



# **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**

November 15, 2011

The Idaho National Laboratory (INL) Site Environmental Management (EM) Citizens Advisory Board (CAB) held its bi-monthly meeting on Tuesday, November 15, 2011, at the Hilton Garden 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**

Willie Preacher, Chair  
Herb Bohrer  
Sean Cannon  
Harrison Gerstlauer  
Harry Griffith  
R.D. Maynard  
Robert Rodriguez  
Tami Sherwood  
Teri Tyler

**Members Not Present**

Nicki Karst, Vice Chair  
Mark Lupher  
Bill Roberts  
Fred Sica  
Bruce Wendle

**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  
Susan Burke, State of Idaho  
Daryl Koch, State of Idaho  
Tom Dieter, Idaho Cleanup Project (CWI)

**Others Present**

Marie Mathis  
Dan Walker, KYNF  
Mark Hutchison, KYNF  
Natalie Packer, ICP  
James Powell, KYNF  
Bill Lapsansky  
Bruce LaRue, DEQ  
Mark Dehring, Fluor  
Bruce Begg  
Michell Walker, DEQ  
Beatrice Brailsford, Snake River Alliance  
Andrea Gumm, Langdon Group  
Erik Simpson, ICP  
Scott Van Camp, DOE-ID  
Jim Malmo, DOE-ID  
Ted Livieratos, DEQ  
Teresa Perkins, DOE-ID  
Don Rasch, DOE-ID

Chris Henvit, Naval Reactors  
Robert Bodell  
Lane Allgood, PST  
Kathy Falconer, Areva  
Wendolyn Holland  
Brandt Meagher, ICP

Lori McNamara, Support Services  
Bryant Kuechle, Support Services Facilitator  
Peggy Hinman, Support Services

## Opening Remarks

Willie Preacher, Chairman of the Idaho National Laboratory (INL) Site Environmental Management (EM) Citizens Advisory Board (CAB), welcomed the group to the meeting. Jim Cooper, the Department of Energy (DOE) Deputy Designated Federal Official, welcomed the group and the members of the public in the audience. He commented that the DOE EM budget is an item of interest, and there will be two presentations on the budget at this meeting.

Dennis Faulk, Environmental Protection Agency (EPA) Region 10, noted that the day before the CAB meeting there was a celebration of the American Recovery and Reinvestment Act (ARRA) work that had been accomplished. He was especially pleased to see the progress on the Test Reactor Area (TRA) hot cells. Another topic of interest to EPA is ordnance; EPA and the State of Idaho are meeting with DOE tomorrow to discuss ordnance cleanup activities over the next year.

Susan Burke, State of Idaho, commented that she missed the last CAB meeting because she had been in Denver attending a hearing on the draft reports issued by the DOE Blue Ribbon Commission on America's Nuclear Future. She noted that the website of the Blue Ribbon Commission was very informative and that all comments on the draft reports are available on this website. She can also provide the State's comments to anyone who would like them.

Daryl Koch, State of Idaho, commented that he was interested in how the Environmental Impact Statement (EIS) on the Greater-Than-Class C (GTCC) waste was progressing. GTCC waste and Remote-Handled (RH) Low-Level Waste (LLW) are not part of his responsibilities under the Comprehensive Response, Compensation and Liability Act (CERCLA) project, but the State is interested in these waste projects. The State has been looking at the modeling done on both projects. He has reviewed many interesting comments on the GTCC EIS from across the nation. Mr. Koch noted that the comment period on the RH-LLW Environmental Assessment (EA) is still open.

Tom Dieter, CH2M WG Idaho (CWI) thanked the CAB members and liaisons for their support for cleanup, which has led to the accomplishments that are now being realized. The cleanup efforts have been intensive since 2005. The Idaho Cleanup Project (ICP) is ahead of schedule and would like to continue its work into the future.

## Recent Public Involvement

Mr. Cooper provided a summary of recent public involvement activities. The public review period for the RH-LLW EA was extended until November 21. The open house held yesterday on ARRA accomplishments was well attended. ARRA accomplishments include an additional acre of waste exhumed and 48 additional buildings decontaminated and demolished (D&D). He expressed appreciation for the involvement of the CAB in reactor D&D and Subsurface Disposal Area (SDA) exhumation.

## Information on Recent Radiological Incident at the Materials and Fuels Complex

Mr. Cooper introduced Sharon Dossett, Director of Environment, Safety and Health, for Battelle Energy Alliance (BEA), to talk about a recent event involving radiological exposure to workers at the Materials and Fuels Complex (MFC). She related that BEA employees have been inspecting nuclear fuel plates at the Zero Power Physics Reactor (ZPPR) at MFC. On the morning of November 8, a container wrapped in plastic was to be inspected. The workers received approval to cut through the plastic and open the container. A smear was taken of the plastic and it was determined to contain contamination, which was not part of the plans for conducting the work. While they were putting things into a safe condition, an alarm went off and the area was evacuated. The sixteen (16) workers were immediately evaluated for exposure to plutonium and will continue to be evaluated until the dose each worker received from the event can be calculated. Plutonium is more of an internal hazard than an external hazard. Lung scans are not very effective for assessing exposure. Fecal and urine samples must be analyzed. It will not be known

what dose was received for several weeks. In response to a question from Mr. Preacher, Ms. Dossett noted that a worker standing to the right of a worker who was behind a shield received the most contamination. The Continuous Air Monitor was not located in an optimum location for worker protection. In response to a question from Robert Rodriguez, Ms. Dossett replied that six (6) workers had positive nasal smears; seven (7) had positive contamination on their skin; and 16 had contamination on their clothing. The dose received by each worker depends upon the individuals and how their bodies react to the contamination.

Herb Bohrer asked about the investigation that was being conducted by DOE. Ms. Dossett replied that it is expected to be completed in early December. A lung scanner from INL Building 690 that is owned by CWI was used. Follow-up scans were conducted on three (3) employees and indicated that a scan of one employee revealed the presence of Americium-241, an isotope that indicates that the employee may have inhaled plutonium.

Tami Sherwood asked if the dose received would prevent the workers from performing radioactive work in the future. Ms. Dossett replied that the dose was low enough that it would not prevent the workers from doing radiological work. In response to a question from Harrison Gerstlauer, Ms. Dossett replied that the work activity involving the fuel plates at ZPPR had been done on a counter for the last five (5) to ten (10) years. She did not know whether it had been conducted in a glove box before that. The period of time between the exposure and the evacuation was about 5 minutes.

Sean Cannon asked whether procedures were being reviewed. Ms. Dossett replied that all procedures and plans were being reviewed. A plan to allow re-entry into ZPPR has been prepared and was being reviewed. The work itself will not be done in the same way in the future.

R.D. Maynard asked how it was possible that only one person had internal contamination if 6 had positive nasal smears. She replied that she has discussed with experts the validity of a nasal smear. Experts agreed with her that a positive nasal smear may be a sign of internal contamination or it may be a false positive. All workers will be monitored until the dose can be determined. Some samples have been sent to Savannah River which has a quick scan capability, but she has not seen the results. The internal contamination would increase the likelihood of an increased cancer risk. Plutonium is toxic to the kidneys but the dose received was not high enough to pose harm to the kidneys.

Mr. Gerstlauer asked if any briefings had been conducted prior to the job. Ms. Dossett replied that there had been pre-job briefings, but the risk of the work was not understood. The work had been done before without incurring contamination. Mr. Faulk asked if some of the workers received chelating shots. Ms. Dossett replied that some of the workers elected to have chelating injections, which bind all the metals. Mr. Koch commented that plutonium-249 and -240 can get spread around in unexpected ways when it is loose. Ms. Dossett agreed that work with those radionuclides is not conducted out in the open due to their properties.

## **Progress to Cleanup**

Mr. Cooper provided a presentation on progress to cleanup including ARRA work. The presentation addresses Safety Performance, Transuranic (TRU) Waste Disposition, the Advanced Mixed Waste Treatment Project (AMWTP), CERCLA Remediation, the Idaho CERCLA Disposal Facility (ICDF), D&D, the Integrated Waste Treatment Unit (IWTU), Spent Nuclear Fuel, and Calcine Disposition. Mr. Cooper noted that D&D work has been completed at Test Area North, Advanced Test Reactor (ATR), Idaho Nuclear Technology and Engineering Center (INTEC), and the Power Burst Facility. The only facility where D&D remains is the MFC. Transfer of nuclear materials from EM facilities has also been completed.

CWI's safety performance improved in September and October of 2011. In September there were three first aid cases and one recordable injury. In October there were four first aid cases and no recordable injuries. In October, three reportable incidents occurred: legacy contamination was discovered while clearing debris and weeds from ditches at ATR; personnel contamination was detected after loading a waste box at ATR; and an employee received a mild shock from a desk lamp.

There was an uptick of safety issues at AMWTP, which is operated by Idaho Treatment Group (ITG). In September there was one first aid case and three recordable injuries. In October there was one first aid case and no reportable injuries. In October, two reportable incidents occurred: a failure to complete refresher training for alternative methods for alternative energy control; and an increasing trend in contamination incidents related to contaminated cell entries.

Mr. Cooper informed the CAB that he has invited the new ITG president to attend its January 2012 meeting to discuss the strategy for conducting the work at the AMWTP. Mr. Preacher asked if there was a possibility that ITG would hire back some employees. Mr. Cooper indicated that ITG was thinking of re-hiring some radiological control workers and trainers to address the uptick in safety issues that it was experiencing.

Mr. Cooper described progress related to TRU waste disposition. In Fiscal Year (FY) 2011, 4,365 m<sup>3</sup> of contact-handled (CH)-TRU waste was shipped to the Waste Isolation Pilot Plant (WIPP). Also, 10.35 m<sup>3</sup> of the inventory of 13.48 m<sup>3</sup> of RH-TRU was shipped to WIPP. Characterization of 1,000 drums from the inventory of 1,500 drums of CH-TRU exhumed from the Accelerated Retrieval Project (ARP) VI was completed using ARRA funds. Upcoming activities include continuing CH-TRU shipments to WIPP; resuming RH-TRU shipments to WIPP; and transport, treatment, and disposal of LLW and Mixed LLW (MLLW) offsite.

Activities at AMWTP include successful transition of AMWTP operations to ITG. AMWTP employees have worked more than 12.5 million hours without a lost-time injury. In October, 43 shipments of TRU waste were sent to WIPP. ITG is implementing its strategic plan for the facility. Upcoming activities include the restart of retrieval operations.

Mr. Cooper then addressed CERCLA remediation activities at the INL. In September and October, the Operable Unit (OU) 3-14 Phase I paving and pre-final inspection were completed; the Munitions and Explosives of Concern (MEC) remediation was completed; draft completion reports for TRA-74 and Central Facilities Area (CFA)-54 were submitted; and nine (9) Waste Area Group (WAG) specific ecological risk assessment reviews were completed. Upcoming activities include finalizing the OU 3-14 designs and completing the OU 3-14 Phase I pre-final inspection report. At the ICDF, the disposal and grouting of the TRA Hot Cells was completed. Upcoming activities at ICDF include disposition of debris from MFC D&D activities and disposition of soil from the excavation of the TRA-632 lines.

At WAG 7, ARPs I through VI have been completed. Thus far, a total of 5,525 m<sup>3</sup> of waste has been packaged and 2.96 acres have been exhumed. ARP VII, VIII, and IX remain. In situ grouting of 21 locations has also been completed. Subsurface solvent extraction using the Organic Contamination Vadose Zone (OCVz) system continues, as do environmental monitoring and institutional controls. Activities in September and October 2011 include commencement of turnover and startup of ARP VII. Upcoming activities include commencement of exhumation at ARP VII, completion of modifications to ARP III to allow exhumation of an additional .06 acres of waste, and continued construction of ARP VIII.

Mr. Griffith asked whether there were concerns about the integrity of the ARP VIII structure as it was to be the largest structure to date for exhumation at the SDA. Mr. Cooper replied that the project would go through the engineering and design processes needed to make sure it would withstand wind and weather conditions.

Mr. Cooper provided information on D&D objectives under ARRA and based project funding. He provided a table summarizing D&D activities for the calendar year to date (CTD) as follows:

<b>Metric</b>	<b>Planned (CTD)</b>	<b>Actual (CTD)</b>	<b>Goal</b>
Total Facilities Demolished	194	219	223
Facilities D&D Base	102	131	131
Facilities D&D ARRA	92	88	92

In September and October, ARRA funded D&D activities at TRA included completion of demolition of TRA-610 and completion of the transport of the 1.5-million pound TRA-632 Hot Cell to the ICDF. Upcoming activities include removing the underground line from the hot cell and closing out the D&D activities. At INTEC, D&D work scope was completed and upcoming activities include finishing project close-out documentation. At MFC, treatment of passivated sodium is approximately 60% complete. Decontamination work continues in the Experimental Breeder Reactor (EBR)-II reactor. It is expected that the passivated sodium treatment will be completed by the end of January.

Mr. Cooper addressed a recent event related to sodium treatment at MFC. The process for the treatment of sodium involves the intentional reaction of the sodium with moisture, which is done in a controlled configuration as part of normal operations for this project. On Friday, November 11, 2011, a sodium reaction resulted in a sudden pressure increase, which compromised the system integrity. The compromise in the system set off fire alarms in the vicinity.

Ms. Sherwood asked what caused the event. Mr. Cooper replied that when the treatment solution reached the sodium in a pipe, the reaction occurred. It is suspected that the solution went through the passivated sodium and encountered elemental sodium. In response to a question from Mr. Rodriguez, Mr. Cooper replied that a reaction is expected when doing the treatment and therefore the project is conducted remotely. The reason the issue occurred is that the pipe that was being treated had a bend where it protruded from the building exterior wall and the reaction probably occurred where the pipe bent. One individual had some redness around his face and was taken for evaluation. The event is being reviewed. Mr. Cooper believes that CWI took the proper steps.

Mr. Cooper explained that the individual who received redness in his face had come out of the monitoring station when the pipe began making a loud banging sound. He may have walked through a mist or plume. Mr. Dieter informed the CAB that he went to the hospital with the individual. The individual believed that any redness on his cheek was due to past skin cancer removal. The doctor confirmed that no burns or redness were observed. Mr. Dieter explained that the building was built for sodium work and is intended to control a reaction. An expert is arriving this week to review the situation. It is thought that the loud noise may have come from water in the system. No one is allowed in the exclusion area when treatment is occurring due to the potential hazards. CWI is looking at its protocol for evacuating the building. Mr. Cooper noted that if the event had occurred in a pipe inside the building instead of in a pipe in the exterior wall, it probably would not have been reported as it is an expected type of occurrence during the treatment process. Mr. Dieter explained that there was still solution in the pipe but that it was covered with an inert gas to minimize further reactions until the review is completed. There was no damage to the system as a result of the event.

Teri Tyler asked if the operator has control over the flow rates. Mr. Dieter explained that there are metered pumps and that infrared cameras inside the pipes monitor the temperature. The amount of hydrogen, heat, and fluid are all monitored. Ms. Tyler asked if the operations manual addresses this situation. Mr. Dieter replied that this is in the manual and that the operator followed the manual to initiate emergency response actions when the problem was encountered. The pipe was a 12-inch schedule 80 pipe. The force ripped the end of the pipe off.

Mr. Cooper then provided a status of the IWTU Project. The Hot Nitrogen Integrated Systems test was successfully completed on October 20. Upcoming activities include completion of the Management Self Assessment, completion of the contractor's Operational Readiness Review (ORR), and completion of the DOE ORR. The contractor ORR is scheduled to start November 28. The federal ORR is scheduled for a January 3, 2012 start. Ms. Sherwood noted that when the sodium is being treated at MFC, it results in a waste stream. She asked whether this waste stream is to be treated in IWTU. Mr. Dieter explained that the MFC sodium waste from the treatment process will be disposed outside of Idaho and would not be processed through IWTU. Mr. Dieter estimated that there are about 7,000 gallons of waste generated to date from the sodium treatment, and more will be generated as part of closure of the system.

Work on the INTEC tank farm closure has started. Workers have begun placing tents for containment during cleaning activities. Upcoming activities include beginning design work for closure (grouting and washing) of the last four tanks.

Mr. Cooper provided a status on spent nuclear fuel (SNF) disposition. The transfer of legacy, EM-owned SNF from wet storage to dry storage has been completed. A segregation fence has also been completed in order to prepare special nuclear material facilities for transfer to another entity. Key activities in September and October include completion of two EBR-II cask shipments to MFC, the receipt, and unloading of three ATR fuel casks from ATR, completion of concrete repairs on the Three Mile Island (TMI)-2 storage facility, and initiation of activities for TMI-2 Nuclear Regulatory Commission (NRC) license renewal. EBR-II cask shipments will recommence in January 2012.

Mr. Cooper concluded his presentation with identification of items of potential interest to the CAB. These are the FY 2012 budget, the ITG contract management, and the IWTU operational startup.

### **Discussion**

In response to a question from Mr. Bohrer, Mr. Cooper replied that the new road between MFC and INTEC was operational. Its use is restricted to shipments to and from MFC.

Ms. Sherwood asked about the outcome of the WAG 9 ecological reviews. Jim Cooper responded that the analysis has been completed, and the DOE is evaluating the results. The CAB will be provided additional information when the evaluations are complete.

### **Idaho Cleanup Project Contract Extension**

Mr. Cooper discussed the ICP contract extension. DOE prepared a position paper requesting an extension of the contract. The Secretary of DOE agreed, and the issue has been through a 30-day comment period at Congress. However, before a final decision can be made, there are some issues to be resolved between DOE and CWI. Three milestones have been at issue. The first was a commitment for CWI to complete a Management Self Assessment for the IWTU. This was completed ahead of schedule. The second is achieving Critical Decision (CD)-4, allowing start of operations of IWTU by the end of November. CWI will not meet this milestone. This missed milestone raises questions whether the extension should be issued. The third milestone is completion of treatment in IWTU by the end of December 2012, which CWI should meet. DOE must decide whether the failure to meet the CD-4 milestone for start of operations is a sufficient basis not to extend the contract. If the contract is not extended, it will have to be re-competed. A re-compete could cause issues with regard to meeting cleanup obligations because of the time involved for the re-compete action. The decision on a re-compete is being made by the DOE Assistant Secretary for EM.



DOE-Idaho (ID) is concerned about meeting the 2015 cleanup commitments if there is a re-compete. Mr. Cooper wanted the CAB to understand why there are issues related to the contract extension. Mr. Koch noted that the State of Idaho is in favor of an extension. He noted that even if the remediation side of the contract could be extended, it would be difficult for any company other than CWI complete the IWTU. He commented that the State was concerned about this.

### **Discussion**

R.D. Maynard commented that disruption of the workforce was an issue. He is concerned about a drop in production and safety if there is a re-bid. He feels that DOE Headquarters needs to look at this.

### **Advance Mixed Waste Treatment Project Status**

Jim Malmo provided a presentation on the AMWTP contract status. He reviewed the AMWTP key facilities. He provided a timeline of the project and the different contractors who had worked on the project. In the 6 years that BBWI had the contract, there were 14 contract extensions. He did not feel this was the correct way to proceed as it disrupts the work force and creates turmoil. He hopes that this situation will be avoided for CWI.

Mr. Malmo provided background on the ITG contract award. On May 27, 2011, DOE-ID awarded the AMWTP completion contract to the ITG. ITG was to take over on August 1, but a protest was filed on June 14, invoking an automatic stay of performance. On July 29, the protest was withdrawn. ITG took over on October 1, 2011, after a 45-day transition period. The ITG team consists of Babcock & Wilcox, URS, and EnergySolutions. The contract baseline cost is \$417 million. The contract scope is to ship all waste out of Idaho by September 2015. The workforce was reduced from 840 to 620 employees. Fee to ITG is paid only when waste is shipped out of Idaho. ITG is currently reviewing its employee numbers and evaluating hiring more employees.

Mr. Malmo provided a table showing AMWTP progress-to-date. Since 1999, 45,097 m<sup>3</sup> of waste out of approximately 65,000 m<sup>3</sup> of waste that was historically managed as TRU waste has been shipped out of Idaho. A milestone for the DOE complex was met in October with the 10,000<sup>th</sup> shipment of TRU waste to WIPP. Shipments from INL account for nearly half of the total shipments. Mr. Malmo provided a map showing the sites that had shipped waste and the corresponding amounts of shipments by DOE site. Regarding safety performance, 12.5 million-man hours have been worked without a lost-time injury. This is almost eight years. ITG's goal is "Target Zero" accidents and injuries. ITG plans to retain Voluntary Protection Program (VPP) Star Site status and to implement its Integrated Safety Management System. ITG will also have an employee-based safety program called the Employee Safety Improvement Team, which participates with the union.

Mr. Malmo addressed the Retrieval Contamination Enclosure/Inner Contamination Enclosure (RCE/ICE). Operational events disclosed the need for enhanced confinement of retrieval activities inside the TRU Storage Area Retrieval Enclosure (TSA-RE). A significant amount of the oldest waste is yet to be retrieved. There are 800 boxes in various stages of degradation and 19,000 drums that have been in place since 1971. Construction of the RCE/ICE began in April 2011 and was completed July 31, 2011. ITG will provide a start-up plan for the RCE/ICE to DOE in November 2011.

Mr. Rodriguez asked about the hazards involved with the retrieval. Mr. Malmo replied that the RCE/ICE was put in place so that the retrieval could be done remotely without having workers perform it manually. Mr. Maynard commented that he understood ITG eliminated their training people. Mr. Malmo confirmed that ITG had planned to purchase its training from an outside contractor, but realized that it needed in-house capabilities. ITG has hired people back in the areas of training and radiological controls.



Mr. Malmo explained that there are 850 m<sup>3</sup> (4,000 – 5,000 drums) of organic polychlorinated biphenyl (PCB)-contaminated sludge waste remaining. The old process involved processing sludge drums one at a time through the Drum Treatment Tent in WMF-628. This resulted in a rejection rate for WIPP of about 30%. It was also manually labor intensive. A new process is being instituted in the treatment facility. A Remote Brokk arm mixes the sludge with Microcell-E solidification agent in a trough. The drums enter as a 6-pack and exit in new liners through a glove box. As of October 31, 2011, 66 drums were processed. Improvements are still being pursued to address the amount of waste generated through the process (i.e., the old drums and over pack material). ITG is looking at other ways it could treat the PCB sludge waste stream.

Offsite CH-TRU waste has been received from eight sites during calendar year 2011. The total amount of waste received is approximately 137 m<sup>3</sup> through October 31, 2011. The estimated volume that might yet be shipped this calendar year is approximately 3 m<sup>3</sup>.

### **Discussion**

Mr. Preacher asked if any of the operations work-force would be brought back. Mr. Malmo replied that it is up to ITG to decide what additional operations personnel will be needed. The best way to treat sludge is being evaluated. A downside to treatment of sludge in the box line is that it takes away from treatment of the debris waste. ITG wants to treat sludge in the RCE/ICE, but it depends on when the RCE/ICE will be operational. Ms. Sherwood asked about ITG's plans to use an auger. Mr. Malmo indicated that ITG is evaluating its options, but they would like to leave the sludge treatment process in place as an added capacity and then add the auger into the box line. Some space will have to be freed up to accomplish this. The addition of the auger would speed up treatment as the entire drum would be ground up so that the material would not need to be removed from the drum. The issue with combining the treatment processes is that different waste streams would be treated, and these waste streams must be kept separate. Once ITG stops treating sludge in the box line, it may be able to put the auger in place.

Mr. Gerstlauer asked about the consistency of the sludge. Mr. Malmo described it as clay with the water evaporated out. It is like cement. However, there is still some water associated with it which has worked its way to the outside. The drums are damaged in the process of removing the material.

### **DOE-ID Environmental Management Cost/Funding Updates**

Jeff Miller provided a presentation on DOE-ID EM Cost/Funding Updates. He reviewed FY-11 cost and funding, DOE-ID FY-12 funding marks, and FY-12 current cost and funding. He provided a summary of FY-11 cost and funding. The uncosted balance from 2010 base funding was \$55.7 million. At the end of the year, this was down to \$7.6 million. The ARRA uncosted balance in 2010 was \$201.3 million. It was down to \$40.5 million at the end of the year. Mr. Miller then reviewed the DOE-ID FY-12 funding marks. He noted that the funding is currently under continuing resolution. Small bills are being planned to attempt to get funding secured for the year instead of an omnibus funding bill. For FY-12, \$392 million was requested; the Senate mark is \$389 million. One question is the control level for funding. Right now, the Idaho Site is the control level and this would allow flexibility to move funding between accounts. For FY-12, DOE-EM is currently at an approved funding profile of \$381 million with \$389 available to cost. DOE-ID plans to spend \$398 million and therefore estimates that an additional \$10 million of funding is needed. Uncosted 2011 ARRA funding of \$40.5 million will also be used.

### **Discussion**

R.D. Maynard asked about the budget requests and Mr. Miller clarified that the numbers are the DOE-Headquarters request. This does differ from what DOE-ID had requested. In reply to a question from Mr. Faulk, Mr. Miller stated that if the funding projected to be received is actually received, DOE-ID will be able to meet its funding obligations.

## Greater-Than-Class C Environmental Impact Statement

Mary Willcox provided a briefing on the DOE GTCC EIS. DOE is preparing an EIS for disposal of GTCC Low-Level Radioactive Waste (LLRW), document number DOE/EIS-0375D. The EIS evaluates potential alternatives for involving various disposal methods. Six federally owned sites and generic commercial sites are being evaluated. GTCC LLRW is LLRW generated by NRC licensees or Agreement State licensees that contains radionuclide concentrations exceeding NRC limits for Class C low-level waste as defined in 10 CFR Part 61. DOE also has GTCC-like wastes. This is LLRW that is owned or generated by the DOE. It includes potential non-defense-generated TRU waste that is not accepted at WIPP. GTCC LLRW and GTCC-like waste includes sealed sources, which consist of small quantities of highly radioactive materials enclosed in metal containers; activated metals resulting from decommissioning nuclear reactors; and other waste which results from other DOE missions, including domestic production of medical isotopes, power systems supporting space exploration, and cleanup of commercial and DOE sites. The proposed action of the EIS is to construct and operate a new facility or facilities or use an existing facility for the disposal of GTCC LLRW and GTCC-like waste. Ms. Willcox then addressed the purpose and need for the project. There currently is no existing disposal facility for GTCC waste. The federal government is responsible for the waste under section 3(b)(1)(D) of the Low-Level Radioactive Waste Policy Amendments Act of 1985. There is a need to respond to national security concerns regarding disused sealed sources. The project supports U.S. programs including programs for medical isotope production, clean energy, and deep space exploration. The project also implements environmental stewardship by supporting DOE and commercial cleanup commitments.

The range of alternatives considered in the draft EIS reflect four proposed disposal methods: above-grade vault waste isolation, which would be located 0 to 12 meters above ground surface; enhanced near-surface trench waste isolation, which would be located at 5 to 10 meters below ground surface; intermediate-depth borehole waste isolation, which would be 30 to 40 meters below ground surface; and a deep geologic repository (WIPP), 655 meters below ground surface. Six DOE sites (Hanford, INL, Nevada National Security Site, Los Alamos National Laboratory, Savannah River Site, and WIPP) plus a site in the vicinity of WIPP are being considered. DOE is evaluating various considerations for selection of a preferred alternative or alternative. The preferred alternative may be a combination of alternatives based on the waste type (e.g., activated metals, sealed sources), waste generation timing, and the potential impacts on human health and the environment from the waste types and disposal methods analyzed. Eleven (11) resource areas are evaluated in the Draft EIS: climate, air quality and noise; geology and soils; water resources; human health; ecology; socioeconomics; environmental justice; land use; transportation; cultural resources; and waste management.

Public involvement has included public hearings that were held at nine locations between April 19 and May 25, 2011. One of the hearings was in Idaho Falls on May 11, 2011. DOE received over 5,000 comments from over 500 individuals and organizations including State and local governments, Tribal Governments, non-government organizations, and private citizens. The process of comment response involves sorting and consolidating comments that are similar in nature and developing responses to the comments received. DOE sites are involved in responding to comments that specifically apply to their site. On September 8, 2011, the Draft GTCC EIS public hearing transcripts became available to the public. The transcripts can be reviewed or downloaded from the Public Hearings page of the DOE website (<http://www.gtccceis.anl.gov>).

Considerations for the preferred alternative(s) for the Final EIS include the public comments; waste type considerations such as radionuclide inventory, waste form stability, physical characteristics, and availability for disposal; disposal method considerations including inadvertent human intrusion, construction and operational experience, post-closure care, and cost; and disposal location considerations including potential human health impacts (including cumulative impacts), cultural resources and tribal concerns, laws, regulations, and other requirements. The preferred alternative could be a combination of two or more alternatives, based on these considerations.

Next steps involve completing comment resolution; developing the Final EIS with a preferred alternative in consideration of the public comments; issuing the final EIS in late 2012; issuing a report to Congress for Congressional action; issuing a Record of Decision in 2013; and implementing the selected alternative or alternatives. Some alternatives may require new or modification to existing legislation for implementation.

### **Discussion**

Mr. Bohrer noted that the CAB had commented in opposition to an alternative of Idaho for disposal of GTCC waste. Ms. Willcox related to the group that the Governor of Idaho had also commented that the State was not interested in Idaho being a disposal facility for this waste. Mr. Gerstlauer asked about the reactor vessels on the INL Site and how they would be classified. Ms. Willcox clarified that there were some miscellaneous waste streams on the INL that would be considered GTCC, but that the reactor vessels were not considered GTCC. The reactor vessels on the INL Site have been disposed at the ICDF. Most of the GTCC waste at the INL Site is waste that the NRC has requested Idaho to take possession of as part of NRC investigations at other sites.

Mr. Gerstlauer noted that INL has received reactor vessels in the past at Idaho. Ms. Willcox clarified that the State of Idaho no longer wanted that disposal to take place here. Mr. Gerstlauer asked about medical waste. Ms. Willcox replied that medical waste was part of the waste being considered for disposal as part of the GTCC EIS. Ms. Willcox noted that most sites are continuing to store their GTCC waste on site until alternatives are identified. There are disposal options for LLRW that does not meet the criteria for GTCC waste, but if the LLRW has the isotopes and concentrations that classify it as GTCC, it must remain where it is until alternatives are identified.

Mr. Gerstlauer noted that there is a substantial amount of waste that needs alternatives. Ms. Willcox agreed and noted that additional waste will be generated when the commercial reactors go through D&D.

Mr. Rodriguez asked about the statement in the presentation that some alternative may require new legislation or modifications to existing federal legislation for implementation. Ms. Willcox replied that one example would be the need to change the legislation for WIPP since WIPP is now limited to defense-related waste. Ms. Willcox explained that the GTCC waste is different from the high-level waste that had been planned for disposal at Yucca Mountain.

Mr. Bohrer asked how many cubic meters of GTCC waste was involved. Ms. Willcox replied that it was 12,000 m<sup>3</sup>.

### **Environmental Management FY 2012 Work Plan for Idaho Cleanup Project**

Mr. Cooper provided a discussion of the FY 2012 work plan for ICP activities. He distributed a large exhibit that depicted detailed planning information. He explained the contents of the exhibit and described the planned scope for waste management and facilities disposition in FY 2012. Mr. Gerstlauer asked if there was any other money that came into DOE-ID other than the EM money. Mr. Cooper replied that in addition to the EM funding there is funding from the Navy and from Nuclear Energy. This money cannot be used to meet the EM funding shortfall, however, because it would be associated with work scope from those other entities. DOE is short EM funds for EM work.

Mr. Griffith asked where the largest risks are for the EM planning for FY 2012. Mr. Cooper replied that there were three areas of risk. The first is final D&D at EBR-II. There is still sodium to be treated at the EBR-II sodium boiler building and this will take longer than planned. ARRA funds will run out and base funding will be needed. This work will not be completed until 2013. The second risk is the IWTU. This facility is critical to meeting regulatory milestones. If problems are identified during the ORRs, the schedule will be impacted and funding for operations will have to be spent. The third risk is RH-TRU waste processing.

There are risks with treating RH-TRU waste. It must be done remotely and takes a lot of time. If there is an issue, it could shut down the process which could result in missed milestones or loss of the facility for other customers.

Mr. Gerstlauer asked if there were other funding sources to support AMWTP. Mr. Cooper explained that funding for AMWTP comes from the EM funding. The difference is that there are performance measures related to waste shipped out of state. Mr. Gerstlauer asked about the TRA hot cell and removal of the underground buried line. Mr. Cooper replied that there was about 100 feet of underground line to be removed. It was not as contaminated as previously thought. Removal of the underground line should be completed in the May 2012 timeframe.

## **Public Comment**

No public comment was provided.

## **Status of Accelerated Retrieval Project**

Doug Pruitt provided a presentation on the status of the following activities at the SDA: the ARP construction progress; targeted buried waste retrieval; shipment of TRU waste to the WIPP; and removal of organic compounds from the vadose zone (OCVZ).

ARP construction progress includes completion of ARP VII, which is located over Pit 10W. Exhumation of waste is expected to begin in January 2012. CWI has started construction of ARP VII, which is located over Pits 1 and 2. Construction is expected to be complete by September 2012. ARP IX, which is over Pit 10E, is in the design phase. This is the last ARP planned, and it will be constructed in FY 2013.

Mr. Pruitt provided details of ARP VIII. At approximately 122,000 ft<sup>2</sup> (1.72 acres), it is more than twice as large as the other ARP structures. It is being designed and constructed by CWI. Site preparation started in July 2011. Construction (erection of steel) will start in November 2011 upon CD-3 approval.

Mr. Pruitt addressed the status of waste retrieval operations. The goal is to retrieve 7,485 cubic meters of targeted waste. Through October 2011, 5,525 m<sup>3</sup> (26,564 drums) or 74% of the waste has been retrieved; 5,198 cubic meters (24,988 drums) or 69% has been shipped offsite. The goal is to exhume targeted waste from 5.69 acres in the SDA. Through October 2011, a total of 2.96 acres has been exhumed or 52% of the requirement:

- 0.50 acre was exhumed from ARP I (Pit 4) and was completed in March 2008.
- 0.34 acre was exhumed from ARP II (Pits 4/6) and was completed in June 2009.
- 0.43 acre is to be exhumed from ARP III (Pit 6).
- 0.38 acre was completed in October 2009, and 0.06 acre between ARP II and III will be exhumed in FY 2012.
- 0.79 acre was exhumed from ARP IV (Pit 5) and was completed in January 2011.
- 0.55 acre was exhumed from ARP V (Pit 9) and was completed in August 2011.
- 0.40 acre was exhumed from ARP VI (Pit 4W) and was completed in October 2011.

Between January 1996 and October 2011, the OCVZ units have removed approximately 236,519 lbs. of total organic compounds from the vadose zone under the SDA. Approximately 137,035 lbs. of the compounds have been carbon tetrachloride.

Mr. Pruitt addressed plans for the future. In FY 2012 targeted waste will be exhumed from ARP VII; the remaining grids in ARP III will be exhumed; ARP VIII (Pits 1 and 2) will be constructed; and D&D of ARPs I and VI will take place. In FY 2013, plans are to design and construct ARP IX (Pit 10E). In FY 2015, plans are to complete all exhumations and ship the remaining waste offsite.

Mr. Pruitt pointed out the plans to use a corridor to connect ARP VII and VIII so that equipment can be moved between the two facilities without the need for decontamination. This is an efficiency that has been developed as the projects have progressed.

### **Discussion**

Mr. Maynard asked why there was no similar corridor for Pit 9. Mr. Pruitt replied that there were fire water lines and other infrastructure that prevented construction of a connecting corridor. Mr. Preacher asked about workers inside the facilities and what radiological exposure they would receive. Mr. Dieter replied that the dose rate was very low because the material was from Rocky Flats. The big concern is contamination and that is why protective equipment and respirators are used.

Mr. Koch indicated that the items that would normally give off a dose are not being removed from the pits. Mr. Maynard commented that waste that cannot be shipped may be encountered. He asked what was done with that waste. Mr. Pruitt replied that if the waste was not one of the six targeted types, it is returned to the pits. Ms. Burke commented that she went out to ARP recently with the State employee who oversees compliance with the buried waste exhumation. They had the opportunity to look into ARP V because it had been completed. Then they also saw ARP VII which has not yet been activated for exhumation. She was impressed with the improvements achieved as the ARP project progresses. She has observed that the work is being done more quickly than thought and is being done in a compliant manner.

### **DOE American Indian Program**

Bob Pence provided a presentation on the DOE American Indian Program. DOE has had a formal relationship with the Shoshone-Bannock Tribes since 1992. Tribal sovereignty defines the relationship. Sovereignty is the basis for establishing treaties. This is a government-to-government relationship. There are 581 federally recognized tribes. The Shoshone-Bannock Tribes are briefed on all major activities on the INL. The Tribes participate in the decision process. The DOE formally consults in order to mitigate problems with the Tribes. The DOE American Indian Program is defined by the DOE American Indian and Alaska Native Tribal Government Policy; DOE Order 144.1, *Implementing Order for the Tribal Government Policy*; DOE Order 1220.1A, *Congressional and Intergovernmental Affairs*, which defines the government-to-government relationship; and Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments*.

Mr. Pence reviewed the DOE-ID program agreements. The fundamental agreement is the Agreement in Principle. There is also a Memorandum of Understanding for Middle Butte Cave Access, a Ground Water Sampling Agreement, and a new agreement regarding cave access and the bat white nose syndrome. Mr. Rodriguez asked if there were radioactive material going through tribal lands. Mr. Pence replied that radioactive shipments leave Idaho using Interstate 15, which is through tribal lands. There are days when shipments are excluded such as tribal festival days, due to agreements with the Tribes. Mr. Griffith asked what other sites have Tribal issues. Mr. Pence replied that there are tribal issues at DOE sites including Hanford, Los Alamos, and West Valley. He related that the first shipment of Foreign Reactor Research fuel to INL came from the west coast and passed through the Pyramid Lake reservation. A short-term agreement was put in place to address emergency response during this shipment. Emergency response is also an element of the Agreement with the Shoshone-Bannock Tribes. The Tribes have an emergency response capability to handle any radiological emergency arising from transportation.



## **Environmental Assessment for the Replacement Capability for the Disposal of Remote-Handled Low-Level Radioactive Waste Generated at the Department of Energy's Idaho Site**

Gerardo Islas Rivera provided a briefing on the EA for the Replacement Capability for Disposal of RH-LLW Generated at the Department of Energy's Idaho Site. The current RH-LLW disposal facility on the Idaho Site's Radioactive Waste Management Complex (RWMC) will cease operations and undergo closure as part of the ICP. The DOE must have continuing capability to dispose of RH-LLW generated and stored on the Idaho Site to support ongoing Idaho national security, research, and Naval Reactors Facility (NRF) missions and operations. DOE policy is to assure disposal capability is available before waste is generated.

The proposed action is to site, construct, and operate an onsite disposal facility for RH-LLW generated by Idaho site operations. The facility would be sized for a 20 to 50 year operational period. The impacts of on-site and off-site disposal of LLW generated at the Idaho site were evaluated in a 1995 programmatic EIS. On-site disposal was selected in the 1995 Record of Decision. Siting and construction of a new disposal facility (if needed) was deferred to further project definition and appropriate National Environmental Policy Act (NEPA) review. On April 26, 2010, an EA Determination was signed by the DOE Office Manager.

The Alternative section is the 'core' of the EA. DOE-ID developed criteria to help identify the range of reasonable alternatives to the proposed action that would meet DOE's purpose and need for replacement disposal capability. The on-site disposal alternative involves evaluation of two candidate locations/sites: a location near the ATR complex (preferred site); and a location west of the ICDF near the INTEC. The off-site disposal alternatives involves disposal at the Nevada National Security Site (NNSS). A no action alternative is also analyzed. The no action alternative involves storing the waste at the generator facilities and terminating operations when storage capacity is reached. DOE considered 6 other alternatives but eliminated them from further consideration because they did not adequately meet the selection criteria and DOE's need. Reasons for elimination of these alternatives include lack of availability, unacceptable risks, regulatory constraints, and exorbitant costs. Mr. Islas provided a map showing the location of the alternative sites and the transportation routes being considered.

The on-site alternative, Alternative 1, would involve a new disposal facility on the INL site. This meets all selection criteria and DOE's purpose and needs. Both candidate sites meet the selection criteria, but the site located south of the ATR Complex is more protective of the environment than the location near INTEC. Alternative 1 is DOE's preferred alternative. It supports DOE and Naval Nuclear Propulsion Program missions and operations, giving consideration to economic, technical, risk, and environmental factors.

Alternative 2 is to transport waste to the NNSS for disposal. This alternative would provide continuity of operations because NNSS is currently an operating facility and would be available for the duration needed of up to 50 years. The environmental consequences are comparable with the preferred alternative. Current NRF cask systems are too heavy to be used for transport along public highways and are not certified for commercial transportation. Smaller capacity shipping casks and trailers, along with transfer systems, would be needed. Modifications to infrastructure and operations at all INL generating facilities, including reconfigurations and refurbishment of storage pools to accommodate increased use, would be needed to accommodate these casks and the increased frequency of shipments. Over 100 shipments of RH-LLW from INL to NNSS would take place each year. The risks associated with shipment and the operational risk of not having control of the disposal operation is not desirable. The NNSS is not configured to manage disposal of RH-LLW at this time.

The no action alternative would involve storing RH-LLW at the generator facilities and terminating operations when capacity is reached. The selection of the no action alternative would mean that the proposed activity would not take place. Under the no action alternative, no activities would be conducted by DOE to ensure uninterrupted disposal capabilities for RH-LLW generated at the INL site. RH-LLW from NRF and the INL Site would continue



to be disposed in the SDA at the RWMC until it is full or must be closed in preparation for final CERCLA closure. INL missions supporting research, development and demonstration activities and the activities of the Naval Nuclear Propulsion Program would be seriously impacted by the lack of storage and disposal capacity.

LLW is defined by DOE by what it is 'not'. It is not high-level waste (HLW) or TRU waste; it is also not spent nuclear fuel. The Site's RH-LLW has greater than 200 mrem/hr dose on contact, requiring remote handling and shielding. The RH-LLW is comprised of: ion-exchange resins, which are solid/semi-solid residues from filtration of water in pools and canals at the ATR and NRF; activated metals from ATR, MFC and NRF which include metals, tools, hardware and reactor components that have become radioactive during exposure to radiation; an items associated with the management of RH-LLW such as personal protective gear and miscellaneous trash and debris. RH-LLW does not include liquids, hazardous chemical constituents, TRU waste or HLW. DOE expects to generate about 150 m<sup>3</sup> of RH-LLW per year.

Mr. Islas provided examples of the facility layout and also the final cover that would be placed on the facility when it is closed. The facility would be planned to include a precast reinforced concrete vault base, riser sections and top plugs to provide shielding for onsite workers and limit water infiltration. The waste would be placed into the vaults in steel liners. Each liner would be a steel barrel that 'lines' the vault and isolates the waste. The liners would prevent water contact with the waste and provide structural integrity for a longer period. The liners would allow for more decay to occur to minimize the concentration of potential contaminants. A 2-foot thick interim cover would be placed over the facility as the vaults are filled. This would increase vault stability and provide additional protection against water infiltration. A final engineered cover would be placed over the facility at the end of operations. Additional features of the facility include installation of groundwater monitoring wells to detect contaminants in the aquifer, air monitoring to detect emissions, placement of a berm around the facility to control water run-on from off-site, and security enhancements such as intruder detection and fences to monitor access. The proposed facility would be designed for shielding, long term stability, and groundwater protection beyond what is required and generally implemented.

No significant environmental impacts were identified for alternative one. With regard to cultural resources, few resources were identified in the potentially affected areas; these will be administratively protected. Regarding ecological resources, the affected areas were burned over and little wildlife habitat remains. No impacts to sensitive species were identified. With regard to air emissions, there may be minor emissions during construction; no radioactive emissions are expected during operations. Regarding transportation, the probability of radiological exposure during routine operations is extremely low. There would essentially be no impacts to site workers or the public. Regarding accidents, dose-related latent cancer fatalities to on site workers or the public from accidental exposure and additional injuries from vehicular accidents are very unlikely. Energy use would involve minimal greenhouse gas emissions or climate impact. The results of the groundwater impacts show that no radionuclide contaminant releases to groundwater are anticipated from the beginning of facility operation through the 100 year institutional control period.

The potential exists for contaminants from either of the two candidate sites to migrate into groundwater after the facility degrades, peaking thousands to tens-of-thousands of years in the future. Potential contaminant concentrations are predicted to be well-below the state maximum contaminant level (MCL) for all radionuclides. A cumulative all-pathways dose 100 meters from the proposed RH-LLW disposal facility via groundwater ingestion to a maximally exposed member of the public is predicted to be much lower than the DOE regulatory limit of 25 mrem/year at .88 mrem/year in calendar year 5500. Cumulative impact to the aquifer including existing facilities will be less than 30 mrem/year everywhere in the aquifer. Groundwater would be protected by site selection and engineered features. INL completed an extensive study on flooding and potential impacts on the proposed sites. Under the worst case scenario, onsite water is possible but the likelihood of flooding detrimentally impacting the proposed RH LLW facility is extremely low. Depth to groundwater is about 480 feet with 31- 55 feet of underlying surficial sediments and sediment interbeds in the basalt over the groundwater. Engineered features include cement

vaults, steel waste isolation liners, engineered cover, and a berm. Steel waste liners are estimated to increase facility performance longevity by up to 1 million years; the concrete vaults are expected to last for more than 2,000 years; and the engineered cover is expected to be in place for more than 500 years. Operational controls would include a berm and snow removal to control water during operations. The cover and berm would be maintained throughout the 100 year institutional control period.

For alternative 2, no significant environmental impacts were identified. As the NNSS is an evaluated, operating facility, no environmental resource consequences were anticipated or analyzed. The radiological risk associated with routine transportation is negligible for the public and crew members, but greater than that for the onsite alternative. There would be considerably more greenhouse gas emissions from the offsite alternative; however, emissions are still less than regulatory thresholds.

The draft EA was released for public review and comment on September 1, 2011 for a 45 day comment period and extended 30 days until November 21, 2011. DOE-ID will accept, respond to, and resolve public comments. DOE will then revise and issue the EA, with either a “Finding of No Significant Impact” or acknowledgement of the need for further analysis and decision making. This is expected by January 2012.

### **Discussion**

Mr. Bohrer asked what about the average volume of a liner. Ms. Conner responded that the liners range between 2.5 and 6.8 cubic meters in volume. If the waste is shipped off-site it will be shipped in smaller shipments. Mr. Bohrer asked where the scrap comes from. Mr. Islas replied that it comes from handling of nuclear fuel and materials. Ms. Conner replied that the waste comes from ATR, MFC, and NRF. The waste is debris, structural materials and activated metals.

Ms. Sherwood asked about the cumulative impacts to the aquifer. Does this mean that over the entire life cycle of the facility will there be 30 mrem/year? Mr. Islas replied that the groundwater impacts analysis looked at the entire impact from all facilities.

Ms. Burke asked if any RH-LLW was going to NNSS from INL right now. Ms. Conner replied that when the pit at the RWMC was closed, ATR resins had previously been disposed there. When it was decided to ship contact handled waste offsite, the ATR resins were also sent to NNSS. The NNSS does not have the capability to take the remaining RH wastes from INL due to the high levels of radiation. Ms. Conner clarified that NNSS would have to expand its capability at NNSS in order to take the waste. Ms. Burke asked if an alternative was considered that looked at both NNSS and on site disposal. Ms. Conner replied that in 2006 DOE evaluated sending waste to multiple locations. The evaluation indicated that it was more efficient and cost effective to send the waste to one location.

Mr. Rodriguez asked about the distance between the facilities. It is about 3 miles. Mr. Rodriguez asked why there were such differences between the sites when they were so close. Mr. Islas replied that there were differences in the elevation and the surficial sediment.

Mr. Maynard asked about the configuration of the vaults and whether the vaults would be built as they were needed. Mr. Islas replied that the vaults would be built for a 20 year period with ability to expand and add more vaults to accommodate 50 years of operations. Mr. Maynard commented that this facility would be operating through 2065. The project will support the Navy and potential new missions which go out beyond 2035.

Mr. Faulk asked about the cost of the facility for a 20 year capacity. Ms. Conner replied that the estimated cost is \$60 to \$95M, including infrastructure and transportation.

Mr. Preacher asked about what had caused the alternative on-site locations to be burned. Mr. Islas indicated it was the Tin Cup fire. Mr. Preacher pointed out that things would grow back. Mr. Islas indicated that vegetation would come back and this would minimize impacts.

### **Public Comment**

Beatrice Brailsford, Snake River Alliance, provided public comment. She commented on why questions were not accepted any longer from the public. Her understanding is that public questions will no longer be taken after presentations. She understands that this is from one problem that occurred during one meeting. She has been to years of CAB meetings and there have been no problems. Just because of one problem, that should not be sufficient to put an end to the opportunity for asking questions.

Ms. Brailsford noted that RWMC has had 236,000 pounds of organic compounds sucked out (through use of OCVZ). She has heard that since the turn of the century far less VOCs have been sucked out because the source term has been reduced. She asked how much annually used to be sucked out versus this last year. Mr Brandt Meagher, with ICP, indicated that the source term was being reduced as waste was being exhumed. They used to remove tens of thousands of pounds per year and now it is in the thousands of pounds per year. Mr. Faulk indicated that amounts go down because the same areas are being swept.

Ms. Brailsford commented that the RH-LLW EA is the worst EA she has read. She is not certain what DOE's Office of Nuclear Energy wants the EM CAB to do about the project. The EA has no details. It is not clear where the waste is coming from. What are they doing at the MFC that generates the waste? Whether or not Nevada can take it is unclear. When DOE does not do something it indicates that it is humanly impossible. Her sense is that when we are considering burying a volume of 52 car garages of waste above Idaho's drinking water, it warrants an EIS. The EA does not try to indicate cost or where the waste is coming from. It states burial over the aquifer is not a problem. One site is preferred over another because it is 16 feet further from the drinking water. The EA is not adequate for such an important decision, a decision we have made badly in the past. The consequences of the risk benefit analysis are way over the top but DOE thinks it can be glossed over.

### **CAB Work Session**

Mr. Preacher provided a review of the CAB Chairs meeting. It was held similarly to the chairs meetings. He covered the high points of the presentation. One issue is asset revitalization and legacy management. It is not clear how INL fits into these programs.

Mr. Bohrer volunteered to write a letter supporting the ICP extension. He will put together a first draft by the end of the week and send it to CAB support staff to distribution for review.

The group discussed whether the public should have the opportunity to comment after each presentation. It was decided that this opportunity could be offered at the discretion of the chair, and that it would be limited to questions, not comments. The public comment period is the time for comments. Time limits will be set and ground rules posted for the public comment period.

Mr. Maynard summarized the status of new member recruitment. The subcommittee looked at 14 applications. There were a lot of engineers. We will send letters to the applicants to let them know the outcome of the evaluation. We will let the ones not selected know that they will be kept in the pool. We will let the ones whose names are going forward what the process is for selection.

The CAB discussed new member orientation. The group agreed it would be good to have a half day orientation, followed by a one day tour and then the one day meeting. Mr. Maynard brought up the idea of a mentor program that had been discussed by the group.

I certify that these minutes are an accurate account of the November 15, 2011 meeting of the Idaho National Laboratory Site Environmental Management Citizens Advisory Board.



Willie Preacher, Chair  
Idaho National Laboratory Site Environmental Management Citizens Advisory Board  
WP/ph