

**Environmental Management Site-Specific Advisory Board Chairs' Meeting**  
**Meeting Summary**  
**April 23-24, 2008**  
**Richland, Washington**

The Environmental Management (EM) Site-Specific Advisory Board (SSAB) met April 23-24, 2008, at the Red Lion Hanford House in Richland, Washington. The EM SSAB for the U. S. Department of Energy (DOE) Richland Operations Office and the Office of River Protection hosted the meeting. Participants included Chairs, Vice Chairs, Co-Chairs, other EM SSAB members, DOE Headquarters (HQ) and field staff, site coordinators, EM SSAB administrators, and support staff. The meeting was facilitated by Lori Ramonas. Many of the meeting attendees participated in a tour of the Hanford Site on April 22, 2008.

**Participants:**

- Hanford Advisory Board: Susan Leckband, Chair; Rick Jansons, Vice-Chair; Shelly Cimon, Member; Harold Heacock, Member; Pam Larsen, Member; Laura Mueller, Member; Karen Lutz, Federal Coordinator; Kim Ballinger, DOE-RL; Barbara Wise, Support Staff
- Idaho National Laboratory Site Citizens Advisory Board: Richard Buxton, Co-Chair; Bill Flanery, Co-Chair; R.D. Maynard, Member; Doug Weir, Member; Lisa Aldrich, Support Staff.
- Nevada Test Site Community Advisory Board: David Hermann, Chair; Walt Wegst, Vice-Chair; Rosemary Rehfeldt, Support Staff; Kelly Snyder - DOE
- Northern New Mexico Citizens Advisory Board: J.D. Campbell, Chair; Ralph Phelps; Menice Santistevan, Support Staff; Christinia Houston - DOE
- Oak Ridge Site Specific Advisory Board: Darryl Bonner, Member; Steve Dixon; Ted Lundy; Spencer Gross, Support Staff; David Alder - DOE
- Paducah Gaseous Diffusion Plant Citizens Advisory Board: Allen Burnett, Chair; Judith Clayton, Member; Johnny Clayton; John Russell, Member; Eric Roberts, Support Staff
- Savannah River Site Citizens Advisory Board: Donna Antonucci, Chair; Ranowul Jzar, Vice-Chair; Sheron Smith-DOE
- DOE Headquarters:  
James A. Rispoli, Assistant Secretary for Environmental Management  
Douglas Frost, DFO, Office of Public and Intergovernmental Accountability  
Christine Gelles, Director, Office of Disposal Operations  
Mark Gilbertson, Deputy Assistant Secretary for Engineering and Technology  
Melissa Nielson, Director, Office of Public and Intergovernmental Accountability  
Merle Sykes, Director for the Office of Strategic Planning and Analysis
- DOE RL/ORP:  
David Brockman, Manager, Richland Operations Office  
Shirley Olinger, Manager, Office of River Protection
- Other: Jane Hedges, Dennis Faulk, Ed Revelle, Sharon Braswell, Annette Cary, Gene Kinsey, Steve Crowell, Peter Bengtson, Carl Holder, Don Meyers, Barry Moravek, Kim Swentik, Barbara Carpenter, Dragana Etheridge, Billie Mauss, Keith Klein

## **Opening Remarks**

Ms. Lori Ramonas, the facilitator, welcomed all of the meeting participants and discussed the ground rules for the meeting.

Ms. Shirley Olinger, Manager of DOE's Office of River Protection, thanked the members for coming and participating in yesterday's tour. She welcomed the complex-wide perspective and lessons learned shared by the members. Mr. David Brockman, Manager of DOE's Richland Operations Office, welcomed the members to Hanford and the Tri-Cities and thanked them for the important work they do. He recognized the hard work of Ms. Leckband, Chair of the Hanford Board (HAB), and Ms. Cimon, the HAB's national liaison. Ms. Jane Hedges, Washington State Department of Ecology, extended a welcome and talked about the importance of the national perspective this group brings to cleanup. Mr. Dennis Faulk, U.S. Environmental Protection Agency, spoke of the invaluable institutional knowledge Board members hold and that they are the watch dogs who help the agencies identify those issues of real importance. Mr. Ed Revelle, Chair, Hanford Communities, extended a welcome to the members on behalf of the cities and Hanford Communities. He spoke of the complexities and enormous challenges facing Hanford cleanup and the tremendous progress made. He spoke of the continued partnership with DOE and its role in diversifying the area through advances in education and research.

Ms. Nielson noted that Mr. Rispoli had two advisory boards – the EM SSAB and the Environmental Management Advisory Board (EMAB). EMAB functioned in the role of a corporate board to Mr. Rispoli. She noted that Mr. Keith Klein, a member of EMAB, was in attendance representing that Board and encouraged EM SSAB members to share their thoughts with him. She stated she would like to strengthen the synergy between the two Boards.

Ms. Leckband welcomed members and was glad many of them participated in the Hanford tour. She provided members copies of the Hanford Visitor Orientation Handbook and two pieces of HAB advice: Advice #173: Central Plateau Values Flow Chart and Advice #197: Groundwater Values Flow Chart. She indicated that these pieces of advice serve as a roadmap for Hanford cleanup decisions and are being used by the agencies. She felt they were applicable for similar decisions across the DOE complex.

Mr. Campbell commended everyone on the tour, which he enjoyed. He felt that the B Reactor deserved preservation. He stated that Ralph Phelps had some good ideas on how to expedite the process by which the EM SSAB chairs adopt and issue recommendations. He thought it might be a potential product from this group that he would be willing to champion.

Ms. Antonucci thanked everyone for the wonderful tour. She noted that the Hanford Cold Test Facility was similar to the one in Savannah River. She commented on the visual aids she saw on the tour, which she thought were almost museum quality. She wanted to know if Hanford gets a lot of requests for tours. Ms. Leckband said there were enormous requests for tours. The public interest in Hanford from cleanup and historical perspectives is incredible. She noted that DOE had increased the number of tours for the general public to 28/year. These public tours are in addition to the frequent tours held for national and state officials.

## **EM Program Update Presented by Jim Rispoli, Assistant Secretary for Environmental Management, DOE EM**

Mr. Rispoli said he looked forward to having the opportunity to meet with the chairs and vice chairs. He found these meetings very helpful, especially the top three issues from each site. He

thanked the members for their public service. He noted that cleanup work at the Sites was not easy and that thousands of people were doing work safely in a hazardous setting. No one else in the world is doing this kind of work and there is nothing against which to benchmark this work. He noted that stakeholders, tribes, regulators and contractors each bring their own perspective, which he welcomed. He noted that the issues may be difficult and contentious, but that “we” do not need to be contentious. “We can work together.” He stated how much he and the site managers appreciated the EM SSAB members and the time they dedicated to working on these issues and that he looks forward to dialoguing with them.

He provided participants with an update on the EM program. DOE manages the largest environmental cleanup program in the world with 34,000 workers, 80+ million gallons of liquid radioactive waste, some of the most dangerous substances known to humanity, and 4500 facilities to cleanup/demolish and it is being done safely – DOE’s #1 priority. Mr. Rispoli stated that this year’s budget will not be ample to meet all the regulatory agreements and DOE was looking to reduce risk while maximizing regulatory compliance, which are

- Treat **radioactive liquid waste**
- Consolidate and disposition **nuclear materials – plutonium, uranium, and spent nuclear fuel**
- Dispose of **Transuranic and low-level waste**
- Clean up contaminated **soil and groundwater**
- Decontaminate and decommission **unneeded facilities.**

In addition to the Department’s focus on risk reduction, he spoke of progress made to strengthen program and project management by: 1) implementing the **National Academy of Public Administration** recommendations, 2) independently verifying **project baselines** (scope, cost, and schedule), 3) striving for “**best in class**” capability, implementing a more effective **procurement process**, 4) developing and deploying needed **technologies** and 5) focusing on **project execution**. He noted because of these efforts the projected cleanup costs were more credible today - \$60B was added to the baseline.

Mr. Rispoli went on to summarize the significant cleanup progress that is occurring across the complex: seven waste processing tanks will be closed at Idaho; legacy waste (TRU) continues to be shipped to and dispositioned at WIPP; good progress is being made at the Hanford K Basins; surplus plutonium, uranium and spent fuel continue to be consolidated and disposed of freeing resources at some sites that will be re-deployed to cleanup. He recognized Savannah River as a significant resource to the nation. He spoke of DOE’s plan to complete and close four smaller DOE sites in 2008-09. He noted that although DOE is making progress and closing a number of sites, the work at the most difficult, larger sites will not be completed easily or quickly nor will they be closed in the near future. He noted that for these sites DOE is focused on reducing near-term risks and identifying what cannot be done given available technologies. Again, he reaffirmed all the cleanup progress achieved across the complex and suggested each of the Boards look at the progress made at their site from 2000 to today and work with their site manager to develop informational materials to capture the progress made.

He spoke of the issues that needed to be resolved:

- **Regulatory compliance:** He again noted the budget is not sufficient to meet all regulatory requirements and that some milestones are in jeopardy. DOE has been in discussion with and made good progress on this issue with some states and was currently negotiating with others. He believes DOE can do most of the significant work.

- Milestones: DOE signed up to milestones with incomplete knowledge of cost, complexity of the work and adequacy of the workforce, i.e., can the work be realistically done.
- Tools for Resolution: DOE is developing more credible information and analyses by conducting independent audits of cost and schedule baselines and life-cycle planning estimates. Also, analytical building blocks for use in baseline and budget planning are being created.
- Path to Resolution: These tools will be used to engage regulators, tribal nations and stakeholders in meaningful dialogue to assess existing priorities and together identify opportunities to complete cleanup.

Mr. Rispoli spoke of the formation of a new EM Site-Specific Advisory Board for the Portsmouth Gaseous Diffusion Plant and that this group would be welcoming the chair of that Board soon.

He noted that the EM SSAB is one of the largest advisory Boards with an annual budget of \$4M. Mr. Rispoli spoke of this Board's value. He did not want its work jeopardized by someone questioning whether it was compliant with the Federal Advisory Committee Act (FACA). He noted that good progress is being made with the one remaining local board to update its procedures. He talked of a recent experience where he realized that DOE was not communicating technical information in a way that the public understood it. He requested the Boards work with their sites and provide feedback on "if information is understandable and allows people to be engaged." He asked for continued dialogue with the Boards on how to better communicate complex technical issues to better inform the public.

#### Questions and Answers

Ms. Antonucci agreed on the importance of dialogue and collaboration. She wanted to know if the activities listed under "Reduce Risk and Maximize Compliance" were in the order of priority. Mr. Rispoli said that generally, yes. They were ordered in the perception of the greatest risk; however, there were always exceptions. She said she appreciated his reference to H canyon. The people of South Carolina and Georgia were interested in plutonium (Pu) consolidation, the date 2019 and where it would be going. Mr. Rispoli said what can be recovered will be and what cannot be recovered would go to Yucca. He stated that the MOX fuel facility (NNSA) currently under construction at Savannah River would recover a large fraction and H-canyon is expected to deal with a significant amount also. He said he was having an independent review of this disposition pathway, specifically could these two facilities handle all the Pu. Ms. Antonucci noted that Savannah River Citizens Advisory Board (CAB) has no purview over MOX, but wondered if there was any discussion on the CAB being able to comment on that waste stream. Mr. Rispoli did not believe the CAB could comment on operational facilities; however, should MOX become part of EM that could change.

Ms. Cimon talked about the Site Technology Coordination Group (STCG). She noted at the Chairs' New Mexico meeting in 2006 the Chairs had a dynamic discussion on this concept and felt there needed to be greater coordination of and dialogue on technologies. "In January, you, Mr. Rispoli, thought it had merit." She noted that in June 2006 the Hanford Advisory Board issued advice that requested DOE reconsider the STCG concept, where sites could look at and fully vet promising technologies. She spoke of learning about a promising technology from a vendor at a groundwater project meeting, but he had no integrated forum where it could be discussed. She noted the recent issuance of the Science and Technology Roadmap (about which she was very excited) and wanted to see such a process integrated into it – at least two meetings a year.

Mr. Rispoli told Ms. Cimon that he wanted to know if the Department was not moving quick enough or in the right direction. He suggested she discuss her issues with Mr. Frost or Mr. Gilbertson after his presentation.

Ms. Antonucci said that Mr. Rispoli was very good at communicating to the EM SSAB and citizens; however, as closure dates get pushed out, she hoped he was looking at ways to communicate with the next generation of citizens who communicate differently. Mr. Rispoli thought that was a good suggestion and stated that he needed the Board's help to communicate better. He said that an EM Communication Office was being created and suggested they have someone from that Office come speak at one of their meetings. He noted that regarding communication, DOE appears to be more reactive and it needed to look at ways to more effectively and proactively communicate its successes. If people perceive DOE as an agency that cannot do anything right, how could they recruit good employees? Mr. Buxton pointed out that the word "waste" is so negative. He suggested that they look for ways to decrease the fear of nuclear energy and talk about the cost-benefit of why we are doing cleanup. He thought more work should be done with schools. Mr. Rispoli agreed that the public did not understand and, that many in the nation, had fears that were not necessarily grounded in fact. It was not well known that EM ships 10,000+ shipments of waste/year. We need to do a better job to communicate what DOE can do.

Mr. Bonner was glad to learn of Dr. Adam's assignment to long-term stewardship and wanted to know if his responsibilities included long-term stewardship for sites with ongoing missions. Mr. Rispoli responded, yes.

### **Round Robin: Top Three Issues from Each EM SSAB**

Each EM SSAB was provided an opportunity to share their current top three issues facing its board and site.

Hanford Advisory Board (HAB): Ms. Leckband presented the HAB's top issues.

#### Tri-Party Agreement (TPA) Negotiations

- Board is very concerned about the TPA negotiation; the Parties have not yet reached agreement. DOE is proposing some activities such as emptying the underground liquid waste storage tanks be delayed for decades. They hope DOE and the regulatory agencies can reach a decision and work collaboratively.

#### Waste Treatment Plant (WTP)

- Startup of the WTP is delayed from 2011 to 2019. DOE is hoping for a satisfactory alternative to low-activity waste (LAW) treatment or early LAW vitrification. The HAB is concerned on the ability to provide waste feed when the WTP becomes operational.

#### Capping Waste Sites vs. Retrieve/Treat/Dispose

- A lot of waste was buried before 1970. The Board has provided advice over the last ten years that this waste needs to be adequately characterized and removed, treated and disposed. The HAB is concerned about the use of barriers that are unproven, i.e., viability and longevity of barriers are unknown. The goal is for the 200 Area Cleanup Records of Decision to be protective of the groundwater. The Board hopes that DOE is staging remedial actions in the 200 Area in the context of integrating cleanup within geographic areas. What will be the disposition path for TRU elements prior to 1970? Want it added

to the disposition inventory (reference to Idaho pre-70 TRU going to WIPP). At Hanford, the current assumption is to leave it in place.

All these issues are overlaid by the budget problem.

INLCAB: Mr. Flanery and Mr. Buxton presented INL's top issues.

#### Support DOE Cleanup Mission and Adequate Funding

- Support INL's continuing cleanup mission – cleanup and monitoring of facilities and the handling and future of buried waste. Funding at 2006 level is needed for the construction of the integrated waste treatment plant and to ensure cleanup can continue.

#### Protection of Groundwater

- The number one priority is to protect the aquifer (impacts downstream farmers). DOE needs to make sustained research and development investments to develop effective monitoring strategies that would provide real-time, long-term information and better predictive models that could identify advanced barrier failures. They are concerned they do not always have the information to make the right decisions needed to protect the aquifer. Better predictors of barrier failure would allow them to be proactive now and save money later.

#### Opening a Permanent Repository for Spent Nuclear Fuel (SNF)

- Continued delays in opening Yucca Mountain will affect the Idaho Settlement Agreement. INL could become a de-facto repository because of these delays. Yucca could take SNF that could be reprocessed in the future, a positive action. The Waste Isolation Project Pant (WIPP) is being discussed as a backup. WIPP would be permanent storage, which would eliminate reprocessing. Mr. Buxton wanted to clarify that the INL shipments of waste being dug up and sent to WIPP originally came to INL from Rocky Flats.

NTSCAB: Mr. Hermann presented the issues.

#### Transuranic Waste

- FY 2008 is the project completion date and it is on schedule. DOE needs to ensure it receives the required funding.

#### FY 2009 Budget

- Need to ensure there are no more budget cuts. Funding for the groundwater-drilling program is essential.

#### Mixed Low-Level Waste (MLLW) Disposal

- NTS will not accept offsite MLLW after December 2010 or up to 20,000 cubic meters received.

NNMCAB: Mr. Campbell presented their top issues.

#### EM Funding and Consent Order Obligations

- A 50% shortfall in EM funding to meet Certified EM Baseline plus added Baseline Change Proposal.

### Closure of Material Disposition Area G (MDA-G) and Potential Expansion of Rad Waste Facility in Area G

- This is a 64-acre site with some pre-70 TRU. What is needed is integration of long-term stewardship and risk-informed process in decisions for all LANL remedies. Public participation on MDA-G was successful.

### Improve Groundwater and Vadose Zone Monitoring Required for Decision Making at Material Disposal Areas.

- This is a funding priority. It was not well understood early when the baseline was developed. The LANL regulator has suspended decisions on remedies until adequate site characterization and monitoring data are provided. The CAB is not a rubber stamp for DOE even though at times they are accused of being one.

ORSSAB: Mr. Bonner and Mr. Dixon presented the Oak Ridge SSAB's top issues.

### Funding for Completion of Critical Milestones and Commitments

- The Uranium-233 reprocessing work was added to the EM scope by Congress without additional funding. The Oak Ridge budget received in 2007 for completion of regulatory cleanup work was inadequate and has resulted in formal disputes with regulators on the Federal Facilities Agreement milestone schedule. Notable projects impacted by inadequate funding include final closure of the East Tennessee Technology Park, completion of Balance of Reservation Projects, and implementation of historic preservation requirements for the K-25 North Tower. It is recognized that cleanup funds cannot be used to implement historic preservation efforts at the K-25 North Tower. Funding needs to be restored to meet the 2016 completion date of the Oak Ridge FFA milestone schedule.

### Planning and Implementation of Long-Term Stewardship for Continuing Mission Sites

- The Oak Ridge SSAB appreciates the appointment of Dr. Vince Adams as the liaison for ongoing mission sites with residual contamination as this has been an outstanding recommendation to DOE Headquarters. The Oak Ridge SSAB recognizes the need for better communication between other Boards as well as subcommittees. The Oak Ridge SSAB also recognizes the need to ensure sustained funding for long-term stewardship implementation in the future.

### Funding for Completion of the Remaining Cleanup Mission Not in the Current Baseline

- Support is needed for approval of the Integrated Facilities Disposition Project to complete the cleanup work for the Oak Ridge Reservation. Completion of this work will also allow modernization in accordance with the Office of Science and NNSA missions. The Oak Ridge SSAB recognizes the opportunity for better communication and information sharing by DOE to facilitate a better dialogue of stakeholder input to the planning of this work.

PGDP CAB: Mr. Burnett, Chair, presented the Paducah CAB's top issues.

### Long-Term Strategy for Disposal of Recyclable Material

- This is an important issue. D&D work will result in large amounts of material. There appears to be no overall strategy for disposing of recyclable metals. We urge DOE to develop such a strategy. Regarding the moratorium, look at how it is being implemented. Need some guidelines.

### C-400 Area Groundwater Remediation

- C-400 Electrical Resistance Heating project is the most critical activity to the groundwater remediation strategy. The project is facing schedule slippage and cost increases primarily due to the Independent Technical Review taking place midstream. The CAB supports the reviews but would like for future reviews to be fully integrated into the site's baseline.

### Proposed Waste Disposal Options

- Cleanup activities will generate about 3.7 million yd<sup>3</sup> of new waste. DOE is looking at disposal options, including the creation of Kentucky's only Subtitle "C" landfill. The CAB will recommend how DOE may improve their communication to the public on this issue.

SRS CAB: Ms. Antonucci and Ms. Jzar presented the Savannah River CAB issues.

### Tank Farms – Operations and Closure

- We started with 51 tanks now we have 49. There are 36M gallons of waste, 33M in liquid and salt cake. The sludge accounts for 8% of the volume and 49% of the radionuclides. We are pleased to have critical disposition plans. Would like to see acceleration in disposing of both. SWPF will separate the high-activity radionuclides; high-activity portion will go to DWPF. This is a very successful program; a great deal of progress has been made.

### H-Canyons Operation

- This facility is critical for complex-wide Pu consolidation goals. It is the only U.S. chemical operational separations plant. Material from Hanford, Los Alamos and Lawrence Livermore will be processed through it.

### P Reactor

- P Area is being treated as a consolidated unit to take advantage of characterization, data, risk assessment and integrate solutions – an expanded operable unit. The P Reactor went operational in 1954 and was shutdown in 1991. Need early stakeholder input to define the end state for this facility that will have radioactive and hazardous equipment stored within it? The proposal is for in-situ decommissioning, which the CAB endorses. There have been two workshops conducted on the path forward; one more is scheduled for next month.

### Questions and Answers

Ms. Leckband wanted to know what kind of waste was being newly generated at Paducah. It is MLLW. Mr. Buxton wanted to know how many tanks Savannah River has. There are 49 remaining tanks.

Ms. Cimon wanted to know about the nickel. She had heard it was a \$500M resource. Paducah has 9700 tons and Oak Ridge has 5600 tons.

### **Waste and Nuclear Materials Disposition Update – Christine Gelles, Director, Office of Disposal Operations, DOE EM**

EM is providing complex-wide leadership in managing and disposition of DOE waste streams, plus some surplus nuclear material streams. Recent organizational changes in the Office of Regulatory Compliance have improved integration of waste and excess nuclear material disposition. These changes resulted from NAPA studies that recommended there be better integration and consolidation between Nuclear Material Disposition and EM Nuclear Material Disposition. DOE's waste policy is unchanged. Waste Management Programmatic EIS and Records of Decision remain valid.

Ms. Gelles spoke of the significant scope of EM's waste and materials disposition program. She said that EM was trying to formalize the way it integrates numerous projects and attempting to build a complex-wide, integrated strategy for all waste streams. She provided an overview of the five major waste streams:

- Liquid tank waste is comprised of HLW and "low-activity waste" and other HLW streams. There are 88 million gallons of liquid waste stored in over 200 tanks along with calcined HLW and cesium and strontium capsules. While most of the disposition systems are under design and construction, the SRS system is fully operational. Ms. Gelles was asked if it was true that the Hanford WTP currently being built is only expected to deal with 10% of the HLW. If it was true, what about the remaining 90%? Ms. Gelles said WTP was a starting point with the focus on being able to demonstrate capability. The actual throughput is not known and the department is aggressively working to expand the facility's capability. Also, DOE was looking at supplemental technologies to deal with the low-activity portion.
- Transuranic (TRU) waste is estimated to be 157,000 m<sup>3</sup> (legacy wastes managed as TRU waste); 30% of the defense TRU has been disposed of at WIPP. There is not a disposal path for non-defense TRU. Future TRU will be generated and this ties into the Greater than Class C EIS that will be discussed later.
- Low-Level Waste and Mixed Low-Level Waste (LLW/MLLW). In the last decade great strides were made to disposition this waste. Over 1 million m<sup>3</sup> (the majority) has been disposed of. Cleanup activities and other DOE mission are expected to generate a large amount in the future and DOE is evaluating these activities to ensure there is a disposition path for these wastes. She stated that the two identified regional disposal sites are Hanford and the Nevada Test Site.
- DOE owned and managed spent nuclear fuel (SNF). SNF is a material. There are an estimated 2,500 metric tons of heavy metal. The majority of the metric tonnage is at Hanford; however, Idaho has the greatest diversity and number of assemblies.
- EM managed surplus nuclear materials. Currently 12 metric tons of surplus Pu require disposition. This is the basis for the campaign underway now to consolidate plutonium. The converted product is to be in a disposable form. The current proposed path for the ~700,000 metric tons of depleted uranium hexafluoride (cylinders) is conversion and possible disposal. DOE is currently evaluating if this is the right path or if a reuse option should be considered. Ms. Gelles was asked about the disposition pathway of the 3019-A material. She said it would be dispositioned as waste. The majority that was RH-TRU would be shipped to WIPP and the LLW portion would be disposed of at NTS.

Ms. Gelles spoke about DOE Order 435.1, Radioactive Waste Management, which establishes the policy & framework for waste disposition activities. She spoke of the challenges trying to manage the program holistically given the different perspectives. Regarding HLW and SNF, the goal was to stabilize, immobilize/treat, if need, and then safe interim storage until geologic disposal is available. The Repository remains DOE's priority. She noted that the Office of Civilian Radioactive Waste Management was working with EM to ensure DOE SNF and HLW

waste streams are appropriately addressed. Defense TRU waste will be disposed of a WIPP. If it has not been determined to be defense waste, it will be safely stored until future disposition. If practical, the intent is dispose of LLW/MLLW on the site where generated. If on-site disposal is not available, it will be disposed of at another DOE disposal facility. There is the option to send it to commercial sites if it is cost effective and in the best interest of DOE. Ms. Gelles said that the legacy and diversity of waste and materials equaled the diversity of perspectives and stakeholders involved. "Not everyone agrees with all the pieces of the plan."

Ms Cimon asked about the assumptions regarding the use of commercial disposal facilities. Ms. Gelles answered that these sites need to be licensed and able to take the waste. They are reviewed annually to ensure they have a solid regulatory record (e.g., quality assurance, conduct of operations). DOE would then look at the unit cost plus pre-disposal costs and compare them to DOE facility costs.

Mr. Campbell wanted to know the criteria for LLW on-site disposal. He stated that DOE appeared to be taking a more active role in disposal of future waste. In the past unlined disposal trenches were used at Los Alamos, which were not as compliant. Ms. Gelles said that the Office of Compliance headed by Karen Guevara has responsibility for ensuring that Order 435 is met. This order defines performance requirements for future and current facilities. Also, there is a LL federal review group who evaluates the performance assessments. This group is currently discussing improving design elements. Mr. Burnett wanted to know how DOE considered the interest of public/stakeholders in these decisions. Ms. Gelles said that stakeholder perspectives are considered in each step. Mr. Bonner wanted to know about current discussions regarding disposal of CERCLA wastes at commercial facilities. Specifically, was DOE responsible for long-term stewardship, post-closure activities? Could these wastes revert back to DOE? Ms. Gelles said no. He wanted to be assured that these commercial sites are meeting off-site CERCLA rules. Ms. Gelles said that a process was used to ensure off-site CERCLA rules were being met before DOE could send CERCLA waste to an off-site facility. There are requirements for closure identified in the Nuclear Waste Policy Act. Today, the State has responsibility for long-term stewardship. A state can request the federal government to take over, but no such request has occurred.

Ms. Gelles provided a program overview and update on each waste stream.

High-Level/Liquid Tank Waste Management. Activities associated with this program account for nearly one-third of the EM annual budget. Tank retrieval progress is being made at Savannah River and Idaho. DOE is proceeding under Section 3116 (National Defense Authorization Act) to close tanks at Savannah River and Idaho. DOE is evaluating regulatory impacts of how to disposition the calcined HLW. Ms Cimon asked if another facility might be required. Ms Gelles said DOE is looking at the possibility it would be safe to directly dispose of the calcined waste at the Repository without treatment. Mr. Buxton said that there did not appear to be much calcine processing being done. Ms. Gelles said no processing was being done, but there were ongoing technical evaluations/analyses to determine what to do with it.

Ms. Antonucci said her Board was interested in the point of compliance. How clean is clean for the heel? Who will determine what can be left behind? Ms. Gelles said that many will have a role in these decisions – NRC, DOE, the regulators, but the authority is DOE's. Ms. Antonucci asked if there will be a role for stakeholders in these discussions. Ms. Gelles said "yes." Ms. Gelles said that two more waste determinations would be done at Savannah River and she urged Ms. Antonucci to talk with Karen Guevara who has more information on this subject. Ms. Gelles

said a HLW Corporate Board was established and met for the first time April 1. This Board will identify the need for and develop policies, planning standards and guidance, as well as provide the integration necessary to implement an efficient and effective national HLW program. For example, it will ensure lessons learned from Savannah River tank waste disposal are transferred to Hanford, Idaho and others. She said her office is working with the Office of Civilian Radioactive Waste Management to ensure waste-form guidance documents are integrated with Yucca documents. She assured members that the requirements and the flow down of those requirements are well defined.

TRU Waste Disposition. TRU program has been active since WIPP opened. EM's priority is safe, compliant and efficient disposal at WIPP. EM has a complex-wide strategy for optimized use of the facility. Ms. Gelles explained that WIPP must be re-certified by EPA every five year, and they are working on their second certification due in 2009. She noted that the revised inventory is being incorporated into the Waste Information Management System (WIMS) and provided the website for the 2007 Inventory Report. She stated that one-third of the legacy waste (54,000 m<sup>3</sup>) has been disposed of and remote-handled (RH) shipments to WIPP began January 2007. Legacy waste has been removed from 13 sites while large site shipments continue. Savannah River and Oak Ridge were expected to be shipping RH TRU to WIPP soon. Ms. Cimon asked about the status of RH TRU permit modification. Ms. Gelles stated it was not yet approved. Ms. Leckband asked about pre-1970 suspect TRU. She noted those volumes are not in WIMS nor is there an identified disposition path. Ms. Leckband said that Idaho is sending pre-70 waste to WIPP and wanted to know if this has sent a precedent. Will WIPP be the disposal site for pre-70 TRU? Ms. Gelles did not believe any Idaho waste was pre-70 TRU. She thought it was legacy waste, but would find more information on it. She noted that the Idaho waste was exhumed waste and no precedent was being set. The CERCLA process will address the issue of what waste will be exhumed. Ms. Gelles stated that pre-70 wastes pose the same hazards as post-70 waste. Technical issues and capabilities exist; however, the regulatory issues will need to be addressed.

Ms. Gelles spoke of a new development. DOE is planning to send both contact-handled (CH) and RH-TRU waste to INL for treatment (compaction) and characterization prior to shipping to WIPP for final disposal. This approach will more fully utilize existing facilities at INL. It is more efficient and economical and will lower the volume of waste sent to WIPP. Given this new approach, an estimated 2,067 CH-TRU and 188 RH-TRU shipments could move to INL for treatment and characterization, and an estimated 795 CH-TRU and 621 RH-TRU shipments would be sent to WIPP for disposal. She noted that DOE recently completed additional NEPA analyses and published an Amended Record of Decision in the *Federal Register* (March 7, 2008) for this to occur. Ms. Cimon asked if this would apply to Hanford. Ms. Gelles said, yes. This approach could optimize Hanford's disposition of TRU waste. This decision is under discussion. Mr. Buxton said more information was needed on the required packaging (Type B package). He agreed that the approach needed to meet the terms of the Settlement Agreement - any waste sent to INL would need to leave shortly after arrival (six months in/six months out).

Disposition Maps. Ms. Gelles stated that DOE established a LLW Corporate Board that met for the first time this January at the NTS. The meeting was very successful. The goal is to meet three times a year. The next meeting is in June and tentatively scheduled for Oak Ridge. Complex-wide waste forecasting was re-instated three years ago. Not having life-cycle cost forecasting for a number of years hurt DOE. This tool allows for implementation and integration to occur and now includes 99% of all waste generated by DOE programs. DOE is looking to develop and deploy more disposition-planning tools and a narrative summary of the disposition plans. These tools are being piloted at Oak Ridge. These planning tools also identify risks –

technical, regulatory, stakeholder – that could impact the disposition path and DOE plans to develop risk communication plans for each.

LLW/MLLW Trends. There are no new trends. Offsite disposal has declined and expected to remain flat for the next five years due to budget constraints. She said that on-site disposal of LLW and MLLW would continue at most sites. Some on-site facilities are expanding or plan to expand. DOE is evaluating the need for on-site facilities at those sites with future large D&D projects. Much of the legacy waste, the waste posing the greatest risk, has been disposed of. DOE needs to make sure it retains (DOE) off-site disposal options, because it will be required by some sites. DOE is taking steps to optimize NTS. In FY 2008 DOE direct funded (\$21M/year) NTS to ensure it remains open to receive waste from other sites. DOE hopes to continue this direct funding; however, given budget constraints, DOE is asking the generators for a one-time payment each fiscal year to fund the NTS facility. This is because more waste is scheduled to come to Nevada than flat funding can support. NTS forecasts are now under HQ configuration control. For some waste streams, commercial disposal may be more cost effective. Ms. Gelles spoke of the Clyde facility (Energy Solutions) in Utah that may be more cost effective for some sites. The volume of LLW/MLLW for offsite disposal has declined with the closure of Rocky Flats and Fernald, which meant commercial sites lost a lot of DOE business and forced them to re-look at their business strategies.

Off-site waste shipments to Hanford remain suspended; no offsite waste is being sent to Hanford. DOE is redoing its impact analysis of no offsite waste disposal at Hanford. Because Hanford is not available, DOE is looking at near-term alternatives. As previously stated NTS will close in 2010. Forecast volumes for these waste forms are uncertain, because a number of activities are not included in the current forecast data set. The current data only includes projects that have validated, approved baselines. Some large amounts to be generated (e.g., Paducah) are not included. Also, some waste currently classified as TRU could “fall out” as MLLW.

There is no replacement facility for offsite MLLW that is not able to go to the Clyde, Utah facility. DOE is exploring its options. For example, restore Hanford, new facility at Nevada, new facility somewhere else, new commercial disposal facility, and/or Clyde, Utah may get permitted for Class B and C waste. The Department believes it needs more than one option, perhaps two or three.

Ms. Cimon asked about the Texas option. Ms. Gelles responded that Waste Controls applied for a number of licenses. They applied for a license that would allow the Fernald silo waste currently stored to be disposed of there. After this license is processed, DOE believes they will work through regulatory and stakeholder issues surrounding the licensing of other facilities. Texas regulations require DOE to make commitments about long-term stewardship of a post-closure facility. They want these commitments made upfront before waste can be sent. DOE has made no such commitments and continues to work the issue.

Ms. Gelles provided a LLW/MLLW Treatment Update. The Toxic Substances Control Act Incinerator (TSCAI) continues to operate. It is the only operating US incinerator that can take mixed waste contaminated with PCBs. It is old, beyond its design life and not very cost effective. It is possible that Portsmouth and Paducah could generate future waste streams that would be candidates for this facility. However, rather than keep this facility, DOE is considering replacing it with commercial waste treatment capability. There are plans to close it in 2009. DOE is looking for thermal treatment (commercial industry) to ensure there are no orphan waste streams. Ms. Cimon asked about the potential for waste to come into the United States from other countries if there were commercial treatment facilities. Ms. Gelles explained there were legal

provisions that allowed for this and DOE can also export its radioactive waste to other countries for treatment. She said DOE had no stake in the import of Italian waste. Her belief is that Energy Solutions is pursuing this waste stream to compensate for the loss of DOE waste processing work. TSCAI is a “free” incinerator. Since it has been of no cost to generators, they have not used commercial treatment facilities. If DOE does close TSCAI, these sites may be more motivated to use/explore commercial treatment facilities.

Ms. Gelles in her discussion of Disposition Maps stated that WIMS now included information on transportation planning. It is tied to waste streams and form of transportation – truck, rail, inter-modal. Mr. Phelps wanted to know who beside DOE might have access to this data. Ms. Gelles said that WIMS was created to give public access to this information. He expressed concern about this information being widely available; it could contribute to potential terrorism. Ms. Gelles said that security works with the program to determine the appropriate level of information – no route information, no radionuclide information is provided.

#### EM Spent Nuclear Fuel/Materials Management

There are 2500 metric tons of spent fuel most of which are at Hanford, Idaho, or Savannah River. DOE continues to receive spent fuel from domestic and foreign research reactors. Foreign research will continue through 2019. DOE plans to implement the Enriched Uranium Disposition Project (H canyon optimization strategy). Under the plan, Idaho will send aluminum SNF to SRS and SRS will send everything that is non-aluminum SNF to Idaho. This means that SRS will not need to build a \$1B packaging facility and 800 fewer SNF canisters will go to the Repository. This plan could be implemented in the 2009-10 timeframe. Sodium-bonded SNF from Hanford FFTF is being consolidated at Idaho where it will be treated. Hanford and Idaho will require future packaging facilities.

Material Disposition refers to materials other than Spent Fuel. DOE is continuing to address unneeded surplus materials for which EM is responsible. EM is working to ensure coordination across all relevant program offices having similar responsibilities. Nuclear Materials Disposition and Consolidation Coordination Committee have responsibility to develop integrated implementation plans. This group will soon no longer exist. It will be replaced by formal line management. DOE is now addressing issues that have delayed the Uranium Supplemental Analysis (re-looking at the potential for reuse of some of this material).

Ms. Gelles spoke about the Greater than Class C (GTCC) EIS, which has been suspended for six months while DOE revisits its inventory. DOE received 250 comments on the public scoping process. She explained how the GTCC EIS is related to the draft GNEP EIS, because the draft GNEP EIS estimated significant volumes of waste just like Greater than Class C waste. Because of this new information, DOE needs to revise its GTCC inventory. There is about a 600% increase in the volume of waste to be analyzed in the GTCC EIS. The estimated volume goes from 5600 cubic meters over 30 years to 40,000 cubic meters (these numbers are for analytical purposes only). Given the new analyses, DOE is estimating the schedule will slip about one year to early 2009.

Mr. Wegst wanted to know if there were any identified customers for MOX. Ms. Gelles believed there were, but agreed to follow up with him after she did some research. Ms. Antonucci believed it was a consortium with Duke Power. Mr. Burnett requested clarification on GNEP and how it is being factored into other programs. Ms. Gelles said GNEP was driving the significant increase in the GTCC inventory. She also clarified that GNEP scaled back its EIS to look only at near-term facilities and not make a decision on future reprocessing facilities. The GNEP EIS will provide the basis for the Advanced Fuel Cycle Facility decision. Mr. Bonner wanted to know

what material was being generated by Nuclear Fuel Services (Irwin, TN) and is currently stored on the reservation. Also, was there a plan to ship the material (TRU) from Irwin and what would be done with the materials stored on the reservation? Ms. Gelles said that if this TRU material is in the Oak Ridge inventory, it will be processed on site. The Consolidation would apply to future generated materials. She said there would be a Campaign workshop this June in Nevada and the campaign was expected to begin in early 2009. Ms. Leckband thanked Ms. Gelles for her articulate depth and asked that she provide answers to all Board members.

## **EM Planning and Budget –Merle Sykes, Director, Office of Strategic Planning and Analysis**

Doug Frost welcomed Ms. Sykes to her first visit with the EM SSAB Chairs. He said that included in her job responsibilities was to seek input from groups such as the EM SSAB on budget priorities, especially in times of constrained resources.

Ms. Sykes said that her Office was in the process of actively integrating planning, budget and project management to develop a credible, comprehensive complex-wide picture of what work needs to be done, how much it will cost and how long it will take to do the work. She briefly spoke about how much DOE had accomplished since the 1990s and how much more cleanup work needs to be done. Some of the examples of progress she cited included: almost all of the Pu and U are packaged and being sent to SRS; a facility was built to dispose of depleted U; facilities are under construction at Hanford and Idaho for liquid waste; and SNF will be out of wet storage by 2009 at Idaho.

Ms. Sykes laid out some of the events that had occurred and how they impacted DOE, specifically the estimated life-cycle costs for the cleanup program have changed. She explained that DOE developed its Five-Year Plan based on guidance provided by the Office of Management and Budget (OMB). OMB identifies funding targets for each year. The targets provided by OMB are at a lower level of funding, which means cleanup work will be stretched out. In FY08 the life cycle costs were estimated to be \$185B and take until 2035; in FY 09, the estimated cost is \$265-305B and could take until 2050-2062. She said that before 2007, baseline requirements were unconstrained and compliance driven. Last year, sites received new funding targets, thought to be in a reasonable range, to develop their baselines.

Baselines are comprised of a set of plans that define the total scope of work including assumptions on how the work will be done; how much this work will cost over time; and how long it will take to do the work - scope, cost and schedule. DOE believes the baselines can provide the analytical framework from which DOE can develop alternatives and identify the impacts of changes, because cleanup is going to take a long time to achieve and things will change over time. During the past year, DOE has had site baselines independently reviewed and certified. The certified baselines are generally consistent with the five-year targets and align with DOE's priorities. Ms. Sykes said that the certified baselines allow DOE to look at the potential impacts of making certain changes, such as what would be the impacts if DOE employed a strategy to shrink some of a site's foot print or decided to delay/accelerate certain scopes of work.

Mr. Campbell wanted to better understand the current funding impacts at Los Alamos. Los Alamos has a certified baseline that identified an annual budget need of \$300M; however, the budget allocated for that work is \$150M, about 50% less than what was identified in the baseline. He was concerned that this decreased funding along with the backlog of work would push out the schedule. Ms. Sykes acknowledged that it was likely that cleanup work would be pushed out in time (bow wave effect). The Administration made the decision not to fund Los Alamos at the certified baseline level and that the baseline will need to be adjusted. She explained that large increases in a site budget, such as doubling a budget, led to serious questioning by OMB as to DOE's ability to effectively manage its resources. DOE's goal is to secure a stable level of funding over time. Mr. Buxton wanted to know what happens to the model when other things come up. Ms. Sykes said baselines are under change control so changes can be made and documented.

Ms. Sykes described DOE's strategic planning tool, the Analytical Building Block (ABB). The ABB is a level of information between Program Baseline Summary (PBS) funding and detailed

field-planning. The Analytical Building Block concept is used by DOE to look at re-sequencing activities, i.e., rack and stack. Racking is taking a planned activity and moving it ahead in time. Stacking is getting more money to do an activity sooner (compress the schedule). Rack and Stack allows DOE to see what/how work might be delayed or accelerated based on a different prioritization or evaluate the impacts of compressing the schedule for a given scope of work.

Establishing certified, robust baselines and developing strategic planning tools to systematically evaluate different cleanup strategies can be used by DOE to show progress (especially at the large sites) and get OMB/ Congress to re-invest in the program. Are there opportunities for near-term completions and footprint reductions that can be identified? She encouraged members to work with their sites on these concepts and get involved to make this process more transparent.

Ms. Leckband liked the rack and stack concept. She wanted to know how racking and stacking fit into reducing the footprint, because footprint reduction does not equate to risk reduction, which is identified as one of DOE's highest priorities. Ms. Sykes said they were evaluating the impacts of different strategies. Mr. Phelps thought this was a good tool to manage projects and wanted to know how DOE gets those who manage the money to talk with those who plan the work. Ms. Sykes said HQ was looking at this as a strategic planning effort. Today, the DOE is looking at these as planning tools enabling them to do "what if" scenarios and build modeling capability. Mr. Burnett thought it was a good internal analytical approach. He wanted to know if DOE had looked at the political aspect. Ms. Sykes thought this could be an effective communication tool.

Mr. Bonner asked how risk was being defined. Ms. Sykes said there were a number of aspects to risk. Technical, regulatory, cost and other types of risk are factored into the baselines. She encouraged stakeholders to work with their sites on how they are being addressed. Mr. Bonner wanted to know the timeline for implementing this analytical approach across the complex. Ms. Sykes said there is no set schedule. It is still early in the process and DOE needs to examine if this approach is beneficial. DOE believes these tools, at the very least, provide a strong basis to manage the program.

Ms. Sykes said that planning needed to be tied to the budget. She provided a brief overview of the federal budget (federal outlays) and discussed the distinction between mandatory (must fund) accounts (e.g., social security, Medicare) and discretionary accounts (e.g., EM program). Today, discretionary spending is decreasing. She pointed out that FY05 was the peak of accelerated cleanup and then the budgets started to come down.

HQ asked each site to start with their baseline and develop an integrated priority list (IPL). These IPLs are used to build the budget. Ms. Leckband asked if there is a legal requirement for DOE to ask Congress for the budget to do the work that is required by the agreements signed whether or not this work is in their baseline. Ms. Sykes said DOE is required to submit to OMB (the administration) a fully compliant budget (EO12088). Mr. Frost clarified that Departments do not submit budget requests to Congress. One budget is submitted by the Administration (President). Ms. Sykes said the President submits the President's Budget; OMB prints and sends it to the Congress. DOE does a budget justification that contains more detailed information.

Ms. Antonucci said it would be helpful if DOE could provide a timeframe when it would be best for the EM SSAB to meet and provide budget advice. Ms. Nielson stated that schedule provided in Ms. Sykes presentation was the standard budget schedule. She suggested the local boards might want to schedule their meetings to have a budget briefing in early February. Ms. Nielson said they would work to provide more information on the budget schedule at the Chairs' fall

meeting. Ms. Antonucci wanted to know if the budget guidance was issued in January. Ms. Sykes said, generally yes.

Mr. Flanery noted that the chart shows the administration submitting a budget to Congress in February. That will be a new administration. How does that affect DOE's involvement? Are their possible schedule impacts? Ms. Sykes said that what she presented was based on a normal budget year; this will not be a normal year. OMB said the budget will not be formulated until December (placeholder budget based on current spending). OMB will provide the departments guidance and they would develop their budget. She believes DOE will need to respond very quickly. Ms. Sykes hopes that since the baselines are built on a reasonable (funding) level and DOE has tried to engage the regulators on the compliance agreements, the resulting baselines and schedules are viewed as more executable.

Ms. Leckband noted that the HAB schedules a regular February meeting to discuss the budget; however, the past four-five years, budget guidance was provided late, which did not allow the HAB to develop refined advice. She also supported early budget guidance. She wanted to know if HQ will not be providing 2010 target budget numbers until the new administration. Yes. Mr. Burnett asked if the out-year dollars in the EM Budget History chart were escalated dollars. Yes. Ms. Cimon expressed her excitement about the process and wanted to commend the Department. She would like to see the process implemented and sustained over time.

### **Open Discussion**

Ms. Ramonas asked if based on today's presentations, there were particular issues/topics that the group would like to explore further.

- Ms. Cimon said she would like the Chairs to draft a recommendation supporting the process and analytical tools being developed and that this work be continued in the next administration. She suggested a similar letter be sent by the Intergovernmental group and EMAB. The recommendation might be expanded to include wording on seeing the sites implement a process to develop priorities.
- Mr. Campbell suggested a separate recommendation on the Quarterly Project Review (QPR). He felt the QPR process was good, helped to keep projects on track and wanted it continued. Ms. Leckband wanted more information on the QPR process since she was unaware of it. Ms. Nielson said she requested guidance on what information can be shared since sites are receiving different levels of information. Mr. Frost suggested that perhaps the Chairs state that a year ago they received a presentation on the QPRs and there is inconsistency across the sites on what is/is not being shared. Mr. Burnett agreed with the need for standardized information and he would like to see this information. It was Mr. Rispoli who suggested we look at the QPR. What would he like us to do with that information? Ms. Nielson suggested they look at the chart which identifies if projects are on schedule, over budget and the issues. Mr. Buxton said they receive a half-day briefing from their managers and he was unsure if the QPR would provide additional information.
- Ms. Antonucci suggested a congratulatory letter to EM on establishing an Office of Communication, noting how important it is to the EM SSAB, requesting a presentation, and offering to work with them to develop communication tools for current and future generations. Mr. Burnett asked if this issue might not be premature, perhaps the Office needs to be more established. He questioned if the Chairs had not already issued something on this Office. Ms. Nielson said a new director (Jeff Bobeck) was recently appointed to the Office. She suggested the group might want a presentation from him at

their fall meeting. Mr. Campbell reinforced this suggestion. He said that many were struggling with effective communication. It was important to develop improved communication methodologies. He encouraged Ms. Antonucci draft such a letter. Mr. Flanery said the INL CAB was concerned about communication. They asked their management to provide regular updates on their public interactions.

Ms. Nielson said that Mr. Rispoli charged the group to focus on specifics, e.g., waste disposition, technology road map, budget process, and improving communication, especially exciting the next generation. Mr. Frost said he heard Mr. Rispoli ask this group for suggestions on how EM can better communicate highly complicated, technical, fearful information to non-scientific audiences. Also, what can the local boards do individually to achieve the same thing, e.g., workshops, other processes?

- Mr. Wegst said he would like to hear from Dr. Adams, the POC for long-term stewardship. He was interested in hearing what happens to those sites transferred to Legacy Management. Ms. Leckband supported hearing from Dr. Adams on groundwater and Long-Term Stewardship (and its relationship to Legacy Management). Ms. Cimon wanted two separate presentations from him – groundwater (include S&T roadmap) and long-term stewardship.
- Ms. Nielson pointed out that their next meeting is in Washington, D.C. That location provides them with the opportunity to have greater access to people, especially senior individuals. She suggested the Chairs may want to prioritize who they would like to have attend, e.g., Deputy Assistant Secretaries.
- Ms. Cimon brought up the recycling material with a high dollar value (nickel). Did this group need to write a letter? She noted this was a tremendous resource, especially if the monies could be re-invested back into cleanup. Mr. Burnett said the PGDP CAB made three recommendations on this issue. He appreciated Ms. Cimon's interest in this issue and would support the concept to develop a strategy for how to deal with it.
- Ms. Nielson reminded the Chairs that under FACA they must agree, discuss, and vote on a recommendation at a public meeting. They need a developed concept (not all the wording).

### **Public Comment**

Pam Brown from the City of Richland and local governments, and Richland representative on the HAB and the Energy Community Alliance, provided public comment. She stated that she is working with members of the HAB to hold a baseline workshop since baselines will drive the budget. She urged each of the local boards to hold a baseline workshop with their stakeholder community. Tomorrow she will bring copies of a workshop outline that is being developed. She suggested a conference call be held with the inter-governmental working group and they be given a copy of today's slides to discuss on that call. This call could serve as the basis for a fall discussion with that group. She believes that better understanding leads to better dialogue and sustaining an increased budget.

### **Engineering and Technology Update – Mark Gilbertson, Deputy Assistant Secretary for Engineering and Technology, DOE-EM**

Mr. Gilbertson noted how timely it was for the Board to discuss how to communicate complex technical issues. He feels the EM SSAB's feedback is very helpful and is encouraged by his ongoing dialogue with them. He referenced EM's priorities and how engineering and technology was embedded in all of them. The mission of the Engineering and Technology Program was to

reduce the projects' technical risks. He discussed the EM Office of Engineering and Technology and provided contact information on the three directors who report to him:

[Mark.Gilbertson@em.doe.gov](mailto:Mark.Gilbertson@em.doe.gov) (202-586-5042), [Steven.Krahn@em.doe.gov](mailto:Steven.Krahn@em.doe.gov) (202-586-2281), [Vincent.Adams@emdoe.gov](mailto:Vincent.Adams@emdoe.gov) (202-586-1864) and [Yvette.Collazo@em.doe.gov](mailto:Yvette.Collazo@em.doe.gov) (202-586-5280).

He provided an overview of the Strategic Planning in which his organization was involved. He spoke of the Roadmap Initiatives in the context of a difficult budget environment where they were looking to address/leverage resources on high-risk activities. He said he was interested in the Site Technology Coordination Group (STCG) concept, but was struggling with how to build communities of practice. He asked what STCG meant to them. Typically one would mandate the creation of an STCG and develop guiding principles. However, he was looking to have the sites tell him how to better tailor a STCG to fit their needs, be responsive to where they are in the process. He said that HQ hears there is a need. Mr. Gilbertson said he is trying to develop more user-friendly communication tools and asked for feedback on how they were doing in this area. He discussed how his organization continues to work with the national laboratories, private sector, and universities. He stated that Mr. Rispoli has tried to strengthen the ties with the National Laboratories. There is a program that assigns someone from the Labs to work at HQs for one to two years to support DOE with its decision making.

He spoke of the Best in Class Program where external people review and provide input on how to achieve best in class. DOE convened a panel of experts from a cross-section of disciplines to discuss what is needed to achieve best in class. A second meeting convened a panel of chief engineers and asked them the same question. The issues from both will be compiled. He noted that EM is a leader in team building, implementing innovative projects and good stewards. He spoke of working with Sellafield (Great Britain) to create University and lab structures similar to the one EM created.

Mr. Gilbertson talked of the first of the kind work DOE is doing that are true successes. For example, no one in the world is operating a repository like WIPP. He spoke of its exemplary transportation safety record. He spoke of the need to better communicate the successes and lay the framework that this work will take time to achieve, perhaps five, ten years. This work is likely to be a long-term investment. It will take communities talking to communities, national labs to national labs, businesses to businesses. He noted DOE is working with countries around the world to identify technologies that could be applied to cleanup work, e.g., the potential for the next generation of melters (cold crucible induction melter). There is the potential to leverage work being done at one site to another. For example, he mentioned the work on demonstrating a groundwater technology (enhanced anaerobic reductive precipitation) for Tc99 at Savannah River that might be applicable at Hanford and the Hanford's work on hexavalent chromium might be applied at Idaho. He spoke about the work being done at the Paducah Gaseous Diffusion Plant with electrical resistance heating and the use of robotics to advance D & D work. In these times of constrained budgets, DOE is looking for ways to leverage its research investments and working with other groups, such as the National Academy of Sciences (NAS) to identify leveraging opportunities. He noted that NAS plans to produce a report next year on this topic.

Ms. Leckband stated she was pleased to hear in Mr. Gilbertson's presentation the use of her three favorite "I" words – independent reviews, integration and implementation. She liked trying to get private businesses and other countries involved, not just working across DOE programs. She said

Hanford appreciated the focus on implementation and excited about the Technology Roadmap. Ms. Leckband said she had not seen the Technology Readiness Assessment Maturation Process Guide and wanted to know if he worked with people in the field in its development. Yes. Eight field pilots were conducted. Ms. Leckband wanted to know what funding was needed in FY 2009-10 to implement the Roadmap. Mr. Gilbertson said that in FY 09 his funding went up by \$10M to \$30M. "Our program's goal is to be the glue and encourage cross site work." Academy did not think this was enough money. Mr. Gilbertson believes this needs to be a collaborative discussion on where "we want to invest the money; what are those strategic investments."

Mr. Flanery expressed concern that this program is focused solely on short-term research and development. Mr. Gilbertson said the focus is on implementation. The purpose of the Roadmap document was to be able to engage the Office of Science and make them aware of EM's needs. The Engineering and Technology is not basic research program. DOE is working with other organizations for leveraging opportunities, e.g., NE.

Mr. Phelps said he really liked the program described, but wanted to know how Mr. Gilbertson was ensuring it was pushed down into the individual laboratories, especially NNSA labs. Also, what is in place to foster communication between laboratories and actually get them to share hands-on technology information? Mr. Phelps said comments made about the differences among sites and their unique problems may actually cause people not to communicate. Mr. Gilbertson spoke of changes occurring in EM, such as Mr. Rispoli's project management initiative. The validated baselines identifying scope and schedule that allows the Engineering & Technology program to look at common risks across sites. The Roadmap is a tool to try and tie together investments. He said that every Board member has a role in letting DOE know if things are not working. He stated that their feedback and insights are very important.

Ms. Cimon said she believed the current cleanup issues (massive amounts of contamination) are the result of government-science decisions that excluded public policy and dialogue. She liked the term "communities of practice" but was concerned that they looked insular. She liked the Roadmap and was excited about the programs that were being built. Mr. Gilbertson said what was needed was a feedback loop to look at technical decisions over time. These decisions are neither purely technical nor policy but both. Ms. Cimon asked the STCG concept be re-implemented, but more streamlined. She believes some kind of forum to dialogue on technologies is needed where both the scientists and the public can talk and listen to each other. Mr. Gilbertson said it is a continuous dialogue, debate on choices. His fear is that STCG could actually be a forum that excludes integration, excludes the policy discussion. Ms. Cimon talked of a forum used at Hanford that does work well, the "Committee of the Whole" meeting. These meetings focus on a given topic and are open to the public. Ms. Cimon felt an arena for technical and public policy discussions was needed. Mr. Gilbertson asked for suggestions. What do people want; what do people need? Do people feel the need for a facilitated discussion to get to the next level? What is needed is better articulation of what needs to be fixed. Ms. Cimon would like something institutionalized in the Roadmap.

Ms. Nielson summarized that Mr. Gilbertson wants the group's help and everyone wants to be a part of the process. He asked them to be part of his communities of practice. She encouraged members to explore a focused effort and suggested that the HAB be used as a pilot through their Committee of the Whole concept. Perhaps for the next two to six months, they could meet with office directors and try this approach. They could report back to this group lessons learned and perhaps a similar concept could be tried at a few other sites.

Mr. Burnett said he was unaware of what was in place at his site regarding technology development and asked if it was the contractor's responsibility to ensure communication on technology development was occurring. Mr. Gilbertson spoke of the various forums, e.g., QPR, where site information is exchanged. He noted that the forum to discuss technology development may be different for his site than the one for Hanford. Mr. Burnett asked what kinds of information would be useful to DOE. Mr. Gilbertson said he is interested in what the community values are that need to be incorporated into technology solutions.

Mr. Buxton congratulated Mr. Gilbertson on the depth of information provided and the processes being put in place. He was pleased to see that the contractors were being included, because they are both knowledgeable and influential (e.g., steam reforming). He expressed concerns about keeping a skilled and knowledgeable workforce and wanted to know if the workforce was considered in these processes. Mr. Gilbertson said that everyone is concerned about workforce issues and institutional knowledge. He referenced Ms. Sykes discussion on developing building blocks to understand the ramifications of a proposed decision.

Mr. Campbell wanted to know if this Board could recommend to HQ that Mr. Gilbertson's group have a role at the ABB level to look for potential scales of economies in terms of where technologies might have the greatest return on investment. Mr. Gilbertson encouraged the Board to focus on the transparency of project management, the budget process and the tools being developed.

Ms. Jzar thanked Mr. Gilbertson for his presentation. She expressed concerns over constrained budgets and potential job loss. She noted that as line of communication are developed issues become less technical and more human. In these times of change, how do we continue if there is a loss of institutional knowledge, for example, what happens if you leave. How does the dialogue continue? Mr. Gilbertson is very concerned about this issue. Human capital management is important and a challenge. DOE looks for ways to transfer institutional memory and continue to move forward. He spoke of the lack of institutional memory that required a re-education process because no one remembered how they got to the decisions made.

Mr. Frost thanked all the presenters.

### **EM SSAB Product Development**

The Chairs discussed if there were other issues from the morning's presentation that might be developed into products. Mr. Campbell asked if there was interest in developing a product to incorporate technology efficiencies into the budget planning process. He suggested this could be a topic for the fall meeting and asked the organizing committee to look into a workshop and/or work product for that meeting.

Board members engaged in an iterative and interactive process to develop and agree upon two recommendations: 1) **To support the establishment and continuation of the Office of Communication** and 2) **That information from the Quarterly Project Reviews be shared with the EM SSAB.** The group decided more information was needed and deferred to a future meeting a third recommendation on a **Long-Term Strategy for Disposal of Recyclable Metals.** Ms. Nielson offered to have Ms. Gelles begin this discussion on one of the Chairs' conference calls and/or at their fall meeting.

## **Public Comment**

Mr. Kinsey offered a wording suggestion to the recommendation under discussion. He offered the wording “nuclear material.”

Mr. Weir from the INL CAB suggested that the newly established Office of Communication meet and talk with the Pesticide industry on their communication lessons learned.

Mr. Holder provided a brief history of the Global Nuclear Energy Partnership (GNEP) from January 2007 to present. He spoke of the contributions Hanford’s Fast Flux Test Facility (FFTF) and the Fuels and Materials Examination Facility (FMEF) could make to this effort. His concern was that the Site Roadmap addresses only cleanup and the Hanford site has multiple assets that could make a valuable contribution to GNEP and the nuclear renaissance. He hoped the various offices within DOE were working together toward a solution.

Mr. Meyers spoke about the various jobs he held at Hanford. He provided for the record a copy of a Hanford Cleanup Plan of Action. He felt Hanford had not done a sufficient selling job to Congress on the importance of cleanup for the country and the Columbia River Corridor. He identified seven communication objectives and the need to retain experienced workers.

## **Department of Energy Headquarters “News and Views”**

Ms. Nielson encouraged the Chairs and their members to visit the EM SSAB website. The website contains a link to the law (FACA), the GSA regulations, a new link to the revised DOE Advisory Board Management Manual, and the new charter (April 11, 2008). She stated that the charter is renewed every two years. Based on member feedback, the Chairs’ Recommendations’ webpage is in the process of being re-designed. DOE is looking at the various site WebPages for recommendations. Ms. Nielson discussed a new technical issue on Operating Procedures. Minutes need to be certified and posted within 45 days of a Board meeting. FACA requires that the minutes be certified by the Chair and may be amended later.

The next Chairs’ call is tentatively scheduled for June 19, 2008. The September meeting is scheduled in Washington, D.C. September 16 and 17. Savannah River will host the spring (March) 2009 meeting. Ms. Nielson recognized that this was the last meeting for Mr. Flanery and Mr. Buxton as INL co-chairs and thanked them for their service.

Mr. Frost said that a steering committee needed to be created for the D.C. Chairs’ meeting. The following individuals volunteered: Ms. Cimon, Ms. Antonucci, Ms. Clayton, Mr. Bonner and Mr. Campbell. Mr. Campbell asked that a technology workshop be pursued for the fall meeting. Mr. Frost reminded the group of the unique opportunities a D.C. meeting provides. A number of senior DOE staff will be available. He asked the group for suggestions on meeting format and structure. He reminded that groups since they are a FACA-sponsored organization, they are prohibited from lobbying (i.e., not visiting delegations) while in D.C.

Mr. Frost thanked Ms. Leckband and Ms. Cimon for the wonderful meeting that was both substantive and productive. The DOE and contractor staff and the facilitator were recognized for their efforts. Mr. Burnett suggested that at their next meeting the top three issues include successes/significant accomplishments. He questioned the reason for doing the top three issues. Ms. Nielson said one reason was to identify common issues among the local boards on which advice might be developed and issued. She reminded the members that these are their meetings

and DOE is open to any suggestions for change. Mr. Frost said that Mr. Rispoli really liked hearing the three issues from each of the sites.