



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

May 29, 2008

The Idaho National Laboratory (INL) Site Environmental Management (EM) Citizens Advisory Board (CAB) held its bi-monthly meeting on Thursday, May 29, 2008 at the AmeriTel Inn, Idaho Falls, Idaho. An audio recording of the meeting was made and may be reviewed by phoning Support Services at 208-419-4102.

Members Present

John Bolliger, Vice Chair
Richard Buxton, Co-Chair
Doc DeTonancour
Bill Flanery, Co-Chair
Nicki Karst
R.D. Maynard
Willie Preacher

Seth Beal
Robert Rodriguez
Tami Sherwood
Fred Sica
Damond Watkins
Doug Weir
Bruce Wendle

Members Absent

Christine Herres

Deputy Designated Federal Officer, Federal Coordinator, and Liaisons Present

Richard Provencher, Deputy Designated Federal Officer, Department of Energy Idaho Operations Office (DOE-ID)
Bob Pence, Federal Coordinator, DOE-ID
Nick Ceto, U.S. Environmental Protection Agency (EPA), Region 10
Susan Burke, State of Idaho
Daryl Koch, State of Idaho
Bill Johnson, Idaho Cleanup Project (ICP)

Others Present

Lisa Aldrich, Support Services
Lane Allgood, PST
Phil Breidenbach, ICP
C.L. Donahue, ICP
Ceri Chapple, Support Services
Mark Clough, Idaho DEQ
Jim Cooper, DOE-ID
Guy Girard, DOE
Bruce LaRue, DEQ INL Oversight
Keith Lockie, DOE
Chuck Ljungberg, DOE-ID

Kliss McNeel, ICP
Danielle Miller, DOE
Carol Nichols, Public
Natalie Packer, ICP
Robert Peel, URS Corp.
Ron Ramsey, DOE
David Sanderelin, NR-IBO
Mark Shaw, DOE-ID
Erik Simpson, ICP
John Tanner, Coalition 21
Mary Wilcox, DOE

Opening Remarks

Co-chairman Bill Flanery 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 the Idaho Cleanup Project (ICP) scope, safety performance for CWI and Advanced Mixed Waste Treatment Project (AMWTP), the transuranic waste disposition project, low-level and mixed low-level waste project, AMWTP accomplishments, Waste Area Group (WAG) 7 Project, Idaho CERCLA Disposal Facility (ICDF), other Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) remediation projects, D&D Test Area North (TAN), D&D Reactor Technology Complex, D&D Power Burst Facility (PBF), Radio Active Waste Management Complex (RWMC), D&D Idaho Nuclear Technology and Engineering Center (INTEC), Special Nuclear Materials Disposition Project, Integrated Waste Treatment Unit Project, INTEC Liquid Waste Facility closure project, Spent Nuclear Fuel Disposition Project, Idaho Spent Nuclear Fuel Dry Storage Project, and Calcine Disposition Project. Additionally, each topic detailed the project accomplishments and upcoming activities. The presentation concluded with key activities and completion dates for these projects.

Mr. Provencher briefed the CAB on FY 08 funding status and FY 09 budget rollout schedule.

Decisions/Disposition

Susan Burke asked what is the nature of the waste coming into Idaho and how will it be treated? Mr. Provencher responded by telling her that it will be handled in TRU-Pacts. Fred Sica asked what condition the containers coming in from foreign countries are in. Mr. Provencher responded saying that a U.S. team views and inspects them for structural integrity before they are loaded and sealed. Nicki Karst wanted to know how they are transported. Mr. Provencher said that they are transported by boat then by truck.

D&D Acceleration

Mark Shaw briefed the CAB on the progress of deconstruction and decommissioning (D&D) to date. Mr. Shaw reported that D&D is significantly ahead of schedule and under cost. He continued to report that the ICP contract workscope will be completed by 2010. Mr. Shaw explained that the current planning for D&D shows no activity from 2013 through 2021. He continued by saying that if additional “overtarget” funding is provided they will add D&D workscope funding as allowed. Mr. Shaw explained that there is no execution planning at this time. He went on to brief the CAB on the potential scope for 2010-2012 and beyond, and the potential INTEC D&D workscope.

Decisions/Disposition

Presentation satisfied the informational need for the CAB.

Sodium Bearing Waste Treatment Project

Guy Girard briefed the CAB on the IWTU project accomplishments since March, 2008. He continued by highlighting some of the project challenges, including cost growth, delay of project completion by one year, to minimize impact on other programs, and meeting the settlement agreement milestone to treat waste by December, 2012. Mr. Girard outlined the new IWTU project schedule. Presently the project is still in the equipment fabrication stage. By 2010 they predict that the project’s construction will be complete and by 2011 testing/commissioning will be complete and operations will begin by 2012, depending on the schedule contingency. Mr. Girard concluded his presentation with IWTU’s upcoming activities. They will submit the Baseline Change Proposal to headquarters for a one year stretch of CD-4 Begin Facility Hot Operations. They will continue structural concrete placements for the Shield Walls, the Off Gas Building and the Mechanical Building foundations. Finally, they will continue major vessel and other important fabrication activities.

Decisions/Disposition

Presentation satisfied the informational need for the CAB.

Calcine and NRC Licensing Update

Jan Hagers briefed the CAB on the state of the High Level Waste Program at the Idaho National Laboratory (INL). Mr. Hagers began his presentation by explaining the definitions of High Level Waste (HLW) and Spent Nuclear Fuel (SNF), and how each require disposal. He went on to say that the Nuclear Regulatory Commission (NRC) includes SNF within their definition of HLW. Mr. Hagers explained the process of how Calcine becomes the first cycle raffinate from reprocessing of SNF. He continued to explain that the HLW housed in dry storage at the INL is in the form of Calcine. There are 8-9M gallons of liquid HLW that were converted to 4400 cubic meters of granular solid (calcine) through a fluidized bed calcinations process. The calcine is then stored in 43 bins in 6 concrete-shielded binsets with one spare. Mr. Hagers explained that calcine is classified as hazardous waste under RCRA and is currently stored under 10-year RCRA Part B permit issued November, 2006. The Calcine Disposition Project (CDP) is established to meet the Settlement Agreement and the Site Treatment Plan requirements. Mr. Hagers provided photos of the Calcine Bin Set #6. He explained the technical challenges of layering the calcine. Mr. Hagers further explained the current disposal options for calcine, including, the retrieval, packaging and disposal without further treatment, treatment by isostatic pressing, treatment by steam reforming, and treatment by direct vitrification. He went on to outline the basis for considering the direct disposal option. The INL conducted preliminary long-term performance sensitivity analysis using Yucca Mountain Total System Performance Assessment (TSPA) model used in the final EIS. The INL also ran EPA's Industrial Waste Evaluation model using conservative site-specific data/assumptions for Yucca Mountain. The modeling suggests no significant environmental benefit associated with further treatment. Mr. Hagers explained that DOE could possibly petition the EPA for a conditional exemption of calcined HLW from the regulatory definition of hazardous waste based on disposal prohibitions bases on a no-migration demonstration. Upon further evaluation of the Hot Isostatic Press (HIP) option appears warranted. Mr. Hagers outlined the Technology Initiative. HIP Evaluation Funded by EM-20, the contract between Battelle Energy Alliance and the Australian National Science and Technology Organization, Inc. was signed 02/28/08, will provide data to be used in down-selection of treatment alternatives. This presents an opportunity to maximize return on the investment by diversifying DOE's technology platform and reducing technical risk by producing and evaluating wasteforms with surrogate (non-radioactive) materials. In addition, DOE-ID currently has an HIP unit installed in the High Flux Examination facility hot-cell at INL (MFC). Mr. Hagers briefed the CAB on the FERMI and EBR II sodium-bonded Spent Nuclear Fuel. He explained that although it is not HLW, the presence of metallic sodium (Na) may exhibit RCRA reactivity characteristics requiring treatment or EPA regulatory action. He went on to explain that Fermi blanket assemblies have low burn-up and cladding is intact. Furthermore, EBR-II Driver assemblies are fissured and require treatment. The treatment of FFTF is similar to EBR-II. Mr. Hagers explained that progression of the Tank Farm Closure. Continuing, he briefed the CAB on the regulatory challenges of Calcine Disposition and SBW Project Drivers. Mr. Hagers summed-up the INL Site HLW Program and provided slides on the Wet Spent Nuclear Fuel Storage, the Dry Spent Nuclear Fuel Storage, and the options for packaging/ storing SNF interim to geologic disposal. In conclusion, Mr. Hagers discussed the status of NRC licensed facilities related to the DOE-ID SNF program. Explaining that the manager of DOE-ID (Beth Sellers) is currently the NRC Licensee for the Fort St. Vrain (FSV) and Three Mile Island (TMI) dry storage facilities, the Idaho Spent Nuclear Fuel (ISF) ISFSI is currently licensed to Foster Wheeler Environmental Corporation (FWENC), the FSV and TMI ISFSI licenses expire in 2011 and 2019 respectively, and that the Yucca Mountain Geologic Repository NRC license application is scheduled to be submitted in June. The repository is estimated to be operational around 2017.

Decisions/Disposition

Bill Flanery asked what magnitude of earthquake is the storage buildings designed to. Hagers responded that they are designed to NRC requirements.

Savannah River/ INL Spent Fuel Transfer

Ron Ramsey, Manager of the INL/ EM SNF Program, briefed the CAB on Spent Nuclear Fuel Transfer Program. Mr. Ramsey began his presentation by summarizing the project's scope. The inventory of non-aluminum-clad SNF currently managed at the Savannah River Site (SRS) will be transferred to the INL and the inventory of aluminum-clad SNF currently managed at the INL will be transferred to the SRS. The time scope on the project is from 2009-2019. The INL will ship approximately 200-525 shipments to SRS and SRS will ship approximately 55-200 shipments to the INL. Mr. Ramsey continued by explaining the project results and benefits. Completion of the EU Disposition Project together with the INL/SRS SNF Transfer Project will result in: the elimination of the entire SNF inventory at SRS, the elimination of the aluminum-clad SNF inventory at the INL, the completion of the SRS SNF mission by closing all SNF-related facilities, and the elimination of the need for the SRS to build and operate a SNF packaging and dry storage facility. In addition, there will be a reduction in the total number of canisters (-900) generated, shipped, and dispositioned at the repository, a reduction of the overall number of EM shipments of SNF to the repository, and the recovery of a valuable national resource, the useful fissile materials employed for energy use. Mr. Ramsey concluded his presentation with an update on the project's status and showed slides of the Transfer Project Building (CPP-603), its schematic, the fuel array, and the SNF Transfer Project on the road.

Decisions/Disposition

Tammi Sherwood asked: could we send Calcine to SRS, have them do the vitrification? Mr. Provencher responded by saying that we need to determine if vitrification is necessary, need to determine the best course of action to deal with the waste, both in terms of safety and cost.

Public Comment

John Tanner discussed the use of AMWTP.

Chairs Meeting Briefing

Bill Flanery gave an overview of the Hanford tour, discussing the history of the site. Dick Buxton continued by discussing a book written on Hanford that was being passed around the meeting. He emphasizes the difficulty in the separation of plutonium at Hanford and that our SNF is a valuable asset that should not to be stored. The CAB then discussed Doug Weir's summary report on Hanford. There were three handouts given out: Nuclear Waste and Disposition Update (Christine Gelles), EM Budget, Site Activity Coordination (Mark Gilbertson)..

Announcements and Other Board Business

The next meeting will be held July, 15-16, 2008 at the AmeriTel Inn, Idaho Falls, ID. The following dates and locations are planned for 2008.

July 15-16, AmeriTel Inn, Idaho Falls
October 7-8, Hampton Inn, Coeur d' Alene

CAB Work Session

The CAB discussed logistics for the CAB meeting planned in October.

- July CAB Meeting:
 - WAG 10 proposed plan briefing
 - AMWTP Supercompactor Video
 - ARP-III EE/CA
 - WAG 7 Draft ROD
 - WAG OU 10-03 RD/RA.

The CAB discussed the chairs meeting planned for September 16-17 in Washington, D.C.

The CAB approved recommendation #138 (one board member abstained from voting).

The Chairs letters were approved unanimously.

Action Items:

1. DOE will provide FY-09 Work-plan to Bob Pence by July for the CAB subcommittee to evaluate and use as a basis at the retreat in October.
2. 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 May 29, 2008, meeting of the Idaho National Laboratory Site Environmental Management Citizens Advisory Board.



R. D Maynard, Chair

June 16, 2008

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