SRS Citizen's Advisory Board

SRS Citizens Advisory Board
July 25-26, 2005
Aiken, S.C.

Monday, July 25, 2005, Attendance

SRS CAB Members		Ex-Officio Members
Meryl Alalof	William Lawrence	Bill Spader, DOE
Manuel Bettencourt	Wendell Lyon	Shelly Sherritt, SCDHEC
Tracey Carroll	Jimmy Mackey	Albert Frazier, GADNR
Leon Chavous	Bob Meisenheimer	Dawn Taylor, EPA
Gerald Devitt	Joseph Ortaldo	
Mary Drye	Karen Patterson	DOE/Contractors
Perry Holcomb	Jean Sulc	Kevin Smith, DOE
Ranowul Jzar	Gloria Williams Way	Helen Belencan, DOE
Bill Lawless	Bill Willoughby	Gerri Flemming, DOE
		Becky Craft, DOE
		deLisa Bratcher, DOE
Stakeholders		Randall Ponik, DOE
Liz Goodsen	Regulators	Doricus Robinson, DOE
Bill McDonnell	Eddie Wright, EPA	Gail Whitney, DOE
Eric Thompson		George Mishra, DOE
Russ Messick		Elmer Wilhite, WSRC
Charlie Hansen		Jim Cook, WSRC
Todd Crawford		Sonny Goldston, WSRC
Cy Bannick		Charles Nickell, WSRC
Mike French		Teresa Haas, WSRC
C.M. Wood		Jim Moore, WSRC
Pete Gray		Joe Carter, WSRC
Rebecca Robbins		Lyddie Broussard, WSRC
Patricia Lee		Dawn Haygood, WSRC
Carol Connell		Paul Sauerborn, WSRC
John Angil		Michael Graham, BSRI
		Susan Dyer, BSRI
		Gerald Lane, BSRI
		Ron Socha, BSRI
		Chris Bergren, BSRI

SRS CAB members Donna Antonucci, Art Domby, Cassandra Henry, Danielle Mackie, Barbara Paul, Dorene Richardon and Carolyn Williams were unable to attend.

Strategic & Legacy Management Committee

William Lawrence, chair, welcomed Todd Crawford, the Acting Chairman of the SRS Health Effects Subcommittee (SRSHES) of the CDC and C.M. Wood of the Center for Disease Control (CDC).

Todd Crawford introduced Patricia Lee, Joe Ortaldo and Jerry Devitt. Mr. Ortaldo is currently serving on the CDC Board and Mr. Devitt just completed his term on the Board. Patricia Lee

currently serves on the CDC Health Effects Subcommittee. Mr. Crawford provided a presentation regarding the SRS Dose Reconstruction Project (see attachment).

There is a CDC Health Effects Subcommittee for each DOE site. The purpose of the SRSHES is to provide public input and recommend future studies to CDC on dose to the public and epidemiological studies around SRS. There were five phases to the dose reconstruction project. In the first phase, they reviewed over 50,000 boxes of log books, diaries and other SRS documents. The phase II report was drafted in September 1998, reviewed by the National Academy of Science in May 2000, and the final report issued in April 2001. Phase III is the current report with draft scenarios and screening calculations. Because of the low doses in the Phase III reports, Phase IV and V were dropped. Phase III report was issued in the fall of 2004 by Advanced Technology Laboratory. It was reviewed by SRSHES in January 2005 and issued for public comment in March 2005.

The family scenario consisted of an adult male and female in 1954, a male child born in 1955 and a male child born in 1964. There were seven family scenarios considered. They consisted of various families living around the vicinity of the SRS with various occupations.

The primary conclusions of the report were that the largest total dose was 940 millirem to the outdoor family child born in 1954 over the 39 year period. The corresponding risk of getting cancer is 0.10 percent and cancer fatality of 0.024 percent. For comparison, the total dose to the U.S. population over 39 years is about 14, 000 millirem. This amounted to the smallest doses of any DOE sites studied by the CDC. Some of the secondary conclusions were that the statistical analyses of the pathways give confidence data on the calculated results. Fish was the most significant pathway for those eating fish from below the SRS. Milk and beef were the most significant pathways for those not eating fish.

The total effective dose to a hypothetical man for over the 39 years averages about six millirem from air and water releases. This is about 234 millirem total from SRS releases. There will be a complete technical review of the report by Dr. Nolan Hertel, Georgia Institute of Technology. Dr. Hertel will give a report on his review at the SRSHES meeting on September 15, 2005 at the Partridge Inn, Augusta, Ga.

C. M. Wood , CDC, can be contacted at cmw6@cdc.gov or (909) 498-1826.

Todd Crawford also reported that there would be a formal press conference on August 11 at the Aiken County Museum to turn over efforts regarding a SRS Heritage Museum from the Citizens for Nuclear Technology Awareness (CNTA) to the SRS Heritage Board.

Waste Management Committee

Bob Meisenheimer, Waste Management Committee (WMC) Chair, opened the meeting with the introduction of the draft recommendation, “Additional Transuranic (TRU) Waste Shipments from Mound.” (See attachment.) He explained that in the past, Mound waste had been shipped to SRS in exchange for the ability to accelerate shipments to Waste Isolation Pilot Plant (WIPP). He said that Mound has requested permission for a small amount of additional TRU waste to be shipped to SRS. He believed that this has been a good process that is good for the taxpayers and

the WMC supports the new shipments provided some consideration is provided to SRS. Upon discussion, Mr. Meisenheimer agreed to modify the recommendation to include specific assurances that SRS could send four shipments of TRU waste for every one shipment of Mound waste received at SRS. He said such a change would be made in preparation for presentation of the recommendation to the full Board.

During a discussion of previously approved WMC recommendations, the following status changes were announced by Mr. Meisenheimer and Joe Ortaldo: Move 216, 210, 209, 200 and 197 from pending to open and close 198 and 155

Stakeholders were reminded that a letter was sent to the New Mexico Environmental Department (NMED) from the WMC. Mr. Meisenheimer explained that this letter was drafted in order to meet the deadline for public comments on the revised modification request to the Hazardous Waste Facility Permit for WIPP. He said that a similar letter will be discussed at the next Board meeting that calls for support of the incorporation of the implementation of Section 311 of Public Law 108-137, and the authorization for remote-handled TRU mixed waste in the WIPP Hazardous Waste Facility Permit.

Mr. Meisenheimer introduced Karen Patterson and asked her to discuss the Draft Low Level Waste and Mixed Low Level Waste National Business Strategy (see attachment). Ms. Patterson said that she had summarized stakeholder comments on the draft document that details a national strategy on addressing legacy wastes needing disposal. Since DOE had requested feedback on how the preliminary strategy could be improved, she had drafted a letter that captures the key concerns identified by the stakeholders. Ms. Patterson said the issues of greatest concern were risk reduction, schedule and cost, and equity. Another concern raised was that the SRS information in the document appeared to be inaccurate. The stakeholders believed that it was not an appropriate basis by which decisions could be made. She explained that the national strategy document was in its very early stages, but she felt it was important that DOE Headquarters communicate directly with the sites to ensure their assumptions are accurate before decisions are made. After some discussion, Ms. Patterson said the draft letter to provide feedback to Headquarters would be presented for full Board consideration at the next day's meeting.

Mr. Meisenheimer announced that the next meeting of the WMC will be held on August 16 but the location and specific agenda have yet to be determined

Facility Disposition & Site Remediation Committee

Integrator Operable Unit (IOU) Status and Update

Brian Hennessey stated the purpose of this presentation (see attachment) was to provide a brief description of the IOU program and status in addition to update evaluations for Fourmile Branch (FMB), Upper Three Runs (UTR) and Savannah River / Floodplain Swamp (SRFS) IOU's. Mr. Hennessey stated that conceptually the IOU program deals with surface water, sediment, groundwater, wildlife, and fish and assesses contaminant levels in all these media. Other receptors include the microorganisms found in the water. Analysis is conducted and actions will be taken to reduce contamination at its source, typically called waste units. Mr. Hennessey stated that SRS considers an array of involvement from other sources, such as academia, Citizens Advisory Board, Georgia Department of Natural Resources, Public, Department of Energy,

South Carolina Department of Health and Environmental Control, Natural Resource Trustees, Environmental Protection Agency and others.

The IOU program has three distinct phases. Phase one consists of the work plans, phase two consists of collecting and evaluating data, prioritizing IOU's, conducting early actions if required, and producing periodic reports. Phase three consists of remedial investigations and feasibility studies leading to a final IOU remedial action. Mr. Hennessey stated the IOU schedule is as follows:

IOU	Phase II	Record of Decision
• Steel Creek	ongoing	March 2021
• Savannah River / Swamp	ongoing	June 2024
• Fourmile Branch	ongoing	June 2023
• Lower Three Runs	ongoing	March 2016
• Pen Branch	ongoing	June 2020
• Upper Three Runs	ongoing	March 2023

Jerry McLane, BSRI, spoke about IOU evaluation efforts and early actions that have been implemented. Mr. McLane explained the evaluation effort studies the following:

- Methodology for Identifying IOU Data Needs
- Human Health and Ecological Threshold Screening
- Bioassessment Monitoring
    - fish assemblage assessment
    - macroinvertibrates (aquatic insects)
    - fish tissue evaluation
- Special Studies
    - radio tracking (savannah river and steel creek)
    - fish eating bird prey survey
    - herpetofauna survey is proposed
- Wildlife Survey, receptor models, etc.

Mr. McLane identified early actions implemented:

- Sign Placements
    - along highway 125 road crossing and streams
    - Savannah River
    - FMB: along stream access points (2003)
    - Steel Creek: along stream access points (2003)
    - LTR: along the tail access points (2004), Fact Sheet provided to public (2004), installed fences to restrict access along the tail (2005)
    - Numerous signs for site worker protection (ongoing)

Susan Dyer, BSRI, continued the presentation, reviewing FMB, Upper Three Runs, and SRFS. FMB conducted the following:

- Human Health Evaluation

- Benchmark evaluation based on onsite worker and subsistence fisherman found Cesium 137 in the sediment and floodplain soil, none in the surface water and there is no new data for fish
- Early actions were implemented in the middle of FMB for Cesium 137, and no additional early actions are warranted

- Ecological Evaluation
  - Ecological exceedances for sediments, sediment/soil and surface water for selected metals (cadmium, copper, lead, mercury, zinc, etc.)
  - In middle FMB, there were exceedances for metals plus low biotic integrity (fish and microinvertibrates), requiring sediment, surface water, and fish tissue data collection
  - In upper FMB, there is low biotic integrity (fish and microinvertibrates), requiring sediment, surface water, and fish tissue data collection

Upper Three Runs conducted the following:

- Human Health Evaluation
  - No constituents warranted early action consideration
- Ecological Evaluation
  - Low biotic integrity (macroinvertebrates and fish)in Tims Branch and Steed Pond
  - Further evaluation for copper in Crouch Branch

Savannah River / Floodplain Swamp conducted the following:

- There was a previous early action (radiological postings) at Steel Creek delta and the access to site streams via the Savannah River
- Human Health Evaluation
  - Receptors: resident (surface water), subsistence fisher (fish), adolescent trespasser (sediment and floodplain soil), recreational hunter (game)
    - Game - Cesium 137; there were 17 exceedances out of 3808 samples, but none exceeded the DOE release criteria
    - Fish – Upper Savannah River: arsenic, thalium, mercury; D-area and TNX: mercury; UTR: arsenic, radionuclides do not warrant early action consideration
    - Sediment: none
    - Floodplain Soil: Cesium 137 low frequency of exceedance
    - Surface water: arsenic, beryllium, iron, lead, thallium, radium-226 exceed residential drinking water screening levels but the exceedances do not warrant early action consideration
- Ecological Evaluation
  - Typical fish and macroinvertibrate evaluations are not applicable to large river (Savannah River)
  - Other biological indices
    - Philadelphia Academy of Science
    - Other River studies
  - Lower reaches of site streams show good biotic integrity
    - Fish assemblage, microinvertebrates, fish health assessment, larval fish
  - Background is an issue (contaminants upriver of SRS)

In summary, Ms. Dyer stated that the IOU program will continue to assess the site streams; early actions will be implemented as needed, supported by early action fact sheets or other communications as necessary; phase III (final action) requires refinement for the IOU evaluation process defining background, final receptors, and ecological endpoints; and the CAB will continue to be updated on IOU activities.

Perry Holcomb asked if the current reduction in forces at the Savannah River Ecology Lab is detrimental to the IOU progress. Ms. Dyer stated that it would have an effect; however, the program will maintain its schedule of deliverables. Bill Lawless asked about the low biotic activity in Upper Three Runs. Ms. Dyer stated that although the IOU schedule is far into the future, that sampling and diagnosis continue regardless and early actions will continue.

Deactivation & Decommissioning (D&D) Program Update

Helen Belencan, DOE, stated the purpose of the presentation (see attachment) was to provide a brief update on D&D recent accomplishments and to discuss ongoing regulatory and upcoming stakeholder involvement activities. Ms. Belencan stated that there have been nine briefings on D&D since May of 2003.

Ms. Belencan noted that the D&D program utilizes a graded approach based on the complexity of the work. As the work increases in complexity, so too does the involvement and engineering detail and public involvement. Ms. Belencan stated the original scope called for 242 buildings to be undergo D&D between Fiscal Year (FY) 2003 and FY 2006. That number has changed to 252 and the number of completions through June 2005 is 150. Current work in progress is as follows:

- 723-F Site Laundry
- 305-A Test Pile Building
- 777-10A Physics Laboratory
- 420-2D Rework Handling Facility
- 247-F Naval Fuels Facility
- 321-M Manufacturing Building
- 211-F Canyon Outside Support Facilities
- 211-3F Truck Unloading Shed
- 221-1F A-Line

Ms. Belencan stated that regulatory interactions continue with EPA and DHEC, on waste disposal practices, regulatory framework for decommissioning canyons and reactors and proposed amendments to the FFA, specifically the addition of Appendix K. Regarding stakeholder communications activities, the *Environmental Bulletin* will address D&D activities to a broader audience and will be published quarterly. As a result of input at a recent FD&SR Committee meeting, an EE/CA workshop is tentatively scheduled for October 18, 2005 and will give an overview of the CERCLA non-time critical removal process. In conclusion, relative to EE/CA facility decommissioning, there are three EE/CAs scheduled as follows:

- 211-3F Truck Unloading Shed goes for public comment in October 2005
- 211-F Canyon Outside Support Facilities for public comment in January 2006
- 211-1F A-Line for public comment in February 2006

Jimmy Mackey asked about the status of 211-1F. Ms. Belencan stated that deactivation was not complete at this time, but that the EE/CA would address the end state of the facility.

Nuclear Materials Committee

Jerry Devitt, Nuclear Materials Committee (NMC) Chair, opened the meeting by stating that the NMC had recently heard about proposed plans for a limited amount of Plutonium (Pu) 238 to be brought to SRS for processing. Based on what the NMC has learned, he said the committee has drafted a recommendation on the topic. He introduced Charles Nickell, WSRC HB-Line Facility Manager, and asked that he provide some background information to assist those present in understanding why the NMC believes CAB action is needed.

Mr. Nickell began by explaining that this mission was still in the very early stages and stakeholder input was welcomed. He explained that the Pu238 in question was made at SRS and sent to Hanford in the 1960s for experiments that were never conducted. Upon cancellation of the experiments, the material was placed in retrievable storage. According to Mr. Nickell, it has been determined that it is now necessary to disposition the material. While it has not been formally decided, he said that it appears that SRS is thought to be the most attractive option under consideration since it has the facilities and experienced personnel in H Area to handle the material.

Mr. Nickell described the material as a low assay oxide that is very similar to other residues processed in H Area. While the material is now stored in 12 drums at Hanford, the preliminary plans call for drum integrity to be verified prior to shipment to SRS for just-in-time processing. Under this concept, the drums are shipped in small quantities so that upon receipt, the drums can be unpacked inside a contamination control area and processed in the HB-Line dissolvers. He said one issue yet to be resolved is whether or not there is a programmatic need for the material or if it should be disposed of as a waste.

After a detailed explanation of packaging and transportation requirements, Mr. Nickell discussed the various advantages to this proposal. He pointed out that under this proposal, Hanford would pay for all aspects of this disposition effort. He stated this material could be processed in H Area without impeding other efforts or significantly contributing to the waste steam.

Karen Patterson opened the discussion of the "Hanford Limited Plutonium Disposition Mission" draft recommendation (see attachment). She explained that while the CAB had previously made Pu disposition recommendations in the past expressing concern about Pu coming to SRS, this draft motion specifically addresses a small, discrete group of Pu with a viable and demonstrated disposition path. Ms. Patterson said the focus of this recommendation is to ensure that while the CAB supports this mission, they want to be sure DOE continues to keep them informed prior to making any decisions about bringing material to SRS.

Ms. Patterson fielded some questions about the draft recommendation and agreed to rework portions of the draft recommendation prior to presenting it to the full Board.

Mr. Devitt announced that the next meeting of the NMC will be held on August 22 in Aiken but the location has yet to be determined.

Tuesday, July 26, 2005, Attendance

SRS CAB Members		Ex-Officio Members
Meryl Alalof	William Lawrence	Bill Spader, DOE
Manuel Bettencourt	Wendell Lyon	Shelly Sherritt, SCDHEC
Tracey Carroll	Jimmy Mackey	Dawn Taylor, EPA
Leon Chavous	Bob Meisenheimer	
Gerald Devitt	Joseph Ortaldo	
Mary Drye	Karen Patterson	DOE/Contractors
Perry Holcomb	Jean Sulc	Terry Spears, DOE
Ranowul Jzar	Gloria Williams Way	Bill Clark, DOE
Bill Lawless	Bill Willoughby	Kevin Smith, DOE
		Gerri Flemming, DOE
		Becky Craft, DOE
		Tom Treger, DOE
Stakeholders	Regulators/Commission	Randall Ponik, DOE
Murray Riley	Chuck Gorman, SCDHEC	Doricaus Robinson, DOE
Bill McDonnell	Don Siron, SCDHEC	Phillip Prater, DOE
Russ Messick	Eddie Wright, EPA	Don Blake, DOE
Eric Thompson	Anna Bradford, NRC	Bob Pedde, WSRC
Charlie Hansen	Christianne Ridge, NRC	Jack Devine, WSRC
Lou Zeller	Scott Flanders, NRC	Teresa Haas, WSRC
Bernard Jones	Ted Carter, NRC	Paul Sauerborn, WSRC
	Cynthia Mortan, SCDHEC	Jim Moore, WSRC
		Joe Carter, WSRC
		Lyddie Broussard, WSRC
		Dawn Haygood, WSRC
		John Dickenson, WSRC
		David Little, WSRC
		Elmer Wilhite, WSRC
		Sonny Goldston, WSRC
		Tiajuana Cochanauer, USFS

SRS CAB members Donna Antonucci, Art Domby, Cassandra Henry, Danielle Mackie, Barbara Paul, Dorene Richardon and Carolyn Williams were unable to attend. The meeting opened with Bill Spader, DOE, serving as Designated Federal Official. Mike Schoener served as facilitator. The meeting was open to the public and posted in the *Federal Register* in accordance with the Federal Advisory Committee Act.

Approval of the Minutes

The meeting minutes of May 23-24, 2005, were approved with one minor change.

Agency Update

Bill Spader, DOE, announced that Kevin Smith was appointed as the alternate Designated Federal Official for the SRS CAB replacing Charlie Anderson. Mr. Spader noted other key appointments. David Garman was confirmed as Under Secretary and Jim Rispoli has been through one of two senate confirmation hearings for Assistant Secretary. Mr. Spader reported

that the SRS End State Vision should be finalized and forwarded to HQ as Final document that day and will be reviewed annually with the CAB. Regarding Savannah River Ecology Laboratory funding, DOE committed $4.3 million- a combination from EM and NNSA through June 2006. Mr. Spader asked Teresa Haas to give a status of workforce restructuring. In December, WSRC announced its intent to restructure. The workforce business case strategy clearly defines need for reduced staffing and personnel changes, she said. A total reduction of 1200 positions in 2 phases in 2005 and additional 600-800 positions in FY06 were identified. In Phase I, 625 employees left voluntarily and 175 involuntarily. In Phase II, 400 employees were involuntarily separated. Phase III will take place between October and January of the calendar year.
WSRC President Bob Pedde noted that the focus is on new missions. SRS is not a closure site and the question is how large is that valley we go through before new missions start up. The MOX program will get started in next few months. Mr. Pedde commented that there are a number of other things being considered, including working with commercial utilities and commercial reactor. Mr. Pedde commented that due to a higher than expected attrition rate, the expectation is not to come close to 500-800 reduction in Phase III. He stated WSRC is getting close to the right balance right now. Mr. Pedde responded to questions regarding future missions and the ability to attract young engineers to SRS.

Dawn Taylor, EPA, reported that EPA has a new Administrator, Steve Johnson, a career EPA employee who worked in air. She also introduced Eddie Wright, the new community involvement coordinator. She noted there is a Federal Facility Agreement (FFA) modification meeting next week to bring D&D into the FFA and have a way of keeping administrative track of those units. Regarding the disposal of D&D waste, Ms. Taylor noted that the Core Team is working through these issues. EPA is not familiar with slit trenches, so SRS has been forthcoming with info to bring them up to speed. Ms. Taylor also noted disposition of canyons and reactors and discussions with their EPA Hanford counterparts. U Canyon at Hanford is going through the review process. EPA is leaning toward a remedial process for the SRS canyon and she stated she was optimistic.

Shelly Sherritt, SCDHEC, noted the Core Team has resolved difficult issues and hope to resolve those on the plate now. She stated SCDHEC had met with New Start, a consortium of companies seeking to locate a new commercial reactor at SRS. She said the meeting was to lay out permit requirements- a very typical business practice. The actual permit application date is several years in future and this meeting was very preliminary. Ms. Sherritt again noted the high level waste tanks as the single highest level risk at SRS. SCDHEC is concerned about the progress. The amendments were passed last year to clear cobwebs and SCDHEC is looking for the process to get started. Ms. Sherritt noted that SCDHEC is following the waste determination process and monitoring it closely to keep the focus on maintaining momentum to reach the ultimate goal-closure of HLW tanks.

Public Comments

There were no public comments during this session.

Chairs Update

Jean Sulc noted that the SSAB Chairs meeting will be held in Idaho the third week of September. The focus will be waste disposition.

Facilitator Update

Mike Schoener presented the Recommendation Summary Report (see attached). Twelve recommendations are pending, 27 open and 177 closed. Mr. Schoener also noted that the CAB would hold a process retreat October 6-7 near Charleston, S.C. He requested any topics of concern for discussion from CAB members.

Waste Management Committee

Draft Salt Waste Determination

Scott Flanders, Nuclear Regulatory Commission (NRC), provided a presentation on the U.S. NRC review of the draft determination for salt waste disposal at SRS (see attachment). He described his organization and division and then provided some background information on waste incidental to reprocessing (WIR). The concept of incidental waste is that management of waste can be based on the risk that the waste poses to human health and the environment, rather than the origin of the waste. For wastes that result during the reprocessing of spent fuel, some require disposal in a geologic repository while some do not. Mr. Flanders discussed the history of WIR criteria and NRC involvement in the WIR. In the past DOE has asked NRC to provide technical advice and consultation on its methodology and conclusions of WIR determinations. NRC had no regulatory authority. The National Defense Authorization Act required DOE to consult with NRC on all of its determinations for SRS and Idaho. The Act sets the criteria to be used in waste determinations. NRC and DOE entered into an Interagency Agreement to provide funding in FY05.

Mr. Flanders discussed the major steps of the NRC review and then discussed the Saltstone Review. DOE submitted the draft waste determination for saltstone on February 28, 2005. NRC performed the technical review of the document and supporting information, including the performance assessment. A request for additional information was transmitted to DOE on May 26, 2005. Mr. Flanders discussed the areas addressed in this request for information (about eighty questions), including removal of highly radioactive radionuclides to the maximum extent practical, waste characterization, performance assessment and clarifications. NRC is still conducting its review and has not yet reached any conclusions. The NRC request for information was focused on areas that the staff believes are important to showing compliance with the NDAA criteria. NRC evaluation will provide an independent analysis of DOE's proposed approach. NRC plans to hold an open meeting on July 27 to discuss DOE's responses to the request for information. Mr. Flanders concluded by discussing public openness in the entire process and providing contact information.

Mr. Flanders responded to questions and comments regarding the timeline, the standard review plan, the definition of highly radioactive radionuclides, the timing of the Idaho waste determination document, risk perception versus a risk-informed approach; the lack of notification for a July 27 open meeting; and the need to keep to the two month schedule in completing the technical review.

Waste Tank Leak and Crack History

David Little, WSRC, provided a presentation on waste tank leak and crack history (see attachment). Mr. Little discussed the goals, capabilities and results of the Liquid Waste Disposition Project Tank Inspection Program. He provided a waste tank leak history and discussed recent inspection results and elements of the Tank Inspection Program. The goals of the Tank Inspection Program are to ensure tanks are capable of performing their function safely;

degradation mechanisms are known and follow predictive models; and early detection of degradation and effective mitigation. Mr. Little discussed the tank history for all four type waste tanks, describing in detail the tank designs; the anatomy of a wall crack; and why the early style tanks leaked. Later tank construction incorporated lessons learned. Recent inspection results show leaks to the annulus of Tanks 5, 6, and 12.

Mr. Little discussed early visual inspections by direct periscope versus today's visual inspections which use direct photography and ultrasonic inspections. Early inspections began in the early 1960s. Mr. Little discussed the In-Service Inspection Program, which collects over 1.5 million data points per tank. A typical inspection requires three weeks for data collection. Wall integrity is known and continues to be monitored. Mr. Little concluded noting that the Waste Tank Inspection program is a key element in the continued safe processing of radioactive waste at SRS. Degradation mechanisms for old style tanks are understood. Lessons learned regarding degradation mechanism addressed during Type III tank construction and ongoing monitoring confirms modifications were successful. Waste tank operating limits and monitoring protocols have been implemented for both safe storage and retrieval of the waste.

Mr. Little responded to questions regarding inspections on Tank IV tanks, seismic evaluations, actions taken when leaks are discovered, and the total number of leak sites.

Additional TRU Waste Shipments from Mound

Bob Meisenheimer presented a draft motion regarding additional TRU waste shipments from Mound (see attachment). Mound and SRS have agreed that SRS will send four shipments of TRU waste from SRS for every one shipment of Mound waste sent to SRS. The last receipt of Mound TRU waste occurred in September 2003 until recently when Mound requested permission to send an additional 60 to 70 cubic meters of TRU waste already in WIPP-approved shipping containers. Therefore, the committee motion asked that DOE assure that SRS send four shipments of TRU waste from SRS for every one shipment from Mound; that DOE notify the CAB as soon as possible if it is considering sending any additional TRU waste from other DOE sites to SRS; and that DOE consider the following before additional TRU waste shipments from other DOE sites are received at SRS:

- WIPP certification equipment is fully operational
- Assurances that SRS TRU waste shipments to WIPP do not get delayed by other DOE sites
- Acceleration of available shipping containers for non-drummed (TRUPACT III) and high activity drums (Arrowpak) TRU waste
- Provide a disposition path for all SRS TRU waste, particularly that waste with no defined final disposition

Following brief clarifying modifications, Jimmy Mackey moved the Board adopt the motion and Bill Lawless seconded. The motion was approved unanimously by a vote of 18 members in favor.

Bob Meisenheimer presented two draft letters for board approval. The first letter transmitted comments regarding a Waste Isolation Pilot Plant permit modification to the New Mexico Environment Department (see attachment). The second letter transmitted comments on a draft

Low Level Waste/Mixed Low Level Waste National Business Strategy (see attachment). By a show of hands, the Board approved transmittal of both letters.

Public Comments

Lou Zeller, Blue Ridge Environmental Defense League (see attachment)

"On behalf of the Blue Ridge Environmental Defense League and our members in the Central Savannah River Area, I would like to bring an urgent matter to the Citizens Advisory Board. The issue at hand is the ongoing environmental clean up at the Savannah River Site and its impact on SRS employees and the general public. The environmental cleanup has gone awry and tens of millions of tax dollars have been wasted. We call upon the Savannah River Site Citizens Advisory Board to use its powers to bring an end to a decade of delay at the old weapons plant. The current Savannah River Site Environmental Management Integrated Deactivation and Decommissioning Plan (issued by WSRC in 2003) maps out the removal of 225 facilities at SRS by September 2006, when the current Westinghouse contract with DOE expires. But in April the DOE Inspector General issued an audit report on the status of the SRS clean up program which finds that this target will not be met without a major overhaul. More disturbing is the finding that about 67% of facilities deactivated and decommissioned by WSRC through August 2004 "posed little or no potential risk to the environment, workers or public" and 22 facilities that did pose risk had not even been scheduled for D&D. Further, the IG found that, had the Department concentrated on closing the high-risk facilities, it could have saved the taxpayers approximately $2.2 million per year in avoided surveillance and maintenance costs. The report's principal findings:

> We determined that the Department has performed deactivation and decommissioning activities on 55 facilities that posed no potential risk to the environment, workers, and/or the public and provided minimal reduction in surveillance and maintenance costs. Additionally, some of the facilities that did pose an environment safety and health (ES&H) risk were not scheduled for closure or included in the scope of the current contract.

For example, the facility which poses the largest potential environment, safety and health risk, the 242-H IH Evaporator, will not be deactivated before FY 2007. Oddly, the main cafeteria, which posed no risk, was dismantled."

"DOE-EM claims that the approach at SRS was similar to those at other accelerated closure sites (Rocky Flats, Fernald, Mound and Columbus). But comparisons with DOE-EM activities at other sites are misleading. For example, the Richland office lacks a comprehensive facility disposition plan and a discrete budget, rendering useless D&D cost comparisons between Hanford and SRS. There is a history of similar delays which dates back nearly a decade. A 1997 audit by the IG found similar pattern of inaction by the principal contractor (WSRC), leading to unnecessary costs for maintenance and surveillance. The purpose of this audit was to determine whether the Savannah River Operations Office and WSRC had economically and promptly deactivated, decontaminated, and disposed of surplus facilities at the Site. The Inspector General's report noted that SRS had 162 "surplus facilities" and would possibly add 118 more during the next five years; WSRC decontaminated only one.

> "Departmental regulations require that surplus facilities be deactivated, decontaminated, and disposed of economically and promptly. However,

Westinghouse only disposed of one facility and did not completely deactivate or decontaminate any of the 162 facilities identified as surplus at the Site in FY 1996."

"The cost of this delay to the taxpayers since 1997 has been $1.3 million per year for additional maintenance and surveillance of these useless facilities. These costs could have been avoided with a single expenditure of $1.2 million for deactivation of the P-reactor process-water storage tanks, monies which were available to the DOE in unobligated FY 1996 operating funds. Inexplicably, rather than perform the economically beneficial cleanup, the DOE returned these unobligated funds to DOE-HQ in 1997."

"In a March 2005 letter to WSRC's Closure Business Unit, DOE-SR notes that there is a negative safety trend in Site Deactivation and Decommissioning and the Soil and Groundwater Closure Project and that corrective actions have not been effective. The letter cites numerous safety lapses, inadequate control of SGCP subcontractors, and concludes that WSRC and BSRI personnel lack "clear lines of authority, responsibility and communication." In one example, the DOE points to a P-Basin "hazardous energy control incident" warranting immediate management attention. The record shows that the accelerated remediation and facilities closure process has not reduced risk to the public and that worker safety at the site has been found wanting. Further, there is a pattern of delay which warrants full investigation. The documents attached to this letter provide ample justification for a SRS Citizens Advisory Board recommendation for a full inquiry and a complete overhaul of the site deactivation and decommissioning program."

Bill Lawless
The CDC study shows that releases to the public are extremely low. Mr. Lawless congratulated SRS on a decade of acceleration but noted that this good news comes at the expense of workers who have to be laid off and he asked all to be mindful of people losing their jobs.

Nuclear Materials Committee
Karen Patterson presented a draft motion on behalf of the committee regarding a limited plutonium disposition mission from Hanford (see attachment). Twelve drums of plutonium (Pu) oxide matrix (known as Hanford Pu238 material), produced in the old HB-Line at the Savannah River Site (SRS), were transferred to Hanford in 1966 for critical mass experiments. The critical mass experiments were never performed as a sufficient amount of material could not be made available and the material remained untouched in storage until 1980 when the 12 drums were placed in retrievable storage at Hanford. The 12 drums contain approximately 5.3 kilograms of nuclear material.

The SRS CAB has voiced its opinion that SRS not take any plutonium until a viable disposition path is available. Very recently, the CAB also asked that DOE stop all shipments of weapons grade plutonium to SRS until five percent of the existing quantities of stored plutonium at SRS had been dispositioned successfully. The SRS CAB understands that there could be a need to ship small quantities of excess plutonium from samples, standards, and research-related materials to SRS. By using the term "DOE excess weapons grade plutonium," the SRS CAB meant to exclude these small quantities from the recommendation. In that same recommendation, the SRS CAB stated that H Area should be considered for processing plutonium until the planned plutonium vitrification facility is operational. The SRS CAB has long recognized the Pu

processing capabilities of SRS and the benefits of such to the DOE complex. The SRS CAB has been and continues to be supportive of processing small amounts of Pu at SRS, especially when existing SRS facilities can be used, it provides national benefit, and does not negatively impact the SRS budget.

Therefore, the motion supports the limited Hanford Pu disposition mission, but noted however, this position does not provide DOE with an unconditional endorsement to ship small quantities of plutonium to SRS without prior notification. It recommended that DOE utilize the SRS HB-Line to dissolve and process the Hanford Pu and report the status to the SRS CAB as soon as it's known, whether the material will be purified and converted for programmatic need or transferred to a sludge batch for immobilization in DWPF. It also recommended that DOE notify the SRS CAB before shipping any other quantities of plutonium to SRS from other DOE sites, except samples, standards and research related materials.

Bill Lawless requested an addition to the recommendation comment section regarding equity issues. Following extensive discussion and modification of the addition, he called the motion and Jimmy Mackey seconded. The motion passed by a vote of 16 members in favor and two abstentions by Manuel Bettencourt and Ranowul Jzar, both of whom stated the additions to the motion were unnecessary.

Facility Disposition & Site Remediation Committee

Ed McNamee, BSRI, provided an annual update on F/H Area Groundwater (see attachment). The purpose of the presentation was to provide a status on progress of the area and to demonstrate the potential success of the new barrier wall deployment in lieu of pump-and-treat. Mr. McNamee discussed the F/H Area plume locations, the contamination path to Fourmile Branch, the clay in the vicinity of F Area, and the clay confining zones. He discussed deep soil mixing resulting in a wall 2 feet thick that employs an acid-resistant grout. He also showed photographs of barrier placements. The barriers are anticipated to redirect flow of groundwater so as to reduce the spread of contamination to Fourmile Branch and its seeplines. Base injection complemented the barrier wall at F Area to reduce metal concentrations in the groundwater. The objective of the base injection is to raise the pH and reduce the mobility of the metals/radionuclides. Mr. McNamee discussed the pilot test results, which saw a broad range of response in contaminants and metals. The first injection campaign resulted in 18 million gallons of F-Area base injection in the barrier area successfully reducing the mobility of metals. The second injection campaign resulted in over 1 million gallons of base injected in the F Area gates. Time is needed to allow the base to reach the seepline. There is however a change in the groundwater gradient starting on the downstream barrier walls and is working as anticipated.

Discussion revolved around tritium concentrations; long term resource protection; and enforcement of regulations.

Administrative Committee

Meryl Alalof noted the ongoing membership solicitation campaign and encouraged members to find good candidates. She also presented the SRS CAB budget summary (see attachment). Board expenditures to date total $165,865.

Strategic & Legacy Management Committee

William Lawrence made several announcements regarding upcoming meetings, including a meeting regarding the Heritage Center in August. Jimmy Mackey announced he was to meet with Jim Buice of DOE regarding the SRS budget on July 27 and will provide a report to the full Board.

Public Comments

Lou Zeller commented that he has not received a written response from the SRS CAB regarding his previous comments. "Madam Chairwoman, over the last four months I have endeavored to point out serious deficiencies in the Department of Energy's environmental management program at SRS. To date, I have received no reply from the CAB or anyone at DOE-SR or WSRC. The Board's policy of allowing public comment at meetings I believe is well intentioned, but with neither a written record nor follow up, the interested public has no assurance that our concerns are taken seriously. As you know, the mission statement of the CAB states: "Two important goals of the Board are to improve two-wav communication with the SRS impacted communities and to ensure that stakeholders are given an opportunity to become involved in the decision-making processes of DOE, EPA, SCDHEC and SRS management."
My final recommendation to you today is that the CAB adopt a formal policy of reciprocal interaction with the public."

Handouts

July 25-26, 2005 Agenda

Aiken Standard Article, dated July 18, 2005

SRS Dose Reconstruction, Todd Crawford, SRSHES

Draft Letter to Melissa Nielson, dated July 26, 2005

Additional TRU Waste Shipments from Mound, Third Draft, Bob Meisenheimer, CAB

Integrator Operable Unit Status and Update, Brian Hennessey, DOE

Deactivation & Decommissioning Program Update, Helen Belencan, DOE

Hanford Limited Plutonium Disposition Mission, First Draft, Karen Patterson, CAB

Proposal for Limited Pu238 Mission, Charles Nickell, WSRC

SRS CAB Recommendation Summary

SRS Gold Metrics

U.S. NRC Review of Draft Determination for Salt Waste Disposal, Scott Flanders, NRC

Implementation of NRC Responsibilities; Policy Issues; June 30, 2005 Memorandum

Tank Leak and Crack History, David Little, WSRC

Additional TRU Waste Shipments from Mound, Final Draft, Bob Meisenheimer, CAB

Draft Letter to Frank Marcinowski, dated July 26, 2005

Draft Letter to Steve Zappe, NMED, dated July 26, 2005

Hanford Limited Plutonium Disposition Mission, Final Draft, Karen Patterson, CAB

F/H Area Groundwater Status and Annual Update, Ed McNamee, BSRI

SRS CAB Fiscal Year 2005 Budget Summary

NEPA Report

SRS CAB Calendar