountain. After much discussion, the group agreed to submit the following public comments on the initiatives when meeting participants reconvened:

<u>Expedite HLW Sludge and Salt Processing</u>

- Expedite low curie salt processing
- Mixing Low curie salt with grout and sending to Saltstone is a good idea
- Accelerate waste removal
- Maximize DWPF can production
- DWPF can base should be 250 not 100
- Waste removal from old style tanks should be highest priority
- Integrating salt and sludge processing is good and important. These initiatives should not be separated.
- The redefinition of key radionuclides in DOE Order 435.1 will be important and will help salt processing. Provides relief from Intruder analysis.
- Consider if there is anything else that you could do to expedite salt and sludge processing?
- New Salt Processing contractor/facility will require interface between WSRC, DOE and ??. Concern on adequate funding
- Takes too long to get contract written and construction done; procedures, procurements

<u>Expedite Tank Closure and Processing Facility Closure</u>

- Getting rid of waste in Tanks should be highest priority

- Goal should be to close tanks and get on with it
- "Batching" closure of a number of tanks together makes sense (it's ok to leave empty tanks waiting for closure)
- Think about closing F-Tanks first
- Determine the extent and nature of contamination in tanks and tank annuli
- Consider a Corrosion Protection Mechanism
- Consider when liquids should be added to the tanks when waste is removed to determine Tank condition above liquid level
- Consider other closure techniques within the bounds of the current EIS
- Consider grouting of annuli
- Evaluate future re-use of tanks (e.g. MOX)
- Small tank for MOX waste vs. continuing to use existing tanks (acid stream)

Other HLW Topics

- Entire base budget is under funded - competing for a base budget is wrong - DOE had commitments and they should live up to them (overall comment-fix)
- No new commitments should be made until the base is funded
- Competition for the 800M will be keen
- May put Communities at risk
- Processing Am/Cm should be expedited
- Glass Waste Storage Building status—look at dry storage capability, modular storage
- Evaluate processing of Solid Waste (CIF) waste streams in Saltstone

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Environmental Restoration Breakout Session

CAB Members	**Stakeholders**	**DOE/Contractors**
Jimmy Mackey	Dusty Houser	Jim Gaver, DOE
Nancy Ann Ciehanski	Lee Poe	Tom Heenan, DOE
Lola Richardson	William Hooker	Becky Craft, DOE
William Lawrence		Karen Hooker, DOE
Murray Riley		Gerri Flemming, DOE
Ann Dalton		Paul Huber, BSRI
Judy Barnett		Ed McNamee, BSRI
Marty Stringer		Clay Jones, WSRC
David Adcock		Mary Flora, WSRC
Mel Galin		Paul Sauerborn, WSRC
		Helen Villasor, WSRC
		Cliff Thomas, WSRC
		Peter Hudson, BNFL

At the outset of the Environmental Restoration (ER) breakout session, three initiatives for discussion by the group were presented by Paul Sauerborn, facilitator. The group was asked to provide information that would assist DOE in its preparation of a proposal on the SRS Cleanup Reform Appropriation (CRA) that will be submitted to DOE-HQ. Below are detailed issues/comments/ideas that arose during discussion of the various initiatives:

Accelerated Closure of the Old Radioactive Waste Burial Ground

- What is being done now and how can we speed it up?
- Current baseline combined to determine disposal path.
- Enable consolidation of five units to one unit.
- Take five separate regulatory processes and streamline into one to reduce paperwork.
- Is there enough money in budget to cover acceleration?
- Groundwater handled separately.
- Are people going to be involved in this effort as workers?
- Subcontractors would do work, would not impact workforce
- Is program the same without any acceleration?
- Same program with acceleration.
- Has any modeling been done to relate it to $800 million?
- Proposed plan is to ask for the $800 million to complete what work?

Mr. Lee Poe was asked to provide some background on the work the Old Radioactive Waste Burial Ground Focus Group had performed. Mr. Poe noted the following:

- Focus group recommended a clay cover.
- Four recommendations out of five had been accepted by the CAB.
- Addressed institutional controls.
- Active/passive.

The group discussion continued with the following comments:

- Hard to know what you want us to say or decide to get our arms around except that we should just ask for the money.
- What are you asking us to do?
- Frustrating exercise – no information.
- Does the concept seem viable?
- Difficult to endorse proposal with limited knowledge on initiatives.
- The five in one concept may not be the best approach.
- The CAB not prepared for this – what does it mean?
- Don't know what is in baseline.

Accelerated Contaminant Reduction in Fourmile Branch Stream

- You want to accelerate but still have unappropriated funding balance - what is going to be different beyond baseline that you need this additional funding?
- CAB doesn't understand context of how $800 million plays into the program.
- Not enough details provided.
- Will $800 million be used for conceptual purposes?
- Is there an estimate of how much the proposal will cost?
- Some top-to-bottom already being done but need CAB input to get part of $800 million.
- Can't just come in with ongoing programs, have to compare it with something else.
- Provide DOE with a baseline that says we should get there at this cost and with this schedule.
- Is DOE focusing on right things, thinking about risk reduction?
- Once process goes through today, we have to have you come back and explain to the CAB some of the data we needed today plus what we have done today.
- After today we need a follow-up to today's outcome.
- Where do we want to go, then figure out how much it will cost and then proceed from there.
- There is a timing issue here.

- $960 million is point of departure.
- Is this $800 million a slush fund?
- Are these initiatives going to be included in the Integrated Priority List?
- Need to be assured technology works (base injection).
- Has not been presented to us that we understand.
- Not much risk reduction.
- Total dollars will not be significant.
- SRS needs to really write what you are trying to accomplish.
- Make clear what trying to accomplish in proposal.
- Agree with concept.
- Need realistic timeframe/achieveable.
- Checked other cleanup methods this one deemed the best.

Accelerated Risk Reduction through Innovative Technologies and Improved Regulatory Processes

- Missing the hookup between demonstrated technology and application.
- We need to be educated on technologies in a timely manner.
- Technology presented to CAB and related issues on timely basis.
- Make sure CAB clued into regulatory process early on to help streamline.
- Need explicit ways for CAB to become educated on technologies.
- Measure of success for path forward needs to be made clear.
- Overall positive impact on lifecycle costs.

The following generic comments were also made during the ER Breakout Session:

- Conduct a massive CAB meeting and participate by videoconference.
- Base budget about 85 percent of what we ran last year.
- What was heard this morning is what DOE is expected to do anyway.
- Get problems identified.
- If you look at budget request, no one is saying that it's all fouled up or that the future is all that great.
- Lots of activities to do and are doing – should not have to go out on street to beg for more money.
- Secretary saying that past performance has impact on decision making for budget.
- How can you make cuts within SRS and keep activities in place?
- If pushed too hard, may end up doing sloppy and shoddy work because of budget cutbacks.
- SRS has missions at SRS that other sites do not have but SRS is smarter – more margin for better results.
- Pressing too hard could cause personal injury to workers.

Following discussion and clarification of various issues, the group agreed on the following public comments regarding the initiatives to be presented when meeting participants reconvened:

Generic Comments

- Difficult to endorse details with limited knowledge on initiatives – not prepared to give input.
- Site needs to clearly specify details in proposals.
- Need to understand concept of CRA.
- Proposal should address what dollars will be used for, benefits, cost effectiveness.
- Need further stakeholder involvement in proposal process.
- In all projects, assure the technology will work.
- All proposals should address institutional controls.
- CAB needs to be informed in timely manner of technologies.

Accelerated Closure of the Old Radioactive Waste Burial Ground

- Address whether consolidation of soils will adversely impact health/environment
- Endorse 5 to 1 consolidation approach

Accelerated Contaminant Reduction in Fourmile Branch Stream

- Proposal should emphasize elimination of pump and treat
- Proposal should clearly state and communicate risk reduction
- Plan needs to quantify risk, health, etc.

Accelerated Risk Reduction through Innovative Technologies and Improved Regulatory Processes

- Overall agreement with concepts
- Separate three concepts into individual proposals
- Set achievable schedule

Solid Waste Breakout Session

CAB Members	**Stakeholders**	**DOE/Contractors**
Bill Vogele	Dr. Mary Kelly	Steve Piccolo, WSRC
Bill Willoughby	Bob Kelly	Susan Cathey, WSRC
Gerald Devitt*	Mike French	Kelly Way, WSRC
	Jim Pope	Mary Flora, WSRC
	Chuck Powers	Jim Buice, DOE
	Ernie Chaput	Bill Spader, DOE
	Bill McDonell	Virginia Kay, DOE
		Will Callicott, WSRC
	Regulators	Trish Arnold, WSRC
	Keith Collinsworth	Bill Levitt, DOE-HQ
		Dale Ormond, DOE
		Peter Hudson, DOE

Mary Flora, facilitator, welcomed everyone and reviewed the break out session process. She outlined the Solid Waste initiatives presented by Peter Hudson in the morning session.

Bill Vogele made the point that the new budget baseline described this morning did not include shipments to WIPP. He asked how the program could be accelerated if shipments aren't made. Questions and discussion ensued about the budget and if it covered the HandSS 55 facility. Dale Ormond, DOE, clarified that the facility is Headquarter's money and is in the budget. Mr. Voegle suggested enhancing the HandSS-55 facility, if possible.

The TRUPACT discussion centered on the need to send the TRUPACTS to SRS as soon as possible. It was determined that this situation is more of a scheduling problem than a budget one. Mr. Ormond

clarified that some other sites have a higher priority than SR. He stated that there would be more TRUPACTS available to SR by late 2002/early 2003 to transport waste.

Dr. Kelly questioned the shipping model time reduction. Mr. Hudson and Mr. Ormond clarified the issue for the group and stated that it is more of a permit issue. The group discussed "hydrogen getters", the NRC, the safety analysis, and the drum filters. The point was made that new assay equipment is needed to increase throughput. Further enhancements are needed as well. Mr. Ormond noted that new missions at SRS are going to generate more TRU waste. SR needs to ship off the legacy waste before this happens.

Mr. Willoughby stated that there was much public concern with shutting down CIF and noted he would like to see CIF considered as a viable alternative. Mary Kelly interjected that the public doesn't like incineration, and incinerators don't work 100% effectively. She stated that incineration doesn't have a good track record. Mr. Vogele stated that incineration may not be the best way, but it should be considered.

After discussion and clarification on the issues, the group agreed on the following public comments regarding the initiatives to be presented when meeting participants reconvened:

Expedite TRU Waste Shipments to WIPP

- Send TRU waste to WIPP and out of South Carolina
- Restore base funding
- Accelerate Ship to WIPP Program
- Consider further enhancement to HandSS 55 facility as currently planned
- Acquire new assay equipment
- Send TRU PACT II to SRS ASAP to get TRU to WIPP (SRS should be high priority)
- Push reduction in time dictated for shipping model

Cost Effective/Risk Reducing Alternatives to Incineration of PUREX Waste

- Stabilizing and burying PUREX is not as good an alternative as CIF. This process may not be permanent and requires long term stewardship. May cost more over long term. Current proposal does not include long term S&M costs. CIF is permanent
- Alternatives to incineration that are effective, safe and cost effective should be considered.

Other

- Retrofit CIF to handle higher concentration, less dilution, burn faster.
- Consider restart of CIF. Recognize incinerator track records are not that good.

All meeting participants reconvened from 2:30 –4 p.m. to discuss the results of the breakout sessions. Several minor changes and additions resulted during this session. The final summary of issues is provided below.

SRS CAB Top-to-Bottom Review Meeting
Summary of Issues

NUCLEAR MATERIALS

Generic Issues

- Long term stewardship should be consideration for all proposals

  Handoff
  Commitment of resources

- Support from Congress for Cleanup Reform Appropriation (CRA) Initiatives
- Does base budget support DNFSB 2000-1 commitments?

  What doesn't get done?

- Need to fund base budget (eg 2000-1) before CRAs
- Relative Priority of Initiatives from Site Perspective
- Make sure you consider surveillance & maintenance issues in F Canyon closure

Accelerate Mission Completion and Minimize Footprint

- Is security risk enhanced with consolidated inventories?
- Lack of reference to Melt & Dilute
- Implementability of long term strategy

  Engineering studies
  $ and timeframe

Minimize Footprint of Ongoing Process Facilities

- Loss of F-Canyon capability vs. having to create new capability
- Shifting future burden to H-Area
- APSF > 235 > FB-Line

  Impact on schedule - overall shortened schedule

- F-Canyon - Disposition of PUREX solvent?
- Solid Waste Proposal

  Does it involve storage @ SRS?

Invest in Current Capabilities and Support Complex Wide SNM Consolidation

- Optimize Spent Nuclear Fuel Storage to support Integrated, Risk-Based SNF Disposition
- Maintain K-area storage capability as standby

  What is cost/benefit risk?

- What does Integrated and Risk-Based mean?

  Facilities, People, (?)
  Process in Canyon
  Direct Disposal
  Co-Disposal

Melt & Dilute
Integrate with other capabilities consistent with ECA initiatives
and other long term strategies

- What is role of regulations in SNF management?
- How does Yucca Mountain play in?

Schedule
Form
Package

- Infrastructure – Is it sufficient? Is there adequate budget to support?
- Ability to deal with damaged/leaking fuel

Invest in Targeted Facilities to Support Complex Wide SNM Consolidation

- What are the priorities?

What comes first … or is it a single option (Pu path needs earlier investment based on risk

Enhance Capability to Support Storage and Disposition of Complex Wide Materials

- Is KAMs adequate for additional receipts … or is expansion required?

How will materials be procesessed/dispositioned?
Prerequisite:
State of SC agreement
Must have Exit Strategy

- Need additional development and dialogue for CAB consideration
- How will any future processes interface w/DWPF?

Other Considerations

- How can we help Nevada? Equity issues
- Need to take credit for closing down F-Area facilities while maintaining core capabilities
- Need to demonstrate how initiatives are integrated in an internally consistent the site proposal
- Make sure stakeholder communications are frequent and thorough (Be able to respond to Devil's Advocate position)

HIGH LEVEL WASTE

Expedite HLW Sludge and Salt Processing

- Get on with low curie salt processing
- Low curie salt to grout is good
- Accelerate waste removal
- DWPF can production should be maximized
- DWPF can base should be 250 per year not 100
- Getting rid of waste in old style tanks should be highest priority

- Integrating salt and sludge processing is good and important. These initiatives should not be separated.
- The redefinition of key radionuclides in DOE Order 435.1 will be important and will help salt processing. Provides relief from Intruder analysis.
- Consider if there is anything else that you could do to expedite salt and sludge processing
- New Salt Processing contractor/facility will require interface between WSRC, DOE and ??. Concern on adequate funding
- Takes too long to get contract written and construction done;

  procedures
  procurements

- Evaluate processing of Solid Waste (CIF) waste streams in Saltstone

Expedite Tank Closure and Processing Facility Closure

- **Getting rid of waste in Tanks should be highest priority**
- Goal should be to close tanks and get on with it
- "Batching" closure of a number of tanks together makes sense (it's ok to leave empty tanks waiting for closure)
- Think about closing F-Tanks first
- Determine the extent and nature of contamination in tanks and tank annuli
- Consider a Corrosion Protection Mechanism
- Consider when liquids should be added to the tanks when waste is removed to determine Tank condition above liquid level
- Consider other closure techniques within the bounds of the current EIS
- Consider grouting of annuli
- Evaluate future re-use of tanks (e.g. MOX)
- Small tank for MOX waste vs. continuing to use existing tanks (acid stream)

Other HLW Topics

- Entire base budget is under funded - competing for a base budget is wrong - DOE had commitments and they should live up to them
- No new commitments should be made until the base is funded
- Competition for the 800M will be keen

  May put Communities at risk

- Processing Am/Cm should be expedited
- Glass Waste Storage Building status—look at dry storage capability, modular storage,

SOLID WASTE

Expedite TRU Waste Shipments to Waste Isolation Pilot Plant

- Send TRU waste to WIPP and out of South Carolina
- Restore base funding
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ENVIRONMENTAL RESTORATION

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