



INL Site Environmental Management

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

Meeting Minutes

April 7, 2009

The Idaho National Laboratory (INL) Site Environmental Management (EM) Citizens Advisory Board (CAB) held its bi-monthly meeting on Tuesday, April 7, 2009, at the Red Lion Hotel, Twin Falls, Idaho. An audio recording of the meeting was created and may be reviewed by phoning Support Services at 208-419-4158.

Members Present

R. D. Maynard, Chair
Richard Buxton
Doc DeTonancour
Harrison Gerstlauer
Seth Beal
Fred Sica

Damond Watkins
Willie Preacher
Tami Sherwood
Bruce Wendle
Robert Rodriguez

Members Absent

John Bolliger (excused)
Nicki Karst (excused)

Deputy Designated Federal Officer, Federal Coordinator, and Liaisons Present

Rick Provencher, 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
Susan Burke, State of Idaho Department of Environmental Quality (DEQ)
Daryl Koch, DEQ
Brent Rankin, CH2M-WG, Idaho LLC (CWI)

Others Present

Lisa Aldrich, Project Manager
Ceri Chapple, Support Services
Lori Isenberg, Support Services Facilitator
Mark Arenaz, DOE-ID
Dave Sanderlin, Naval Reactors Facility (NRF)
Kathy Falconer, Areva
Christina Cutler, Tribal-DOE
Joseph Campbell, ICP
Beatrice Brailsford, Snake River Alliance
Mark Hutchison, NRF

Ed Gulbransen, Public
Jim Van Vliet, Public
George Anthony, Public
Chris Ott, DOE-Idaho Operations Office
Dennis Miotla, DOE-Idaho Operations Office
Jeremy Sasserollins, Public
Jerry Wells, DOE-Idaho Operations Office
Warren Bergholz, Public
Bruce LaRue, DEQ

Opening Remarks

Chairman R. D. Maynard welcomed everyone to the meeting. Mr. Provencher welcomed everyone, thanked the CAB for their efforts, and provided brief updates. Additionally, the liaisons provided brief updates.

Recent Public Involvement

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

Progress to Cleanup

Mr. Provencher provided a status of the cleanup progress with active discussion among the CAB. The status included safety performance (CWI and Advanced Mixed Waste Treatment Project [AMWTP]), transuranic (TRU) waste disposition, low-level and mixed low-level waste, and the AMWTP. Mr. Provencher discussed the Waste Area Group (WAG) 7 and the Radioactive Waste Management Complex (RWMC). In regard to WAG 7, Mr. Provencher outlined the Subsurface Disposal Area (SDA) Record of Decision and the Accelerated Retrieval Project interim actions. Mr. Provencher discussed the status of the Idaho Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Disposal Facility and CERCLA Remediation Projects: WAG 1 – Test Area North (TAN), WAG 2 – Idaho Nuclear Technology and Engineering Center (INTEC), and WAG 10 – Site wide Miscellaneous Sites/Snake River Plain Aquifer. He continued, discussing the status and objectives of Decontamination and Decommissioning (D&D), TAN (completed), Advanced Test Reactor (ATR) Complex, INTEC, and the RWMC. Mr. Provencher outlined the Nuclear Materials Completion Project objectives, the Integrated Waste Treatment Unit (IWTU) (Sodium-Bearing Waste) Project objectives, the Integrated Waste Treatment Unit (IWTU), INTEC Liquid Waste Facility (Tank Farm) Closure Project, the Spent Nuclear Fuel Disposition Project objectives, and the Calcine Disposition Project. Mr. Provencher summarized to the CAB key activities and completion dates on the aforementioned projects.

Mr. Provencher notified the CAB of upcoming items of potential interest: the Fiscal Year 2009 Budget, the American Recovery and Reinvestment Act (stimulus Package,) and the transfer of CPP-651.

Discussion

R. D. Maynard asked what the future may be for calcine waste. Mr. Provencher responded by explaining that there are obligations within the settlement agreement and that the blue ribbon panel, appointed by the Environmental Management Secretary, will assess research options, including vitrification and repositories.

Harrison Gerstlauer asked what the processes and storage plans are for the material Idaho will receive from Savannah River. Mr. Provencher explained that the plan was to package the material and ship it to Yucca Mountain. The INL would create packaging capability, either by using an existing facility or by building a new facility. Mr. Provencher continued by explaining that the critical issue right now is the calcine; it currently is being moved from wet storage to dry storage, but the INL needs to determine long-term storage solutions. DOE has an obligation to develop a draft Record of Decision by the end of the year to demonstrate solutions, for example, direct-disposal, vitrification, steam-forming and isostatic pressuring. There still remains the issue of long-term storage once the material has been treated and packaged. Mr. Gerstlauer asked if these projects mean more money and work for Idaho. Mr. Provencher responded, saying that there is an effort by CWI to define a work-scope that will occur after 2012 and to develop a detailed baseline.

Seth Beal asked about the IWTU facility, post 2012, if there are any plans to accept material from other sites to be processed through that facility. Mr. Provencher answered that Environmental Management is looking into the possibility of other utilities for IWTU, before it is dismantled.

Willie Preacher asked what the disposition plans are for the fuel elements discovered in 603. Mr. Provencher responded by explaining that they have performed a nuclear safety evaluation to determine how many fuel elements in an array could be stored in 603, and still maintain their safety configuration. An updated safety analysis has been established to reflect the evaluation and appropriate controls have been updated. The plan is to store the fuel elements in 603 for the time being. The potential exists to find more material, and the plan is to address all of the found material later on. The only issue with storing the material in 603 is that affiliated security organization(s) may evaluate the situation and expect more elaborate testing and accountability checks. Willie Preacher asked if calcine could be shipped to the Waste Isolation Pilot Plant (WIPP) after treatment. Mr. Provencher responded that currently they haven't been encouraged to engage with the regulators about this

possibility because of the pending license for Yucca Mountain. He continued by explaining if the calcine waste was treated and then placed it into a canister, he believes that it would pass regulatory approvals for WIPP.

Fred Sica asked what the formal process would be to move on from Yucca Mountain. Mr. Provencher explained that the blue ribbon panel, put in place by the Secretary of Environmental Management, will explore other options and make a recommendation by the end of the year as to a path forward. The license application for Yucca Mountain is still being processed, but if by the end of the year Yucca becomes a non-option, then other options will be approached.

Tami Sherwood asked if reprocessing is a possibility. Mr. Provencher explained that reprocessing calcine is tied to the blue ribbon panel, which will construct a broad evaluation. Willie Preacher asked if they anticipate anyone sending spent nuclear fuel to Idaho. Mr. Provencher responded that he doesn't foresee that happening, but it could be a possibility.

Susan Burke asked if the backlog of waste drums had been reduced. Mr. Provencher explained that they are limited by how many shipments they are permitted to send to Carlsbad. He explained that the backlog is good for payload efficiency and that there are currently 1,000 cubic meters of backlogged waste.

Beatrice Brailsford, Snake River Alliance, asked about the item mentioned in the stimulus package to transfer 651 Experiment Breeder Reactor (EBR) II 0.13 metric tons of fuel from Idaho Nuclear Technology Engineering Center (INTEC) to the Material Fuels Complex (MFC). Mr. Provencher explained that it is a desirable path to take because INTEC didn't have the Category I safety and security necessary to store that fuel. The material has sodium in it and MFC has the capability to process and neutralize the sodium. They will treat the material at MFC and then store it appropriately. Ms. Brailsford asked if the statement about how moving the fuel would save \$40 million in constructing a Category I facility was incorrect. Mr. Provencher responded that the statement is correct. By moving the fuel to MFC they can avoid some long-term security upgrade requirements at INTEC. Ms. Brailsford asked why they couldn't just use 651. Mr. Provencher explained that the facility is not big enough for all of the EBR II fuel; there is a lot more than the 0.13 metric tons mentioned in the Stimulus package. DOE is just using a small amount of the stimulus money to get started on the work and that there will be much more to follow. Ms. Brailsford asked if the fuel is "blanket" or "driver" fuel. Mr. Brent Rankin responded that it is "driver" fuel.

Decisions/Disposition

The report satisfied the informational need for the CAB.

The American Recovery & Reinvestment Act (Idaho Stimulus Project)

Mr. Richard Provencher began by explaining the basis and delivery obligations of the American Recovery and Reinvestment Act. He summarized the Idaho Cleanup Project's (ICPs) core mission and approach, which is to create new jobs and maintain existing jobs with long-lasting economic benefits. They will develop work scope, cost estimates, and schedules that are fully defined and supported (transparent, reportable, and auditable). Performance will be reported weekly and monthly to ensure results are meaningful and measureable. Mr. Provencher lined out Idaho's approach and scope for the projects that will benefit from the stimulus. This will create/retain approximately 600 direct jobs.

Discussion

Willie Preacher (CAB member) asked that, within the guidelines of the stimulus, will ICP have the ability to recall previous employees, whom may have left ICP during the involuntary separation. Rick responded by answering yes, former employees will have an opportunity to reapply; however, they may be subject to pro-rate if they had

received any bonuses or early retirement packages. Mr. Provencher continued, explaining that ICP will be holding job fairs and that the stimulus money will allow 550 jobs to be preserved and created at CWI. A detailed contract work-scope is created that then goes to the contractors, which gives the contractors a direction in which to pursue hiring. The contractors will then develop a detailed baseline and estimate the number of jobs and particular crafts needed. They will give this information to DOE for further review and evaluation. Once this has been accomplished, it allows DOE and CWI to brief the CAB on work going on at the INL. DOE and CWI must outline to recovery.gov a detailed report to the public on how the stimulus money is being spent.

Fred Sica (CAB member) asked how Idaho compared to other sites in regards to stimulus money. Rick responded that Idaho fared quite well. It ranked third in the amount of stimulus dollars. Mr. Provencher expounded by adding that the \$468 million will be spent wisely. It will preserve and create jobs, and that the work will get done. If the work can get done and we can show that the stimulus money was spent wisely then there may be a chance to receive more money in the future.

Fred Sica asked if CWI is coming to the end of their contract period. Rick explained that the contract is good through 2012. CWI is in the process of developing a base scope, cost estimates, and drafting contract documents for an RFP. This will be an open bid.

Willie Preacher asked what about NRF? Mr. Provencher said that they (CWI) are currently helping NRF by trying to bring some materials (transuranic waste) over to INTEC this summer. He continued by explaining that the stimulus money will be used for work that has already been performed successfully and has established regulatory processes.

Harrison Gerstlauer (CAB member) asked if there is a possibility that WIPP will be using some of their stimulus money to help prepare them for more shipments of waste to be accepted at their repository. Rick explained that they will receive some stimulus money and that their main concern is RH-TRU. They (WIPP) do a lot of behind-the-scenes work in regards to waste streams approval and certifications of the waste. In fact, there is a mobile group deployed here in Idaho. Mr. Provencher explained that WIPP will continue at their 15-18 level for CH-TRU. The INL can support that rate and a larger capacity acceptance from WIPP would be welcome. However, these are controlled shipments and there are restrictions on the number of buried waste containers that can be included in one shipment. DOE is in the process of trying to increase this number, so that we may fully utilize the capacity of WIPP. There is work being performed at WIPP in regards to RH-TRU, with the goal of trying to get Idaho's material down there sooner.

Harrison asked what our plan "B" is if they cannot keep up with our waste remediation. Rick said that they are building another storage facility, and eventually we will surpass WIPP's ability to accept our waste and we will have to create more storage here in Idaho.

Dennis Faulk (EPA) made a comment that the EPA appreciates Idaho's work in the recent flurry of government activity aligned so closely with EPA's priorities and that they didn't need discussion from EPA's wish list. He is looking forward to the work being performed and hopes that the money is spent wisely.

Jeremy Sasserollins, member of the public, asked how it is determined that a site is complete. Rick responded that there are certain pre-established performance objectives in CERCLA documentation that they are expected to achieve, demonstrating that an area/site has been cleaned up enough. Mr. Sasserollins asked if in the budget/stimulus there was money allocated to neutralize the waste as opposed to the route and store practice. Mr. Provencher explained that the waste shipped to WIPP must meet waste acceptance criteria and that the waste shipped to the Nevada Test Site may require some treatment. Some mixed low-level waste may be sent to Permafex in Washington State, treated, and then sent to Nevada. As far as waste forms and technology are concerned, there are some that have established waste treatment and some that do not, indicating a possible need for research. Fred Sica responded to the question by explaining that there are over 30 disciplines devoted to the issues of waste. The

goal is to process the waste to less hazardous material if possible and minimize the hazard. The subsurface science protocol is specific and targeted to grade down to 45 feet. Darryl Koch (EPA) responded by clarifying to Mr. Sassercollins that the point of the stimulus footprint reduction is to stabilize the waste as much as possible and send it the Idaho CERCLA disposal Facility (ICDF). Essentially, we are moving the waste from one place to another, reducing the risk at the place it came from and putting it into a landfill that is lined and will be monitored indefinitely.

Beatrice Brailsford (Snake River Alliance) asked if the Remote Handled Transuranic Waste (RH-TRU) project under the stimulus is the same project in scope/magnitude that is covered in the Environmental Assessment. Rick responded that it is only a piece of it, explaining that some RH-TRU has sodium, which needs treatment. They are hoping that with the stimulus money they can put into fabrication and construction a system that would be used to treat the remaining sodium-containing RH-TRU and mixed low-level waste. A majority of this work will be performed post 2012. Beatrice asked about the EBR-II project, wondering if ICP intends D&D on all five of the structures in the next 3 years under the stimulus plan. Rick responded yes, all five structures are intended for D&D in the next 3 years. The RCRA and CERCLA processes and D&D, as well as the shipment of waste from INTEC to MFC for treatment are all intended to be completed in the next 3 years. Beatrice then asked if there is or will be something posted with specific breakdowns by project of the rationale for each project, how new hires and current jobs are determined, and the number jobs determined specific to each project. Rick said that he would check to see if that information will be posted. He explained that they didn't go by specific facility area to determine jobs. That will be determined when they do the baseline, then they will have a better idea of jobs per project. They did a cost estimate of each area, reviewed the regulatory processes that need to be accomplished, and identified the work as a viable scope in which to pursue. Additionally, they reviewed which facilities pose the greatest inherent risk and to go after those first. Mr. Provencher explained that they will have to provide a detailed report to the public at recovery.gov explaining exactly how the stimulus dollars will be spent. Once they get their baseline in place, which should be in the next 2 months, they will follow the guidelines provided to them by recovery.org.

Decisions/Disposition

The CAB formed a Stimulus sub-committee.

Advanced Mixed Waste Treatment Project

Mr. Jerry Wells began by explaining the status of off-site waste at the Advanced Mixed Waste Treatment Plant (AMWTP). Mr. Wells continued by explaining the approval process involved in receiving off-site waste at AMWTP. Mr. Wells described the waste containers and how the requirements for shipment to Idaho. He outlined the waste path for off-site transuranic waste, from characterization to treatment. Mr. Wells briefed the CAB on the Nevada Test Site (NTS) waste. He described the waste containers, explaining their contents, the process of characterization and shipment. Mr. Wells outlined the plans for future shipments from NTS to AMWTP. Mr. Wells concluded by briefing the CAB on AMWTP's path forward.

Discussion

Fred Sica asked how big an average shipment is. Mr. Wells responded that they can hold up to three TRU-PACS; the most the shipment would consist of would be forty-two 55-gallon drums or six standard waste boxes.

Seth Beal asked what is the potential for Hanford waste to be shipped to Idaho. Mr. Wells explained that Hanford was one of the sites included in the NEPA Analysis and Record of Decision released last year; under that decision there is still a possibility that waste from Hanford could come to Idaho. DOE has put those plans on hold indefinitely, but it is still a possibility in the out years. If any waste is brought into Idaho, it would be coordinated with the state of Idaho.

Harrison Gerstlauer asked if there have been any surprises regarding waste coming in that wasn't what it said it was. Mr. Wells explained they haven't had any surprises yet. There is preliminary characterization performed before it is shipped, but the certified characterization is performed at the INL. If the waste doesn't meet waste acceptance criteria, then it is sent back to the shipping site; however, that occurrence is not considered a mischaracterization.

Decisions/Disposition

The report satisfied the informational need for the CAB.

Waste Area Group (OU 7-13/14) Buried Waste Remediation Status Update

Mark Arenaz began by giving a brief background and history of the Subsurface Disposal Area (SDA) and buried waste. He continued by briefing the CAB on the progress to date (03/15/2009) on targeted waste retrievals. Mr. Arenaz explained the shipping progress and status of the Contact Handled Transuranic Waste (CH-TRU) buried targeted waste. Mr. Arenaz outlined the path forward for targeted waste retrievals, explaining that they will continue waste retrievals in Accelerated Retrieval Project (ARP) II and ARP III and implement plans for ARP IV. Mr. Arenaz also explained the tentative schedule for ARP V. He provided a map of the 5.69-acre retrieval progress, additionally providing photos of the waste retrieval process, the generating of new waste packages for off-site shipment, and an aerial view of the targeted waste retrieval areas. Mr. Arenaz outlined the highlights of the Buried Waste Agreement to implement. He continued by explaining the in-situ grouting remedy. Mr. Arenaz concluded by briefing the CAB on the CERCLA document status.

Discussion

Tami Sherwood asked what was pictured in the lower right corner of page 14? Mr. Arenaz explained that it was the Low-Level Waste Pit. It was closed in September 2008 and is the process of being backfilled.

Daryl Koch, DEQ, commented that about 37% of the 7,000+ cubic meters of waste has been packaged, even though they have only dug-up about 15% of the acreage. Many of the early pits have been "sludge", degraded drums, which makes the retrieval more difficult. Mr. Koch commented that he hopes the numbers will come into alignment as the remediation continues. He continued by explaining that DOE is still obligated to dig up the profiled amount and remediate the targeted waste no matter what condition it is found in. The stimulus money may help to accelerate the project but the targeted waste, depending on the level of degradation, may need more funding in the future. Mark Arenaz responded by explaining that there is another factor involved. The first excavations, identified with the contractor were to be the areas with higher concentrations which are ARP-I and ARP-II. As they go into some of the other pit areas they don't expect to see the high concentrations like they are currently seeing.

Harrison Gerstlauer asked if they are using the same methods that they used in Pit-9. Mr. Arenaz responded that the Glove-box Excavator Method (GEM) Project process used in Pit-9 was used as a proof of principal, whereby they were able to demonstrate a process. They are not using that exact process by any means. They learned from the GEM process that they could identify particular waste, retrieve it, process it, package it, and ship it to WIPP.

Fred Sica asked if we shouldn't be doing more in the way of research to find-out if there are any further issues with contamination, by leaving some of the waste, burying it and capping it. Mr. Arenaz explained that they are leaving a lot waste in the Subsurface Disposal Area. However, the risk assessment was to define which constituents caused the problem that could contaminate the aquifer. The risk analysis determined that the main driver is volatile organics, specifically carbon tetrachloride that is found in the "sludge" products. The radionuclides/transuranics

are not highly mobile. The installation of the cap, which inhibits the flow of moisture through the Subsurface Disposal Area, mitigates the problem of the transport of any radionuclides going into the aquifer.

Bruce Wendle asked if there was any possibility that having put a cap over it in the beginning would have been a better answer to the waste dilemma. Rick Provencher responded that they made an evaluation and determined that a combination of activities would be the best solution. Mr. Arenaz followed by explaining that DOE chose a Defense of Depth solution in terms of retrieving the source terms of the transuranics and volatile organics, grouting to inhibit the transport of radionuclides, and continuing to pump out organic vapors, in addition to the cap, to ensure that they are meeting the best remediation goals for the EPA, the State of Idaho and its citizens. Mr. Wendle then asked why not grout and cap the 90 stainless steel cylinders? Mr. Provencher explained that Mr. Wendle was referring to the cylinders of RH-TRU in interim storage at MFC. He explained they are transuranic waste and the only legal option at this point to dispose transuranic waste is to ship it to WIPP.

Tami Sherwood asked where the low-level waste at the Low-Level Waste Pit is coming from. Mr. Provencher responded that they are no longer receiving low-level waste at the pit, but it is operational waste, which was generated by other on-site users, such as INTEC, MFC, the Navy, and Nuclear Energy. It is a site that everyone used, and the waste is not CERCLA.

Decisions/Disposition

The report satisfied the informational need for the CAB.

March Chairs Meeting Report

R.D. Maynard briefed the CAB on the highlights of the March Chairs meeting held in Augusta, GA. He described the tour of the Savannah River Site and some of the processes being implemented there. Mr. Maynard outlined the presentations of the meetings, highlighting the issue of the path forward for a national repository as a main issue. He concluded by making the point that although each site has varied issues there are many common goals among the SSABs.

Decisions/Disposition

The report satisfied the informational need for the CAB.

Public Comment

No public comment was provided.

Announcements and Other Board Business

As discussed, the May meeting date was changed. The next meeting will be held May 13, 2009, in Idaho Falls, Idaho at the Hilton Garden Inn.

A membership meeting will be held on May 12, in the evening.

An additional CAB meeting will be held September 10, in Idaho Falls at the Hilton Garden Inn.

CAB Work Session

The CAB discussed the chairs meeting that will be hosted by DOE-Idaho, September 21-24.

The CAB decided to cancel the INL site tour scheduled for May and incorporate their annual tour with the Chairs tour in September.

The CAB developed an agenda for topics of the May meeting:

2011 Budget

Integrated Waste Treatment Unit

Integrated approach to dispositioning off all RH-TRU.

The CAB discussed possible topics for the July meeting:

Remedial Design Work Plan, WAG 7

Interim Spent Fuel Storage Plan

Stimulus Baseline

Update on WAG-10 ROD.

The CAB created a stimulus sub-committee: Fred Sica, Bruce Wendle, Tami Sherwood, Seth Beal and Damond Watkins. The sub-committee will need to be prepared to give in-put for ultimate end-state and coordinate a formal meeting for a recommendation.

Action Items:

1. Support staff will schedule a Stimulus sub-committee call by the first of May, whereby Rick Provencher will provide a status report.
2. Support staff will coordinate and distribute travel information to CAB members attending the May meeting in Idaho Falls, Idaho.

Members provided written feedback forms to support services at the conclusion of the meeting.

Attachments (8) to these minutes are available on request from the INL Site EM CAB support office.

I certify that these minutes are an accurate account of the April 7, 2009, meeting of the Idaho National Laboratory Site Environmental Management Citizens Advisory Board.



R. D. Maynard, Co-Chair

May 10, 2009

Idaho National Laboratory Site Environmental Management Citizens Advisory Board
RDM/cc