INL Site Environmental Management

CITIZENS ADVISORY BOARD

Meeting Minutes

November 14, 2012

The Idaho National Laboratory (INL) Site Environmental Management (EM) Citizens Advisory Board (CAB) held its bi-monthly meeting on Wednesday, November 14, 2012, at the Hilton Garden in Idaho Falls, Idaho. An audio recording of the meeting was created and may be reviewed by calling CAB Support Staff at 208-557-7886.

Members Present
Willie Preacher, Chair
Bob Bodell
Herb Bohrer
Harrison Gerstlauer
Harry Griffith
Kristen Jensen
Betsy McBride
Teri Tyler

Members Not Present
Nicki Karst, Vice Chair
Sean Cannon
Mark Lupher
Bill Roberts
Tami Sherwood

Bob Pence, Federal Coordinator, DOE-ID

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)
Dennis Faulk, U.S. Environmental Protection Agency (EPA)
Susan Burke, State of Idaho, Department of Environmental Quality (DEQ)
Daryl Koch, State of Idaho, DEQ
Hoss Brown, Idaho Cleanup Project (ICP)

Others Present

Mark Hutchison, NRF
Curtis Roth, DOE-ID
Roger Turner
John Tanner, Coalition 21
Lane Allgood
Nolan Jensen, DOE-ID
Jim Malmo, DOE-ID
Doug Pruitt, DOE-ID
Brad Bugger, DOE-ID
Chris Henvit, Naval Reactors
Erik Simpson, ICP
Donald Rasch
Michell Walker, State of Idaho
Kerry Martin, State of Idaho
Beatrice Brailsford, Snake River Alliance
Bill Barker, AREVA
Bruce LaRue, DEQ
Frank Webber, ICP
Jean Holdren, ICP
Rick Dale, AMWTP-ITG
Amy Lientz, BEA
Brandt Meagher, ICP
Lori McNamara, Support Services
Bryant Kuechle, Support Services Facilitator
Peggy Hinman, Support Services

Opening Remarks

Willie Preacher welcomed the CAB and members of the public.

Jim Cooper welcomed the CAB and commented that budget issues continue to be a primary concern for the Environmental Management (EM) program.

Dennis Faulk welcomed the group. He commented that there was little news on the cleanup front. He feels that things will be quiet until budgets increase.

Susan Burke took the opportunity to welcome Kerry Martin, the new INL Oversight Program Manager for the Idaho Falls Regional Office.

Daryl Koch commented that there was not a lot of money available for cleanup. The state and the Tribes have received their funding to conduct their work, but the state's funds are reduced to reflect the reduced amount of work going on at the Site. Mr. Koch commented that there is a new plan to treat hazardous waste that is regulated under the Resource Conservation Recovery Act (RCRA) instead of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Mr. Koch noted that it may be of interest to the CAB to understand the differences between RCRA and CERCLA. He commented that one good thing for the Site is that significant progress had been made on cleanup before it slowed down, so the cleanup is still on schedule.

Hoss Brown commented that ICP was about a month and a half into its extension. He noted that ICP had received an award from the DOE Secretary for its completion of the Pit 9 excavation (Accelerated Retrieval Project [ARP] V) in time and under budget.

Settlement Agreement 101

Susan Burke, INL Oversight Coordinator, provided a presentation on the 1995 Settlement Agreement between DOE, the Navy, and the State of Idaho. The presentation is available on the INL Site EM CAB website: http://inlcab.energy.gov/.

Willie Preacher asked what the phrase 'road-ready' referred to in the Settlement Agreement. Burke explained that it is the high-level waste that is to be road-ready by 2035. The spent fuel is to be removed by 2035.

Dennis Faulk asked why the 2035 date was selected. Burke thought it was tied to availability of a repository and ability to get the waste into a form for shipment.

A question was raised about the Navy addendum. Burke explained how the needs of the Navy for management of fuel past 2035 were handled. The addendum provides that pre-2017 spent fuel be out of wet storage by 2023 and that after 2017, spent fuel is limited to 6 years in wet storage. After 2035, the Navy is limited to 9 metric tons heavy metal of spent fuel.

Betsy McBride asked if there was anything in the agreement that said shipments to Idaho could change if a repository were opened. Burke replied that the Navy still has a requirement to remove fuel by 2035, but it allows for some continued receipt past 2035. This continued receipt is not tied to a repository. Burke commented that the benefit is that there is a process in place to receive Navy shipments after 2035 if a repository is not available.

Harrison Gerstlauer asked if the settlement agreement would be concluded in 2035, and whether there would be any agreement governing activities except for the Navy addendum. Burke replied that there would be no agreement in effect if all commitments have been met by 2035. The goal is to end the agreement in 2035. Gerstlauer commented

that there may still be reactors and waste being generated. Burke commented that this is not under an agreement at this time.

Teri Tyler asked if there would be penalties if the Integrated Waste Treatment Unit (IWTU) does not start up. Burke replied that there are no monetary penalties under the Settlement Agreement for not meeting IWTU. Faulk clarified that fines could be imposed through the RCRA permit. Burke could not respond whether the RCRA group had plans to pursue fines through the permit.

Willie Preacher asked why the Tribes were not involved in the Settlement Agreement. Burke did not know the answer to this question.

Koch asked for an explanation of the separate court-approved agreement to implement one aspect of the 1995 Settlement Agreement. Burke explained there was a dispute over interpretation of how much transuranic waste needed to be removed under the agreement. After litigation, an agreement was reached to specify a minimum amount of acreage from which waste is to be removed. The court determined that the timeline for 2018 stands to the extent it can, but that any CERCLA waste should be handled under the CERCLA remediation schedule that is set for cleanup. The two sets of requirements for removal of waste now mesh together.

McBride asked about the significance of this change. Burke replied that it may be a matter of timing. The waste still needs to leave the state, but if it is not completed by 2018, it will be governed under CERCLA. The requirement for final capping is under CERCLA.

Faulk commented that the Settlement Agreement was a very powerful tool for the State of Idaho to move cleanup forward. He commented that there is a nuance in the 'all means all' issue. The Court determined that Idaho's transuranic waste does need to be removed even though waste prior to 1970 would not fall under the definition of transuranic waste until it is excavated. This makes the Idaho situation different from other sites, especially sites in the Eastern U.S., where the pre-1970 waste may not be excavated.

Progress to Cleanup

Jim Cooper provided a presentation on the status of the ICP status. The presentation is available on the INL Site EM CAB website: http://inlcab.energy.gov/.

McBride asked about the safety statistics. She asked if the first aid incidents had involved radiological exposures. Cooper explained that there had not been any radiological exposures; the reported accidents were just first aid. Bohrer asked about the production recovery plan for the Advanced Mixed Waste Treatment Project (AMWTP) and whether it was driving performance. Cooper explained that DOE feels that the plan is realistic but challenging. DOE is ahead of schedule on implementing the changes it needs to accomplish to streamline the waste acceptance process at WIPP.

Bohrer asked if the State of New Mexico and the DOE Carlsbad office were on board with what was being accomplished. Cooper replied that there had been meetings in Idaho with the DEQ, New Mexico Environment Department, and Carlsbad that led to many actions that are now being pursued. McBride asked about the type of waste disposed in ICDF. Cooper explained that it was waste generated from decontamination and decommissioning (D&D) operations. There is a limit of 500,000 cubic yards that can go into ICDF.

McBride asked whether INL would have the same fiscal issues if sequestration does not happen. Cooper replied that if sequestration happens, he does not know where he would take the money from. It would be a reduction of about $49M. Under the continuing resolution, he is operating at a lower funding level until funding is resolved. There are also issues with addressing priority matters, and this means other projects may not be funded. McBride

asked if the court had an interest in the funding issues related to the cleanup. She asked if DOE might move money from other sites to satisfy the Idaho judge. Cooper replied that across the complex there are competing priorities and needs, such as protecting the Columbia River at the Hanford Site. Cooper explained that DOE Headquarters is trying to work with Idaho to minimize the funding impacts.

Beatrice Brailsford, Snake River Alliance, asked about projects that are shut down and whether they may restart. Cooper replied that they were trying to restart EBR-II and the Subsurface Disposal Area (SDA). She commented she thought that the contractor was to bear additional costs of IWTU. Cooper replied that construction is completed and the project is in the operational readiness review phase. So the funding has shifted to operational funding instead of construction funding. Cooper commented that performance was subject to the performance fee system of the contract. He stated his goal is to get the project started up.

Brailsford asked if there were special nuclear materials at the INL that were not under EM. Cooper replied that he thought that DOE's Office of Nuclear Energy had some special nuclear materials. In reply to a question, Cooper clarified that the event that affected safety performance was the event in June.

Recent Public Involvement

Jim Cooper provided a presentation on recent and upcoming public involvement activities. The presentation is available on the INL Site EM CAB website: http://inlcab.energy.gov/.

McBride commented that an INL Executive had come to Boise to speak to the City Club about the digester project. The room of 250 – 300 people was very enthusiastic about the project. There is interest from her side of the state in what is going on at the INL. Cooper agreed, and commented that he and other DOE officials were touring Twin Falls and Boise and providing input to local newspapers about cleanup successes. He thanked McBride for her input.

Subsurface Disposal Area Update: Accelerated Retrieval Project VII, VIII, and Shutdown

Jim Malmo provided a presentation on the status of Waste Area Group (WAG) 7. The presentation is available on the INL Site EM CAB website: http://inlcab.energy.gov/.

McBride asked what happened to the ARP structures after they were torn down. She also noted that when a large item was discovered during excavation it was set aside. She asked what happened to those items. Malmo replied that most often the large items were not transuranic waste that did not have to be removed, so they would be returned to the trench and buried. They are contaminated but not part of the 'all means all' waste that is to be excavated.

Bohrer asked how long organic contamination in the vadose zone (OCVZ) was planned to operate. Malmo did not know immediately and committed to provide the information.

Gerstlauer asked what was affecting the pace of the excavation at ARP VIII. Malmo replied that the pace is tied to available funding and also the need to complete the sludge work in ARP V. He commented that the most efficient approach would be to have a crew working in ARP VIII and also a crew in ARP IX at the same time.

Brailsford asked about the fire hydrant in front of ARP VIII. Malmo replied that the fire line had been extended so there would be fire suppression for ARP VIII.

Brailsford asked if any of the ARP facilities had presented the more difficult waste streams. Malmo commented that the ARPs later in the project involved more digging to get to the targeted wastes. The earlier projects involved

less excavation, but more worker protection concerns. Cooper recounted that early in the project, pyrophoric drums were encountered that started on fire upon exposure to the air. Now, DOE is getting into the older wastes, and so unexpected items may be encountered.

Accelerated Retrieval Project V Sludge Process for AMWTP

Jim Malmo provided a presentation on the sludge repackaging project. The presentation is available on the INL Site EM CAB website: http://inlcab.energy.gov/.

McBride asked about the description of activities for the sludge processing. Malmo explained that all the sludge waste drums would be opened into a tray. If there are liquids inside the drum, they will be absorbed. Malmo explained how the liquids occur through separation of the sludge and condensation of moisture. Malmo provided photos to show how the work would be accomplished.

Gerstlauer asked what was used as an absorbent. Malmo replied that the material is similar to cat litter. McBride noted that when a drum is opened, there are items that cannot go to the Waste Isolation Pilot Plant (WIPP). She asked where these items go. Malmo replied that depending upon the waste stream; they go to the Nevada National Security Site or Clive, Utah for low-level waste disposal. McBride noted that the cap is intended to make sure that moisture will not get into the pit, but how does one make sure the existing contamination does not migrate. Malmo explained that if there is no force driving contamination down, then it would not migrate. The cap is critical to making sure no moisture flows through.

Gerstlauer asked if this was the first time RCRA and CERCLA had come together. Malmo indicated that it was not the first time, but it was a first for the SDA.

Brailsford asked for clarification of the difference between RCRA and CERCLA waste. Malmo indicated that the waste streams were very similar; it was a question of when the waste was disposed. Koch commented that it would be considered CERCLA waste if there had been a release from the buried waste but not from the stored waste, and that is why the buried waste was under CERCLA.

Brailsford asked about how exhumation was affected by the ‘all means all’ decision. Malmo explained that waste excavated from ARPs will have to be exhumed and removed from the state within one year after 2017. Faulk explained that the CERCLA schedule is also enforceable and addresses additional cleanup items for the SDA. The Settlement Agreement is limited to excavation of the buried waste. In response to a question, Malmo explained that the Navy was still shipping remote-handled low-level waste to the SDA for disposal.

Preacher asked what year the final cap would be completed. Malmo replied that current plans were for 2020 or 2022 for capping. Preacher commented he felt a good job was being done and he commended DOE for its work. Burke clarified that the Settlement Agreement requires removal of transuranic waste, there were no amounts. The parties got into a lawsuit over how much transuranic waste there was. The agreement addresses removal of transuranic waste from the INL Site no matter where it is located on the Site.

Gerstlauer asked about ARP VIII and the types of waste. Malmo replied that it was sludges and a mixture of other waste types. Malmo agreed that some retrieval work had been conducted in the 1970s.

Bohrer asked if it was correct to refer to the stored transuranic waste as the waste that is at AMWTP and the targeted waste is located in the ARP retrieval zones. In other words, when AMWTP is completed and the ARPs are finished, is the Settlement Agreement commitment met? The regulators commented that this is the case, plus in addition the remote-handled transuranic waste would be included. Faulk clarified that there is waste with

transuranic elements that will remain in the SDA following completion of the ARPs. The parties agreed to a set amount of excavation because at some point the returns on excavation become diminished.

Burke commented that the state had pushed for retrieval of certain types of transuranic waste in order to balance worker safety and cost. She feels the cover will provide final protection over the waste that is left in the ground. Faulk commented that he does not refer to the material remaining in the SDA as transuranic waste, only transuranically contaminated waste. If it were transuranic, it would have to be dug up.

McBride asked that if a way has been found of showing that the agreement has been met. Burke replied that the question was settled in order to resolve the dispute once and for all. She also commented that everyone is working hard to make sure cleanup and settlement agreements mesh. For these reasons, the court allowed some leeway from the 2018 date for the buried waste. McBride asked why no liner was planned. Faulk replied that the organics are continuing to be removed and hot spots such as high concentrations of technicium-99 are being solidified. Burke noted that in the ideal, the SDA would have been lined. To balance this issue, the State is planning for a cap that will be as effective as possible.

Brailsford noted that she has heard that Los Alamos shipments may be taking precedence over INL. Malmo stated that it is important for INL to maintain a backlog of waste at AMWTP so that they are always ready to ship waste. This puts INL in a good position for shipment. Cooper emphasized the importance of continuing to get waste out of the ground and ready to go to WIPP. Carlsbad makes the shipping decisions but they are done in coordination with all the sites to make sure the sites are keeping their commitments with their states.

Malmo provided a handout showing the baseline planning and anticipated progress for AMWTP if improvements can be implemented. He showed the progress that had been made since the last CAB meeting in September. The handout is available on the INL Site EM CAB website: http://inlcab.energy.gov/.

Integrated Waste Treatment Unit Investigation Report and Corrective Actions

Curtis Roth provided a presentation on IWTU. The presentation is available on the INL Site EM CAB website: http://inlcab.energy.gov/.

Preacher asked about the mechanism that allowed the filters to lift. Roth explained that the increased fan speed and plugging led to lifting of the filters. Roth agreed that changes in pressure were noted during the monitoring. However, many alarms are coming through the system and it has been important to understand the alarms and what they relate to in terms of operations.

Preacher asked about the blow back system and whether it was sufficient to make sure it would clear the material from the filter. Roth replied that the system was tested and it was found to be adequate as it was designed. Preacher asked about the pressure relief valve. Roth explained that the pressure relief valve discharged to the HEPA filter system. Preacher asked how radiation levels were checked in the process. Roth explained that monitoring would be conducted all along the process.

Gerstlauer asked if the blow back pressure was hydrogen fed, and Roth confirmed. Gerstlauer asked if the blow back line had been tried before the operational issue occurred. Roth noted that the monitoring of the blow back line had indicated an issue and that the operators were trying to remove the material when the incident occurred.

Preacher asked if there were technical standards or specifications for the process. Roth replied that the procedures guide the actions of the operators.

Bohrer asked about the alarms that were going off and noted that this was a lesson learned the hard way at Three Mile Island. He felt this is a big problem associated with startup. Everyone knew about conduct of operations and

alarms, and to have these issues is a surprise. The other question he has is with respect to the path forward. Are lessons learned being captured for other facilities such as Hanford's tank treatment? He feels that the issue of the lifting of the filter mechanism should have been noted during the design review. Why would a filter be designed that would lift?

Roth clarified that the investigation teams determined the operators did what they were trained to do. The problem is on whether the operators were trained to watch for the correct parameters. The operators were not provided correct information to understand the key parameters, precursor events, and other key points to watch for. Roth commented that the failure to monitor the system for the charcoal input was an issue.

Cooper commented that one difference from the testing was use of oxygen in the system. The question is whether this small modification could have affected the startup.

Preacher asked if calcine operators were picked up. Preacher indicated that these operators are very familiar with this type of operation.

Gerstlauer asked about the date planned for the startup activity. Roth replied that timing is dependent on the readiness assessment but that plans were to start heating up the plant in April 2013. He emphasized that this is a first-of-a-kind facility.

Roger Turner asked if the surrogate testing would look at just radionuclides or all air pollutants. Roth replied that all pollutants would be included in the testing. Turner asked for details on the pressure relief bundles and Roth replied that all pressure release will go to the HEPA filters. Roth believed that due to the number of banks of HEPA filters, there was sufficient capacity to handle a surge type event. Turner asked if the system was equipped to handle a series of smaller events. Roth replied this would be a concern if that happened. The whole process line will be monitored to watch for the capture of radioactive material.

Brailsford asked if addition of oxygen was the only change to the facility. Roth replied that 16 modifications were planned in total. Some of the modifications were not associated with the event. Roth described the design modifications planned. Other changes to the computer systems, documents, and training are planned. Brailsford commented that she does not understand why no more oxygen would be needed than planned. She asked if it was expected to have a lot of particulate in the system once it is operating. Roth replied that he did not expect particulate to be in the system once it reaches operating temperature and changes over from charcoal to coal. The waste will add material to the bed, so less coal will be needed. Roth clarified that the oxygen is in the system to get it heated up. Oxygen is not desired in the system because it leads to hydrogen buildup. The oxygen in the system will come from the steam but will be just enough to keep the process going.

Brailsford asked if there is another problem after radioactive material has been introduced, would the entire system be contaminated. She also asked about the permit modifications planned. Roth explained that buildup of radioactive material will be monitored. If it is picked up on the filters, the filters will be changed as necessary. Brailsford asked if the temporary authorizations would go out for public comment. Koch replied that he would see what he could find out about plans for public comment.

Public Comment

No public comment was offered at this time.

CAB Work Session

The CAB reviewed the draft recommendations developed at the EM SSAB Chairs Meeting in October. The first recommendation was approved.

The second recommendation was not approved. Questions were raised on the second recommendation about the issue of separating commercial and defense high-level waste and whether this was something that should be supported. The CAB felt it did not have enough information to agree that the recommendation is a good idea. The group felt it could support a recommendation that this should be evaluated but not that it should be done. As a taxpayer does not make sense to create two repositories – one for commercial and one for defense waste.

The third recommendation was not approved. The CAB felt technology development is a good idea but that each site needs to decide what technologies might be the most effective for their site. Also, funding for cleanup is basically at the compliance level. This is where the focus should be instead of technology development.

The fourth recommendation was discussed and the CAB decided that additional information was desired before the recommendation could be approved or disapproved.

The CAB discussed the draft recommendation that had been prepared for the EM SSAB Chairs meeting. The group felt that the issue was still important for Idaho. Jim Cooper commented that DOE was looking at changes to the small business contracting goals. The group wondered if they were creating a timing problem by trying to go back to the EM SSAB chairs. The group decided to make modifications to the letter to make it Idaho specific and to update the information. The CAB will send out its own recommendation and will provide copies to the other SSABs. Then the CAB will see if other SSABs may also be interested. The CAB may suggest spreading out the small business goals across the DOE complex instead of applying to a specific site.

The group was provided the update to the Site Treatment Plan, which is open for public comment through November 23.

The group had a preliminary discussion on public involvement. McBride recommended formation of a public involvement committee. Bohrer suggested that the subcommittee should develop a charter that describes what the CAB's role is with regard to public involvement. Preacher commented that public involvement has been a longstanding issue. The CAB has not met at night, and there have been comments about this. He also sees that members of the public are confused over what is in the media as compared to the EM issues which are more limited in scope. Preacher commented that it should be a continuing effort for CAB members to provide feedback to the CAB on what they are hearing from the community. McBride agreed to chair a committee and to begin work on a charter.

I certify that these minutes are an accurate account of the November 14, 2012 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