



# **INL Site Environmental Management**

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C I T I Z E N S   A D V I S O R Y   B O A R D

## **Meeting Minutes**

January 12, 2011

The Idaho National Laboratory (INL) Site Environmental Management (EM) Citizens Advisory Board (CAB) held its bi-monthly meeting on Wednesday, January 12, 2011, at the Ameritel Inn, Idaho Falls, Idaho. An audio recording of the meeting was created and may be reviewed by phoning CAB Support Staff at 208-557-7886.

**Members Present**

R.D. Maynard, Chair  
Willie Preacher, Vice Chair  
Sean Cannon  
Doc DeTonancour  
Harrison Gerstlauer  
Harry Griffith  
Nicki Karst  
April Mariska  
Tami Sherwood  
Fred Sica  
Teri Tyler  
Bruce Wendle

**Members Not Present**

Seth Beal  
Robert Rodriquez  
Damond Watkins

**Deputy Designated Federal Officer, Federal Coordinator, and Liaisons Present**

Jim Cooper, Deputy Designated Federal Officer, U.S. Department of Energy Idaho Operations Office (DOE-ID)  
Bob Pence, Federal Coordinator, DOE-ID  
Dennis Faulk, U.S. Environmental Protection Agency (EPA), Region 10  
Mark Lindholm, CWI

**Others Present**

Dan Staiger, Public  
Danielle Miller, DOE-ID  
Keith Lockie, DOE-ID  
Curtis Roth, DOE-ID  
Ben Roberts, DOE-ID  
Mark Hutchison, NRF  
Chris Henvit, NR/IBO  
Bruce LaRae, DEQ  
Dave Hutchison, ICP

Beatrice Brailsford, Snake River Alliance  
Natalie Packer, ICP  
Joseph Campbell, ICP  
Carl Lovel, ICP  
Kevin Daniels, ICP  
Keith Hampton, Fluor  
Lori McNamara, Support Services  
Bryant Kuechle, Support Services Facilitator  
Peggy Hinman, Support Services

## Opening Remarks

Chairman R.D. Maynard welcomed everyone to the meeting. Mr. Cooper welcomed everyone, thanked the CAB for its efforts, and provided brief updates. Additionally, the liaisons provided brief updates. Mark Lindholm, the new CWI liaison, was welcomed to the CAB. Dennis Faulk noted that Willie Preacher and Tami Sherwood had attended a National Stakeholders' Meeting hosted by EPA in late October. Dennis, Willie, and Tami noted the importance of communications and the value of citizen boards in moving cleanup forward. Dennis commented that the EPA is interested in exploring how other agencies can move their stakeholder communications to the same level as DOE.

## Recent Public Involvement

Mr. Cooper provided an overview of public involvement since the last meeting.

## Progress to Cleanup

Mr. Cooper provided a status of the cleanup progress with active discussion among the CAB, including American Recovery and Reinvestment Act (ARRA) work. Mr. Cooper briefed the CAB on Transuranic Waste Disposition, the Advanced Mixed Waste Treatment Project (AMWTP), Waste Area Group (WAG) 7 Radioactive Waste Management Complex (RWMC), the Subsurface Disposal Area (SDA) Record of Decision (ROD), the Accelerated Retrieval Project (ARP) Interim Actions, the Idaho Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Disposal Facility (ICDF), as well as CERCLA remediation: WAG 1 – Test Area North (TAN), WAG 3 – Idaho Nuclear Technology and Engineering Center (INTEC), and WAG 10 – Site-wide Miscellaneous Sites/Snake River Plain Aquifer. He continued by outlining the progress related to the decontamination and decommissioning (D&D) at TAN (completed), the Advanced Test Reactor (ATR) Complex, INTEC, RWMC, the Power Burst Facility (PBF; ARRA funding), and the Materials and Fuels Complex (MFC; ARRA funding). Additionally, Mr. Cooper briefed the CAB on the Nuclear Materials Completion, the Integrated Waste Treatment Unit (IWTU; Sodium-Bearing Waste), the INTEC Liquid Waste Treatment Facility (Tank Farm Closure), Spent Nuclear Fuel (SNF) Disposition, and Calcine Disposition. The status update also included the safety performance for CWI and AMWTP.

Mr. Cooper provided an outline for the Transuranic Waste Disposition project, listing accomplishments since September. They have surpassed 231 remote-handled (RH) transuranic (TRU) waste shipments to the Waste Isolation Pilot Plant (WIPP). They have received all approved RH-TRU waste from the MFC. Two shipments per week have been implemented for U-233 waste. They have completed off-site transport, treatment, and disposal of AMWTP U-233 and Hot Chemistry Lab waste. They will continue repackaging and shipping RH-TRU waste out of Idaho, with a new target date for completion of March 2011. A small business contract for Sodium Process System Design was awarded to TMPC – Energy Solutions (TES) Environmental Services LLC.

Mr. Cooper outlined the accomplishments of the AMWTP. Since October 1, 2010, they have shipped 438 cubic meters of stored TRU radioactive waste out of Idaho. Since May 2005, AMWTP has shipped 6,820 cubic meters of historically managed TRU waste reclassified as mixed low-level waste out of Idaho (through December 20, 2010). Since April 1999, 41,582 cubic meters of stored TRU and mixed low-level waste has been shipped from the INL site (through December 20, 2010). They completed all ARRA production and employment goals by September 30, 2010. All employees hired with ARRA funding who chose to stay now have full-time jobs at AMWTP. Upcoming activities include continuing waste treatment and shipment operations and focusing on restart of retrieval areas. The contract has been extended through March 31, 2011.

Mr. Cooper briefed the CAB on the RWMC (WAG 7) project objectives. They will conduct targeted waste retrieval at the ARP I, II, III, and IV and disposition waste. The targeted waste, i.e., Rocky Flats 741, 742, and 743 sludges,

graphite waste, roaster oxides, and filters/prefilters, will be dispositioned. They have completed the objective of in situ grouting of 21 locations. They will continue subsurface solvent vapor extraction and environmental monitoring and institutional controls. Remediation work will be completed in accordance with the ROD for Operable Units (OUs) 7-13/14. Mr. Cooper outlined the project accomplishments since September. They have started ARP V exhumation operations. They are continuing waste exhumation at ARP IV. They have completed waste exhumation of 2.0 acres under the CWI contract. They have exhumed 45,700 cubic yards of waste zone materials and packaged 21,274 drums of targeted waste. In upcoming months, DOE will complete ARP VI construction and complete ARP VII foundation concrete placement.

Mr. Cooper briefed the CAB on other CERCLA remediation project objectives. WAG 1: continue TAN groundwater remediation. WAG 3: complete Phase I, II, and III of the OU 3-14 ROD (in the near term this includes installation of drainage ditches and low-permeability pavement inside and outside of the tank farm to support the continued reduction of perched water in northern INTEC). WAG 10: maintain site wide institutional controls and maintenance requirements, maintain Groundwater Monitoring Program, maintain the site wide CERCLA Ecological Monitoring Program, remediate WAG 10 CERCLA sites at Central Facilities Area (CFA) and ATRC, maintain the New Site Identification Process for future CERCLA sites, and remediate unexploded ordnance (UXO) and explosives at designated areas in accordance with the OU 10-04 ROD.

Mr. Cooper outlined the Site-Wide (WAG 10) accomplishments since September. They have completed soil remediation and pipe removal at CFA-54. They have completed soil remediation at TRA-74 (metals contamination). Future activities include the finalization of the 5-year review of CERCLA sites, and revising the Ecological Long-Term Monitoring report.

Mr. Cooper explained the ongoing activities INTEC (WAG 3). They are monitoring perched water levels with radio controlled telemetry system. They monitor water usage to prepare a facility water balance. Some upcoming activities include completing Phase I of the OU 3-14 remedy. The project includes upgrading and installation of drainage ditches and low permeability pavement inside and outside the tank farm. They will continue to eliminate sources of facility water releases to the perched water in northern INTEC.

Ongoing activities at TAN (WAG 1) include performing bi-monthly injections to support in-situ bioremediation, operating the New Pump and Treat Facility, and collecting required groundwater samples to track the progress of the remedial action. Some upcoming activities will be the development of a 5-year test plan for remediation strategy and beginning operation of the Air Stripper Treatment Unit (ASTU).

The ICDF accomplishments since September include the receipt of 6,955 gallons of aqueous waste into the evaporation ponds; receipt of 15,622 cubic yards of soil and debris in the landfill, and the performance of in-cell grouting of void spaces. An upcoming activity at the ICDF is the receipt and disposal of soil and debris from INTEC, ATRC, and RWMC site areas.

Mr. Cooper outlined some decontamination and decommissioning (D&D) objectives. They will decommission and demolish under the baseline program 7 high-risk facilities (6 completed) and 164 excess facilities (157 completed and 2 buildings 'demolition-ready'). Under ARRA funding they will decommission and demolish 4 high-risk facilities (Test Reactor Area (TRA) Hot Cells, Experimental Breeder Reactor (EBR)-II Reactor, CPP 601, and CPP 640), and 89 excess facilities (69 completed) and 6 stretch goals (2 completed). The ARRA D&D-ATR project objectives include the demolition of 16 excess facilities (one stretch goal included) and 2 high-risk facilities (MTR and TRA Hot Cells). Mr. Cooper provided a timeline illustrating the accomplishments and goals of the ATR/PBF D&D from 2006 to 2012. The ARRA D&D-ATR project accomplishments since September include: completed diamond-wire sawing and demolition of TRA-604 Count Room; dislodged, picked, and placed the MTR reactor on the main floor in preparation for shipment to ICDF; completing excavation, removal, transport and backfill of the

TRA-713 B, C, D hot waste tanks, completing TRA-632 Hot Cell 3 LLW box filling, grouting and disposition, and completed TRA-730 catch tanks/vault demolition (stretch goal).

ARRA D&D-INTEC project objectives include the demolition of 60 excess facilities and the demolition of two high-risk facilities: CPP-601 (Fuel Processing Facility) and CPP-640 (Head End Fuel Processing Facility). Mr. Cooper provided a timeline that depicts the accomplishments and goals for the D&D-INTEC project from 2006 to 2012. Some accomplishments since September include: completing demolitions of CPP-694 (stretch goal), CPP-1649, and CPP-1794; the completion of the Fuel Reprocessing Building (CPP-601) main structure demolition, continuing CPP-601 monolith leather-protective cover preparation, completing APS duct-bank demolition, and continuing CPP-602 interior demolition, mechanical/electrical isolations and waste removal. Upcoming activities include completing demolition of CPP-601, completing CPP-1638 demolition, and continuing CPP-602 D&D.

The ARRA D&D MFC project objectives include the demolition of 8 excess facilities and the demolition of one high-risk facility, the EBR-II Reactor. Mr. Cooper provided a timeline of accomplishments and goals for the ARRA D&D-MFC project from 2009 to 2012. Accomplishments since September include completing the MFC-793A Alcohol Recovery Facility hazardous waste removal, finalizing EBR-II historical Preservation approval actions, completing asbestos in MFC-766 east above grade, commencing removal and processing of EBR II primary tank components, and completing deactivation of the Covered Gas Collection System. Upcoming activities include completing preparations for passivated sodium treatment in the MFC-766/767 transfer lines, completing preparations for treatment of EBR II Primary Coolant Pumps, Intermediate Heat Exchanger, and Shutdown Coolers, and completing removal of sodium components.

The IWTU (Sodium-Bearing Waste) project objectives are to design, construct, test, and operate the Sodium-Bearing Waste Treatment Facility and process all sodium-bearing waste material no later than December 31, 2012. Mr. Cooper provided a timeline of the accomplishments and goals for the IWTU (Sodium-Bearing Waste) Project from 2006 to 2012. Accomplishments since September include: completing construction on 31 of 33 systems needed for integrated plant testing. The project is at 90% for physical completion and 92% for overall project completion. Upcoming activities include completion of construction of remaining systems and systems testing.

Mr. Cooper provided a timeline of accomplishments and goals for the INTEC Liquid Waste Facility (Tank Farm) Closure Project from 2006 to 2012. Current activities include preparing the west side of the tank farm for D&D and closure in Fiscal Year (FY) 2011.

Mr. Cooper briefed the CAB on the SNF Disposition Project objectives. They will transfer legacy, EM-owned SNF from wet storage to appropriate dry storage (completed). Receive and store SNF from the ATR and receive Domestic and Foreign Research Reactor SNF for storage. They will prepare the SNM facilities for transition to another government entity by installing a segregation fence (completed). Additionally, they will provide safe, regulatory-compliant, routine operations for INTEC SNF handling and storage facilities. Mr. Cooper provided a timeline of the accomplishments and goals for the SNF Disposition Project from 2006 to 2012. Accomplishments since September include one Domestic Reactor Receipt (DRR) at INTEC in December – Neutron Radiography Reactor Fuel (NRAD) fuel from MFC.

The Calcine Disposition Project objectives are to meet the requirements of the Idaho Settlement Agreement; issue a ROD regarding the treatment of calcine by December 31, 2009 (completed); submit an application for a Resource Conservation and Recovery Act (RCRA) Part B Permit governing the treatment and in-state disposition of calcine (transport and interim storage, if necessary); render calcine in a "road-ready" form (ready to be shipped out of State) by a "target" date of December 31, 2035; and meet the requirements of the Idaho Site Treatment Plan for the safe management of calcine as a mixed hazardous waste under the RCRA permits and agreed-upon milestones. Mr. Cooper provided a timeline of accomplishments and goals for the Calcine Disposition Project from 2006 to 2012. Critical Decision approval has been deferred until FY 2012 or 2013. Upcoming activities include: continue

engineering evaluations and design in support of the RCRA Part B permit modification; and initiate technology assessments in support of the RCRA Part B permit modification.

Mr. Cooper provided a table illustrating the ARRA performance measures, and provided a timeline of accomplishments and goals related to key activities and completion dates from 2005 to 2013. The Idaho Project milestones, post 2012, were also displayed in a timeline up to 2027.

In conclusion, Mr. Cooper discussed a few items of potential interest. He identified CAB support in the ICP acceleration, the Idaho EM Budget request of \$412 million, and the projected resource impacts associated with ARRA work scope completions.

## Discussion

Tami Sherwood asked if DOE has awarded the contract for Pits 1 and 2. Mr Cooper replied that it had not, but DOE is looking at accelerating this work if it can resolve funding issues. DOE would like to apply the money saved by completing grouting ahead of schedule on Pits 1 and 2.

R.D. Maynard asked how many ARPs are completed. Mr. Cooper replied that ARPs 1 – III are done and ARP IV is 95% done. ARP V has started, and when ARP IV is complete, the ARP IV crew will move there as well. Then the crews will move on to ARP VI. They are trying to sequence the work to keep the crews going. After ARP VII, there will be two more areas to be covered with a tent: Pits 1 and 2; and Pit 10 East. Pits 1 and 2 will be a large area. A rough estimate was provided that a crew could complete Pit 9 (ARP V) in a year, at a cost of about \$25 million. R.D. Maynard recalled that the GEM project (for remediation of Pit 9) cost about \$160 million to retrieve about 20 cubic meters of waste. Dennis Faulk commented that progress was possible when the parties stopped fighting and got a mindset of getting something done together.

Teri Tyler asked if DOE planned to reuse the tents. Mr. Cooper noted that the material from one ARP would be reused for drum facilities, air locks, and equipment staging at the next ARP. Used material would be considered as waste and would go to ICDF. ICDF will be capped and closed between 2015 and 2018. DOE plans to use a small business contractor for this work. Dennis Faulk noted that the inner liner of the tents only should be contaminated. If the outer material can be recycled without contamination to the worker, it could be reused instead of disposed. A CAB member asked whether the tents could be used at Hanford. While the tent structures may not be easily reassembled and reused, the ventilation systems may be of interest.

Regarding ICDF, Dennis Faulk asked if anyone is looking at ICDF capacity and plans for use of the facility. Mr. Cooper replied that DOE was evaluating the status of the facility, but it looked like it would be used to currently planned capacity. Mr. Faulk noted that the ICDF evaporation ponds have a lot of water, and that he would like to share potential enhancements to operation with the CAB.

At TRA, Mr. Cooper noted that only about 50 feet of line remain to be removed from TRA 632; approximately 1 mile of line has been removed. He would like the CAB to tour the remediation sites including TRA in May 2011 to see progress.

AT EBR II, Mr. Cooper noted that DOE has received an extension of ARRA funding through 2011 in order to complete the necessary sodium treatment.

DOE noted that there has been a 1 to 2 month slip in the schedule for completion of the sodium-bearing waste treatment facility. The contractors and DOE are working as a team to reach final stages of completion. Willie Preacher asked who will operate the facility. Mr. Cooper replied that they will use a combination of new and old workers. Mr. Lindholm noted that operators are already on board, and they will be involved in start up. Mr.

Preacher commented that operators have knowledge of the requirements and how to do the work. Mr. Lindholm agreed, and noted that his company was involving operators in development of procedures.

Willie Preacher asked for clarification of the Irradiated Fuel Storage Facility (IFSF) construction modification and what was planned. Mr. Cooper replied that DOE was conducting an engineering evaluation of existing facilities to determine if they could be used for part of IFSF. IFSF has been pushed out in order to move calcine treatment ahead.

Willie Preacher asked if DOE had heard anything from the Blue Ribbon Commission on High-Level Waste (HLW). Mr. Cooper replied that DOE had not heard anything. DOE is not going to miss the Settlement Agreement Milestones.

Terri Tyler asked what additional funding would be needed to accomplish accelerated site cleanup. Mr. Cooper replied that an additional \$38 million per year would be needed through 2015. DOE would work with its 2011 funding and hope to receive a higher level for years 2012 through 2015.

Harry Griffith noted that 2 important metrics presented at the EM SSAB chairs meeting were land recovery and life cycle costs. How is DOE Idaho doing against these metrics? Mr. Cooper noted that this would be covered in Mark Searle's presentation. Mr. Cooper noted that one difference at Idaho from other sites with EM SSABs is that EM is not the Program Secretarial Officer (PSO) for INL; it is DOE's Office of Nuclear Energy (NE). There is acreage under EM to be released, but most of it will be released to NE instead of to the public.

Nikki Karst asked about the impact of ARRA on BBWI and whether the new contractor would be affected. Mr. Cooper replied that BBWI is completing ARRA work under its contract. This has helped maximize the impact of ARRA funds. Ms. Karst asked about the status of the new contract for AMWTP. Mr. Cooper replied that the Source Evaluation Board (SEB) planned to be done with its recommendation by the end of March, but that time for the review and approval process after that was not certain. R.D. Maynard noted all the changes to the project since the proposal process started, and Mr. Cooper responded that an updated Request for Proposal had been submitted to the 3 teams for their bids, and that these responses were what the SEB was reviewing.

Tami Sherwood asked about TRU waste processing at RWMC. Mr. Cooper explained that he was referring to the 8 cubic meters of RH-TRU, and that there is other TRU waste to be processed.

Tami Sherwood asked about receipt of offsite shipments at AMTWP. Mr. Cooper replied that AMWTP is receiving offsite shipments from Hanford and that the 12 month window for competing processing is being met. The only current plans are to receive offsite waste from Hanford.

A CAB member asked what material is being injected at TAN on a bi-monthly basis. Mr. Faulk replied that it is a whey product intended to provide food for the bio-organisms that break down the contamination. Mr. Faulk noted that the work at TAN and the related CERCLA 5 year review would be good subjects for the next meeting.

R.D. Maynard noted the plans to cap the SDA and asked what the impact would be if the plans were moved up. Mr. Cooper agreed that this would accelerate clean up that CWI is preparing to move ahead.

Beatrice Brailsford, Snake River Alliance, asked for clarification of the issues of the evaporation ponds at ICDF and the capacity of ICDF. Mr. Faulk replied that there is room in the evaporation ponds for the water in the ponds and that will be added; but options are needed to increase evaporation next summer.

## CWI's 2011 Workforce Strategy

Mr. Paul Allen, DOE, and Mr. Bill Dalton, CWI, briefed the CAB on CWI's 2011 Workforce Strategy. From a historical perspective DOE and the ICP contractor, CWI, knew from the beginning that the workforce would shrink as work was completed. They planned for reductions early, worked to obtain approval, and executed plans for reduction. As changes occurred in work completion, work acceleration with the ARRA, they managed these changes, which included increases to work scope. This results in the need to continue to shrink the workforce as work is completed. Current workforce analysis indicates that a significant number of positions will need to be eliminated in 2011 due to skill mix issues. Workforce restructuring activities (WFR) are being planned for January, June, and September of 2011. Each WFR event will include 2 distinct phases: a voluntary "Self-Select Program" (SSP), and; and Involuntary Separation Program (ISP). The selection process for salaried employees includes the following steps: Managers determine how many positions need to be eliminated – by type of work; then, the initial number of positions to be eliminated is adjusted downward based on the results of the SSP and the release of subcontracted personnel. Except in unusual situations, subcontract workers are released before direct employees. Salaried employees who perform the same type of work are peer-ranked based primarily on their skills, and the relevance of those skills to future work requirements. For those types of work where salaried positions still need to be eliminated (after the adjustments noted above), the lowest ranked employees are selected. The selection of represented employees for involuntary separation is conducted in accordance with the applicable collective bargaining agreement.

All SSP participants and ISP-impacted employees receive the same benefits: severance based on whole years of service; options to continue medical coverage at subsidized rates for at least one year; and special education benefits of \$5,000 and the availability of a \$1,000 scholarship at EITC. Available services and resources (through CWI and/or the Idaho Department of Labor) include: an Outplacement Center with full business resources (i.e., work areas, equipment, internet access, and supplies); training programs and classes (such as Resume and Interview Preparation, Negotiating a Job Offer, Conducting Electronic Job Searches, Effective Networking Skills, etc.); retirement counseling; "Next Steps" counseling; identification of possible job opportunities; and job fairs and skill fairs.

Rehire rights were addressed. SSP participants agree not to seek employment with DOE or National Nuclear Security Administration, or any contractor/subcontractor to DOE or National Nuclear Security Administration, for a two-year period. ISP individuals are generally eligible for rehire, subject to the availability of an open CWI position for which they are qualified. ISP individuals, who were continuously employed since September 27, 1991 by a DOE or Department of Defense contractor or subcontractor, are eligible for "Preference in Hiring Status" with respect to open CWI positions for which they are qualified.

### Discussion

R.D. Maynard asked whether trade employees are part of the notification to other companies about available workforce. Mr. Dalton replied that all skill sets are advertised and promoted to the other companies that CWI works with.

Fred Sica asked about the \$5,000 education fund and what the requirements were. Mr. Dalton replied that the emphasis was on helping the employee find a job, not just earn a degree. The degree requirements have been taken away, so the program is not as restrictive as it once was. The key is that the education help the worker find a job.

Tami Sherwood commented she was impressed with CWI's proactive approach and its support for employees.

R.D. Maynard noted that workers in the building trades on CWI's force account who have been on the job for a long time were treated differently from the plant operations workers. Mr. Dalton noted that the programs CWI



offers are primarily for CWI employees. The trade employees go back to their union halls. However, CWI is actively letting prospective employers know about all skill sets.

Nicki Karst asked about the effect on workforce restructuring if funding was available to accelerate the program. Mr. Dalton replied that it would help a great deal and that CWI hoped to get direction on what can be sped up. Ms. Karst questioned whether increased funding to accelerate cleanup would just delay the inevitable. Mr. Dalton replied that everyone recognized that the cleanup project will end, but hopes that the workforce could move to a location where their skills are needed when it ends. Ms. Karst noted that there may be an advantage to stretching out the work in order to keep the workers here to get the job done. Mr. Cooper noted that if funding was received to accelerate work, that crews could be put on that work for 3 or 4 more years while other potential work, such as Areva, develops. DOE is also looking at new INL missions. Mr. Faulk commented that the longer there is funding the more time people will have to find new work. He noted that Hanford D&D will start in 2015 to 2016, and it would be a benefit to have a trained work force available.

Mr. Sica commented that he appreciates hearing what is actually happening with the workforce. He appreciates that CWI is facing the issue instead of avoiding telling the community. Part of the CAB responsibility is to see what is realistic in terms of the job picture in 2015.

Doc DeTonancouer asked about the prospect of BEA hiring CWI employees. Mr. Dalton agreed this was a good point and noted that it happens frequently. Employees also move between CWI and AMWTP. As a professional courtesy, the INL contractors let each other know if they are planning to hire another contractor's employee. The contractors stay in constant communication about work opportunities and other ways to help their employees.

The group discussed the potential for hiring younger workers, hiring workers to meet the NE mission, and hiring workers with knowledge of site operations to help with D&D.

## **Public Comment**

No public comment was provided.

## **Experimental Breeder Reactor-II D&D Review and Status**

Mr. Mark Shaw briefed the CAB on the Experimental Breeder Reactor (EBR)-II D&D. The Selected Cleanup Alternative 3 – Grouting the EBR-II Reactor Vessel in place and Demolition of the Containment Building is being implemented. Continuous progress is being made in: asbestos and lead removal; mechanical and electrical isolations; sodium treatment, where elemental sodium treatment is completed and preparations for passivated sodium treatment are underway; and development of the EBR-II Historical Exhibit, which captures ideas from the June 2010 Focus Group. Details of asbestos abatement include: 1.3 miles of asbestos removed; MFC-766 completed; MFC-767 (EBR-II Reactor Building); no asbestos found in the basement; and a letter to the Department of Environmental Quality (DEQ) and EPA for concurrence on leaving inaccessible asbestos in-place at MFC-795 and MFC-767 has been completed. Details of lead removal include: identification of approximately 800,000 pounds of lead; continuing to find more (lead bricks and lead shot); and removal of approximately 425,000 pounds of lead to date. The status of preparations for demotion at various facilities is as follows: at MFC-766 – Sodium Boiler Building, systems have been isolated and temporary power installed; at MFC-767 Reactor Building, electrical is 25% and mechanical is 75% isolated; at MFC-793 A – Alcohol Recovery Facility Pad and Tanks, electrical is 95% and mechanical is 100%; alcohol has been removed and sent to an offsite energy recovery facility (radiological and sodium contaminated); MFC-793 B – Alcohol Recovery Facility Annex is not yet isolated; and at MFC 795 – Cover Gas Cleanup System, both electrical and mechanical isolation has been completed. The following buildings have been demolished: MFC-757 – EBR-II Cooling Tower foundation; MFC-757A – EBR-II

Cooling Tower System Building; MFC-793E & F – Sodium Components Maintenance Shop Storage Buildings; and MFC-795 – Cover Gas Cleanup System (aboveground).

On the topic of elemental sodium treatment, Mr. Shaw reported that super-heated steam treatment in MFC-766 Secondary Sodium Drain Tank was successfully completed in July, 2010. This treatment was conducted in an inert nitrogen gas atmosphere. The project was designed by CWI and Creative Engineering. The skid mounted equipment was built at Premier Engineering. Approximately 60 gallons of elemental sodium was treated.

Treatment of passivated sodium is also planned. Passivated sodium is the layer of sodium bicarbonate formed from previous sodium treatment technique called passivation. In some areas, elemental sodium still remains below this layer. The remaining sodium is in MFC-766 east piping and MFC-767 primary reactor tank and equipment. In situ treatment of passivated sodium will involve a citric acid treatment solution. This is a new approach to treating sodium covered by sodium bicarbonate. It has been tested extensively in the laboratory (beaker-scale testing) and in bench-scale tests. It will also be conducted in an inert nitrogen gas atmosphere. The citric acid treatment solution will be used in a trickle-down flow through the pipes instead of super-heated steam. Acid dissolves and neutralizes sodium bicarbonate in order to reach the elemental sodium still in the pipes (about 12 gallons). Treatment expected to commence in February 2011. Approximately 50 gallons of sodium potassium alloy also exists, which will be treated using the citric acid treatment solution.

Mr. Shaw provided details on development of the EBR-II Historical Exhibit. DOE plans to break ground in early 2011 by making room in EBR-I. Demolition of existing interior walls will be conducted first. The exhibit is projected to be ready for viewing by Memorial Day 2011.

## **Discussion**

Fred Sica commented that EBR-I generates income within the surrounding community (estimated in the past to be \$130,000 per year), and that he thought EBR-II would be a good addition.

Teri Tyler asked about the process for the citric acid treatment. Mr. Shaw indicated that the process is still being worked out in engineering. He noted that the reaction can be monitored by the heat generated. Ms. Tyler asked if the liquid would be recovered. Mr. Shaw noted that there has been a lot of work on how to optimize the process.

Nicki Karst asked about water generated from the water jet cutting. CWI representatives indicated that the jet uses a small amount of liquid. In the testing, 10 to 15 gallons of water was generated from multiple cuts. The water will be managed as contaminated material. The water could be reused before being discarded. CWI pointed out that the jet has been used at Hanford. Although there are safety challenges, these are minimized because the jet is run remotely on a track system.

Ms. Karst also asked about the disposition of the lead. Mr. Shaw replied that the lead is macroencapsulated and shipped to the Energy Solutions facility in Utah. Other waste is disposed at ICDF.

Mr. Faulk commented that the presentation highlights the amount of work involved in taking a structure down and that this has given him a good appreciation of the efforts.

## **Idaho's Journey to Excellence**

Mr. Mark Searle briefed the CAB on the initiative called Idaho's Journey to Excellence. Idaho's 2015 Cleanup Vision is to complete the EM cleanup mission, except for the calcine, by 2015. Building on the ARRA momentum, the Idaho team will: reduce the Idaho cleanup cost to American taxpayers by \$2.4 billion; protect the Snake River aquifer; shrink the active footprint by 92%: (Idaho footprint reduced from 775 acres to 62 acres). Deactivate and

demolish over 240 facilities/structures); complete all TRU waste disposition: (65,000 meters<sup>3</sup> of stored contact-handled TRU waste 4 years ahead of the Idaho Settlement Agreement requirement, all RH-TRU waste out of state 4 years ahead of the Idaho Settlement Agreement requirement, all targeted buried waste in the SDA 9 years ahead of schedule, and optimize WIPP operations); disposition and demolish over 240 facilities and structures at the INL; treat and close the last 4 HLW tanks: (construction and operation of the SBW facility by 2012 enables closure of the last 4 of 15 HLW tanks by 2014); and complete all of Idaho's EM legacy cleanup missions, advance calcine disposition and maintain SNF in safe/dry storage.

Mr. Searle reviewed key cleanup accomplishments made possible with ARRA funding and a summary of the budget requests for FY 2012. He also reviewed a summary fact sheet illustrating the potential savings and accomplishments to be achieved through implementing the 2015 Cleanup Vision.

## Discussion

Dennis Faulk observed that Hanford has a similar 2015 vision, and that there are lots of asterisks. The INL vision would have at least 2 asterisks – for RWMC and TAN. He expressed concern the goals for RWMC and TAN would not be completed by 2015.

R.D. Maynard asked about the disposition of the workforce when the scope is completed. Mr. Searle indicated that it would still be the case that workforce reductions would be experienced when the work was done.

Mr. Searle clarified that the 2015 completion vision does not include the caps over the SDA or the INTEC Tank Farm.

Fred Sica asked what makes up the \$2.4 billion in savings, and Mr. Searle replied that the savings are gained by acceleration of the SDA closure.

R.D. Maynard asked what work activities would take place between 2017 and 2035 under the cleanup vision. Mr. Cooper replied that calcine treatment was scheduled to start about 2018.

Fred Sica commented that DOE may have contingent plans for budgeting due to uncertainties such as the availability of Yucca Mountain. Mr. Cooper responded that the plan for 2015 reflects uncertainty. While DOE is working to achieve safe storage, options and strategies are being developed.

Nicki Karst asked about the 92% footprint reduction and whether this would be land freed for use outside DOE. Mr. Searle replied that the land is still on the INL site, but it would no longer be an EM liability. Most land will go back to NE and not be released to the public. Mr. Searle commented that the big opportunities for footprint reduction are at the Hanford and Savannah River sites. Fred Sica asked whether there was any long-term plan to use the site for residences. Mr. Faulk responded that there are 2 areas of the site that will not be cleaned to unrestricted use – the SDA and INTEC. The remainder of the site would be unrestricted use.

Harrison Gerstlauer asked about the difference between INL and Savannah River, and Tami Sherwood commented that the INL is planning a liability reduction, not so much a foot print reduction.

Fred Sica commented on the potential recreational opportunities at the INL and asked whether such use would be allowed in the future. Mr. Faulk commented that the goal of cleanup is to have your site deleted from the National Priorities List of cleanup sites. He thinks by 2020, DOE may be ready to seek deletion.

R.D. Maynard asked about the role, if any, of legacy management at the INL. Mr. Cooper replied that he felt it would be better for NE, the landlord, to perform this function. This would avoid having to have 2 programs to do

the same thing. Willie Preacher noted that as long as there is an NE mission for the site, he did not envision a need for legacy management.

Bruce Wendle asked how long Vapor Vacuum Extraction would go forward. Mr. Cooper replied that it would operate for a long time. DOE is planning to move the wells and the process will likely go beyond 2018, depending upon the results.

## **Sodium-Bearing Waste Treatment Update**

Mr. Keith Lockie briefed the CAB on the status of the Sodium-Bearing Waste Treatment Project. The project is for design, construction, and commissioning of a new treatment facility to Treat 900,000 gallons of radioactive liquid waste currently stored in underground tanks at the INTEC Tank Farm. The Idaho Settlement Agreement requires treatment of tank waste by December 2012. A Consent Order requires the remaining INTEC Tank Farm tanks to be emptied by December 2012. The tank farm tanks' secondary containments are non-compliant with RCRA. The planned steam reforming technology converts acidic radioactive liquid waste to solid carbonate particles. The new facility includes a process building with reinforced concrete process cells inside a structural steel building, along with a product storage building. It will produce approximately 650- 700 RH waste canisters. The product storage building provides interim storage for entire product volume. The project is at times referred to as the IWTU.

Construction is complete on most individual systems, with those systems now turned over from construction group to the test organization. Completion of all construction turnovers was not achieved by the end of December 2010 as previously planned. Thirty-one of 33 major systems necessary for integrated plant testing have been turned over. Twenty-nine of 40 additional plant systems have been turned over. Previous plans for a DOE Deputy Secretary and Stakeholder visit/celebration have been postponed. Completion of construction and turnover of remaining systems will occur over the next few weeks. A system test program is now underway on completed systems. The testing phase is scheduled to run through April/May 2011.

Mr. Lockie related that the startup date for the facility may shift. Construction delays have resulted in unsupportable systems test schedule compression. A schedule analysis has been completed which shows a need to shift the project completion forecast date from August 2011 to December 2011 to re-establish appropriate confidence levels. (Contract has been modified to incentivize CWI to complete by November 2011 or earlier, with fee penalties for later completion.). This proposed change in the project baseline is under review by DOE. A contract modification was executed in December 2010 to cap project costs to the government at the approved Total Project Cost of \$571 million. The impacts of this shift would be as follows. Forecasted Readiness Review dates would shift for the Contractor Management Self-Assessment (MSA) – from late February 2011 to May 2011, for the contractor Operational Readiness Review – from May 2011 to late June 2011, and for the federal Operational Readiness Review – from July 2011 to August 2011. Given a 10-month Waste Treatment Campaign – still allows time to complete processing under current contract by December 2012 Settlement Agreement milestone.

## **Discussion**

R.D. Maynard asked how the sodium-bearing waste would be transferred from the tanks to the treatment unit. Mr. Lockie explained that it would be transferred using existing equipment to the calciner, and then new equipment is being constructed to transfer the waste from the calciner to the treatment unit. Mr. Lockie commented that DOE was still evaluating how to transfer the calcine from the bin sets for treatment.

Bruce Wendle asked if there was a similar plant anywhere in DOE. Mr. Lockie replied that there is a similar commercial plant in Tennessee, but no DOE plant.

Tami Sherwood asked about the cost of the project. Mr. Locke explained that the original cost was \$461 million and that the cost rose to \$571 million due to seismic standards, material costs, and plans to handle calcine in the future. Mr. Lockie recounted that the project had slowed in 2009 to let other programs continue, and that this had slowed it down. Willie Preacher asked about the cost of materials, and Mr. Lockie replied that the alloys in the metals have cost more as the project has gone on.

Dennis Faulk asked what would happen if the milestone for waste treatment was not met. Mr. Cooper responded that fines and potential limits on SNF receipt were possible impacts.

Teri Tyler asked about redundant systems. Mr. Lockie replied that he thinks there are adequate spare parts available and that plans are in place for any long lead items.

Mr. Lockie noted that a comprehensive performance test would be conducted as a RCRA requirement. DOE also plans to sample offgas to assess the actual offgas against what was predicted through the design.

## Public Comment

No public comment was provided.

## CAB Work Session

The CAB work session started with a summary of the EM SSAB Chairs meeting held in Santa Fe, New Mexico in September 2010, and of the Long-Term Surveillance Meeting held in Grand Junction, Colorado in November. The CAB then set its schedule and work plan for 2011.

### 2011 CAB Meeting Schedule and Work Plan

#### March 15, 2011 – Idaho Falls

- Five year CERCLA review (including contamination breakdown by bio-organisms and ICDF evaporation ponds)
- ICP “Buy Back”
- Cleanup Acceleration
- Interactive session on radiation (1 hour)

#### Work Session:

- CAB Legacy
- Public Outreach
- Subcommittees
- Chair and Vice-Chair elections

#### May 17-18, 2011 – Idaho Falls

May 17 site tour: remediation sites, including IWTU and EBR-II

- MFC transfers, including EBR-II fuel
- EPA-Region 10 update

#### July 12, 2011 – Twin Falls

- INL EM budget
- Calcine path forward
- Naval Reactors Facility Expended Core Facility Re-Capitalization EIS
- AMWTP contract status

#### Sept. 13-14, 2011 – Sun Valley

September 13 - Retreat

- Grouting performance/monitoring
- Closure strategy – RWMC and advanced retrieval
- Long-term need for AMWTP
- Jobs, layoffs, and rapid response

#### Nov. 15, 2011 – Idaho Falls

- Blue Ribbon Commission waste disposal
- Tribal agreements

The CAB also discussed membership recruitment, leadership, and committee structure.

The CAB empowered the Membership Committee (R.D. Maynard, Willie Preacher, Seth Beal, Bruce Wendle, and Fred Sica) to make decisions regarding new membership based on the following prioritized principles:

1. No conflict of interest
2. Outside of Snake River Plain area (West Yellowstone, Jackson, a place with an active citizens group – i.e., Keep Yellowstone Nuclear Free)
3. Counties surrounding or containing the INL geographically
4. Union representation (past or current)
5. Relevant experience.

Membership committee must submit recommendations to Bob Pence by mid-February

The CAB will move forward with leadership elections at the March meeting. Tami Sherwood reported she is working on a draft 2010 INL EM CAB annual report, using the input provided by CAB members. Tami Sherwood also brought up the Mayor's Youth Council and its interest and involvement in INL matters. Members agreed the Youth Council may be interested in the CAB and to invite them to the next meeting. It decided to defer further discussion on committee structure and on public outreach to the March meetings.

The CAB discussed items in follow-up to the meeting and decided that it would draft a letter supporting the EM 2015 Vision to accelerate INL cleanup.

### **Action Items:**

1. R.D. Maynard will work on a draft letter to DOE supporting the EM 2015 Vision which would accelerate cleanup; Nicki Karst, Willie Preacher, and Sean Cannon will assist with the letter; the Support Staff will circulate it among the CAB members for final review.
2. Support staff will coordinate nominations of CAB members for Chair and Vice-Chair. Support staff will provide nomination forms and information to CAB members on the rules pertaining to leadership positions. A slate will be ready for election at the March meeting.
3. DOE and Support Staff to initiate membership recruitment and to plan meeting of membership committee to identify slate of candidates to DOE.
4. DOE to invite Idaho Falls Mayor's Youth Council to the next CAB meeting.

Members provided written feedback forms to support services at the conclusion of the meeting. Presentations given at this meeting are available on request from the INL EM CAB Support Staff.

I certify that these minutes are an accurate account of the January 12, 2011, meeting of the Idaho National Laboratory Site Environmental Management Citizens Advisory Board.



02/02/11

R. D. Maynard, Chair  
Idaho National Laboratory Site Environmental Management Citizens Advisory Board  
RDM/ph