



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

September 29, 2010

The Idaho National Laboratory (INL) Site Environmental Management (EM) Citizens Advisory Board (CAB) held its bi-monthly meeting on Wednesday, September 29, 2010, at the Coeur d'Alene Resort, Coeur d'Alene, Idaho. An audio recording of the meeting was created and may be reviewed by phoning CAB Support Staff at 208-557-7886.

Members Present

R.D. Maynard, Chair
Willie Preacher, Vice Chair
Sean Cannon
Doc DeTonancour
Harrison Gerstlauer
Robert Rodriguez
Tami Sherwood
Teri Tyler
Bruce Wendle

Members Not Present

Seth Beal
Harry Griffith
Nicki Karst
April Mariska
Fred Sica
Damond Watkins

Deputy Designated Federal Officer, Federal Coordinator, and Liaisons Present

Jim Cooper, Deputy Designated Federal Officer, U.S. Department of Energy Idaho Operations Office (DOE-ID)
Bob Pence, Federal Coordinator, DOE-ID
Dennis Faulk, U.S. Environmental Protection Agency (EPA), Region 10
Susan Burke, State of Idaho
Daryl Koch, State of Idaho
Brent Rankin, CWI

Others Present

Mark Arenaz, DOE-ID
Briant Charboneau, DOE-ID
Julie Conner, DOE-ID
Keith Lockie, DOE-ID
Ben Roberts, DOE-ID
Daniel Shirley, DOE-ID

Keith Hampton, Public
Bill Roberts, Public

Ceri Chapple, Support Services
Lori Isenberg, Support Services Facilitator
Lisa Aldrich, Support Services

Peggy Hinman, North Wind Services
Bryant Kuechle, The Langdon Group

Opening Remarks

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

Recent Public Involvement

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

Progress to Cleanup

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

Mr. Cooper provided an outline for the Transuranic Waste Disposition project, listing accomplishments since July. Twenty (20) of 88 ARRA remote-handled (RH) transuranic (TRU) shipments have been completed. They have shipped over 2,800 m³ of contact-handled (CH) TRU waste to the Waste Isolation Pilot Plant (WIPP) of the 5,108 m³ planned. The waste from 98 more ARRA canisters have been repackaged from the original 160 shipments. Two shipments per week have been implemented for U-233 waste. Mr. Cooper highlighted a couple of upcoming activities. They plan to complete off-site transport, treatment, and disposal of AMWTP U-233 and Hot Chemistry Lab waste by December. They will continue repackaging and shipping RH-TRU waste out of Idaho, with a new target date for completion of March 2011. A small business contract for Sodium Process System Design will be awarded in September/October 2010.

Mr. Cooper outlined the accomplishments since July of the AMWTP. Since the start of the contract extension, AMWTP has shipped 1,198 m³ of historically managed TRU waste reclassified as mixed low-level waste out of Idaho (through August 22, 2010). Since April 1999, 40,726 m³ of stored TRU and mixed low-level waste has been shipped from the INL site (through August 22, 2010). They are on schedule to complete all ARRA production and employment goals for the May through September 30, 2010, extension period. DOE is continuing to focus on the AMWTP contract award.

Mr. Cooper briefed the CAB on the RWMC (WAG 7) project objectives. They will conduct Non-Time Critical Removal Actions at the ARP I, II, III, and IV. They will exhume targeted waste material from the SDA. The targeted waste, i.e., Rocky Flats 741, 742, and 743 sludges, graphite waste, roaster oxides, and filters/prefilters, will be dispositioned. Remediation work will be completed in accordance with the ROD for Operable Units (OUs) 7-13/14. Mr. Cooper outlined the project accomplishments since July. They have completed in-situ grouting in SDA as per OUs 7-13/14 ROD through ARRA funding, five weeks ahead of schedule. ARP V construction is 95% complete. They have completed erection of ARP VI structural steel and completed outer liner installation. They have completed waste exhumation of 1.62 acres under the CWI contract, and packaged 19,300 drums of targeted waste. DOE has awarded a small business contract for construction of Pit 10W to North Wind. In upcoming months, DOE will start ARP V exhumation operations and complete ARP VII foundation concrete placement.

Mr. Cooper briefed the CAB on other CERCLA remediation project objectives. WAG 1: continue TAN groundwater remediation. WAG 3: complete Phase I, II, and III of the OU 3-14 ROD (in the near term this includes installation of drainage ditches and low-permeability pavement inside and outside of the tank farm, and reduction of anthropogenic water, all to support the continued reduction of perched water in northern INTEC). WAG 10: maintain site wide institutional controls and maintenance requirements, maintain Groundwater Monitoring

Program, maintain the site wide CERCLA Ecological Monitoring Program, remediate WAG 10 CERCLA sites at Central Facilities Area (CFA) and ATRC, maintain the New Site Identification Process for future CERCLA sites, and remediate unexploded ordnance (UXO) and explosives at designated areas in accordance with the OU 10-04 ROD.

Mr. Cooper outlined the Site-Wide (WAG 10) accomplishments since July. The Final OU 10-08 Remedial Design/Remedial Action work plan was submitted to the agencies for review and approval. The draft five-year review of CERCLA sites was submitted to the agencies for review and comment. UXO debris was cleared from 60 acres along Highway 20 within the Twin Buttes Bombing Range. No live ordnance was found. Investigations for live UXO were conducted at the Railcar Explosion Area and the Naval Ordnance Disposal Area. Future activities include the finalization of the 5-year review of CERCLA sites, completing recovery and disposal of known UXO within the Naval Proving Grounds, and TRA-74 soil site remediation.

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

Ongoing activities at TAN (WAG 1) include performing bi-monthly injections to support in-situ bioremediation, operating the New Pump and Treat Facility, and collecting required groundwater samples to track the progress of the remedial action. Some upcoming activities will be the development of the new work plan for remediation strategy (mid FY 11) and beginning operation of the Air Stripper Treatment Unit (ASTU) (September 2010).

The ICDF accomplishments since July include the receipt of 2,222 gallons of aqueous waste into the evaporation ponds; receipt of 5,288 yards³ of soil and debris in the landfill, and the performance of in-cell grouting of void spaces. An upcoming activity at the ICDF is the receipt and disposal of soil and debris from INTEC, ATRC, and RWMC site areas.

Mr. Cooper outlined some decontamination and decommissioning (D&D) objectives. They will decommission and demolish under the baseline program 7 high-risk facilities (6 completed) and 164 excess facilities (154 completed and 2 buildings 'demolition-ready'). Under ARRA funding they will decommission and demolish 5 high-risk facilities (Materials Test Reactor (MTR), Test Reactor Area (TRA) Hot Cells, Experimental Breeder Reactor (EBR)-II Reactor, CPP 601, and CPP 640), and 84 excess facilities (64 completed including 6 stretch goals). The ARRA D&D-ATRC project objectives include the demolition of 16 excess facilities (one stretch goal included) and 2 high-risk facilities (MTR and TRA Hot Cells). Mr. Cooper provided a timeline illustrating the accomplishments and goals of the ATRC/PBF D&D from 2006 to 2012. The ARRA D&D-ATRC project accomplishments since July include: the removal of the MTR vessel interior lower thermal shield plates; the TRA-632 Hot Cell drain line vent-point installations and line waxing; completing TRA-613 vault demolition; completing grouting of the TRA-713 tanks, and receiving approval from the Nevada National Security Site (NNSS; formerly known as the Nevada Test Site [NTS]) for TRA-632 Hot Cell #3 mixed-waste treatment plan for shipment to NNSS. Upcoming activities include completing TRA-632 Hot Cell Drain activities, completing the remaining Hot Cell manipulator removal activities, initiating TRA-632 Hot Cell 3 hazardous waste removal, completing TRA-730 vault demolition (stretch goal), and completing the MTR vessel pick.

ARRA D&D-INTEC project objectives include the demolition of 60 excess facilities and the demolition of 2 high-risk facilities: CPP-601 (Fuel Processing Facility) and CPP-640 (Head End Fuel Processing Facility). Mr. Cooper provided a timeline that depicts the accomplishments and goals for the D&D-INTEC project from 2006 to 2012. Some accomplishments since July include: completing transite removal and steel structure demolition of the Fuel Reprocessing building (CPP-601), and completing demolition of CPP-619, -762, and -1672. Some upcoming

activities include completing demolitions of CPP-694 (stretch goal); completing the demolition of Fuel Reprocessing Building (CPP-601), the completion of the CPP-1649 demolition, and continuing CPP-602 D&D.

The ARRA D&D-MFC project objectives include the demolition of 8 excess facilities and the demolition of one high-risk facility, the EBR-II Reactor. Mr. Cooper provided a timeline of accomplishments and goals for the ARRA D&D-MFC project from 2009 to 2012. Accomplishments since July include completing all elemental sodium treatment in MFC-766 West and performing camera inspections of the MFC-767 primary vessel. Upcoming activities include the continued asbestos removal in EBR-II, beginning passivated sodium treatment in the MFC-766/767 transfer lines, the finalization of the EBR-II Historical Preservation Actions, and completion of the MFS-793A Alcohol Recovery Facility Pad/Tank.

The IWTU (Sodium-Bearing Waste) project objectives are to design, construct, test, and operate the Sodium Bearing Waste Treatment Facility and process all sodium-bearing waste material no later than December 31, 2012. Mr. Cooper provided a timeline of the accomplishments and goals for the IWTU (Sodium-Bearing Waste) Project from 2006 to 2012. Accomplishments since July include: pipe fabrication and installation (treated water, instrument air, chilled water, steam/condensate, nitrogen, etc.), and the installation of electrical grounding, conduit, wire, cable, and cable tray. The project is at 75% for physical completion and 83% for overall project completion. Upcoming activities include systems testing/turnover, and completion of construction of systems needed for hot nitrogen integrated plant testing by October 2010, and remaining construction completion by December 2010.

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

Mr. Cooper briefed the CAB on the Spent Nuclear Fuel Disposition Project Objectives. They will transfer legacy, Environmental Management (EM)-owned spent nuclear fuel (SNF) from wet storage to appropriate dry storage (completed). Receive and store SNF from the ATR and receive Domestic and Foreign Research Reactor SNF will be received for storage. They will prepare the SNF facilities for transition to another government entity by installing a segregation fence (completed). Additionally, they will provide safe, regulatory-compliant, routine operations for INTEC SNF handling and storage facilities. Mr. Cooper provided a timeline of the accomplishments and goals for the Spent Nuclear Fuel Disposition Project from 2006 to 2012.

The Calcine Disposition Project objectives are to meet the requirements of the Idaho Settlement Agreement; issue a ROD regarding the treatment of calcine by December 31, 2009 (completed); submit an application for a Resource Conservation and Recovery Act (RCRA) Part B Permit governing the treatment and in-state disposition of calcine (transport and interim storage, if necessary); render calcine in a "road-ready" form (ready to be shipped out of State) by a "target" date of December 31, 2035; and meet the requirements of the Idaho Site Treatment Plan for the safe management of calcine as a mixed hazardous waste under the RCRA permits and agreed-upon milestones. Mr. Cooper provided a timeline of accomplishments and goals for the Calcine Disposition Project from 2006 to 2012. Accomplishments since July include the completed integrated review of Conceptual Design status with DOE-HQ, DEQ and EPA, and completing Phase I of the DOE-HQ directed Technology Readiness Assessment. Upcoming activities include: continue engineering evaluations and design in support of the RCRA Part B permit modification; and initiate technology assessments in support of the RCRA Part B permit modification.

Mr. Cooper provided a map illustrating where the \$6 billion of ARRA-DOE funding is going. Mr. Cooper illustrated the financial details of the INL ARRA projects with a pie chart. ARRA performance measures were illustrated in a table. Mr. Cooper provided a timeline of accomplishments and goals related to key activities and completion dates from 2005 to 2013. The Idaho Project milestones, post 2012, were also displayed in a timeline up to 2027.

In conclusion, Mr. Cooper discussed a few items of potential interest. He identified post 2012 contract activities, IWTU construction substantially complete, EM's Journey to Excellence, and the FY 2012 and outyear budget.

Discussion

Teri Tyler asked what system tests were planned next for IWTU. Mr. Cooper replied that testing of all remaining systems will be conducted over the next 1-1/2 months.

Willie Preacher asked about the pyrophoric issue with RH TRU treatment and whether any more problems were anticipated. Mr. Rankin responded that 2 cans of waste from Argonne National Laboratory-East (ANL-E) had characterization information indicating they did not contain pyrophorics although the cans came from a facility involving pyrophorics. There are 120 more cans to be processed, and the issue of pyrophorics must be resolved in order to comply with the RCRA permit and to send the treated waste to WIPP. There have been no problems with waste packaged to date.

Tami Sherwood asked about the reports in the newspapers about a groundwater study at INL that suggests the waste is deeper in the aquifer than the levels reached by wells. Mr. Koch noted that the report was authored by the U.S. Geological Survey (USGS), which is looking for contamination levels in the groundwater that are lower than the regulatory levels applied for clean up.

Tami Sherwood asked about the disposition of UXO. Mr. Cooper explained that the ordnance is moved to a disposal area and destroyed with explosives.

R.D. Maynard asked Mr. Cooper about the slowdown at IWTU 2 to 3 years ago, and commented that it would be useful to know whether there was a cost impact due to the delay. Keith Lockie, DOE, noted that there was an increase in project costs due to a variety of reasons, and the amount attributed to the delay could be identified. Mr. Cooper noted that DOE could put together information on the budgetary impacts of a delay for the CAB.

Decisions/Disposition

The report satisfied the informational need for the CAB.

Safety Performance Process

Mr. Brent Rankin briefed the CAB on safety performance at CWI. He provided information on safety performance from 2005 through 2010. He handed out a notebook called the Idaho Cleanup Project (ICP) Safety Toolbox to each CAB member and described its contents. This Toolbox is distributed to all workers. Mr. Rankin described the CWI safety programs and the success CWI has had with involvement of workers in running and maintaining the programs. He noted that CWI recently celebrated 1 million work hours without a recordable injury, only to have 2 recordable injuries occur. This highlights the need for constant vigilance and attention to safety.

Discussion

Susan Burke asked what the definition of a 'reportable' injury meant. Mr. Rankin replied that CWI follows the Occupational, Safety, and Health Administration (OSHA) definition. Examples of a reportable injury are those involving prescription medication or hospital care such as stitches. First-aid for bumps and bruises is not considered reportable.

R.D. Maynard asked whether the philosophy of ‘step back’ from unsafe activities was used by workers to avoid actually working. Mr. Rankin said that this may happen occasionally, but he has seen a strong work ethic among the CWI workforce.

Bruce Wendle asked how much effort goes into defining a job. Mr. Rankin responded that each job has a job safety analysis. This analysis is more detailed for higher risk jobs than for jobs involving less hazardous work conditions. Mr. Rankin commented that each CWI group has a work planner who reviews jobs and involves safety as needed.

R.D. Maynard stated that the work force was affected when clearance restrictions for workers were eased so that more outside workers could come in. Mr. Rankin responded that CWI retains a full-time core group of crafts people which is supplemented with subcontractors. The challenge is training contractors and communicating expectations that safety is paramount over ‘getting the job done.’ Keith Lockie noted that CWI has made efforts to instill a strong safety presence within supervisors and foremen, so that they are not just counting on safety professionals to communicate the importance of working safely.

Harrison Gerstlauer commented that he had been involved with the Voluntary Protection Program (VPP) in the past, and it was exciting to see how the program has matured.

R.D. Maynard commented that in the past, some contractors had a problem with the cost of implementing safety programs and their enforcement, and so safety requirements were ignored. He sees a change in the contractor mentality to support safety and to train subcontractors. Mr. Rankin agreed, commenting that safety keeps productivity high. Mr. Cooper also noted that DOE reviews contractor safety performance every quarter and the contractor award fee is largely tied to safety performance.

Decisions/Disposition

The report satisfied the informational need for the CAB.

Land Use Planning at the Idaho National Laboratory

Mr. Dan Shirley briefed the CAB on Land-Use Planning at the INL. He noted that the INL is updating its 10-year land use plan this year. He provided a history of the INL land use and mission and presented a map that showed INL land ownership. Mr. Shirley described the INL Comprehensive Land Use and Environmental Stewardship Report that defines current conditions, planning assumptions, legacy site characteristics, WAG end states and future use scenarios. He also explained that mission related facility needs are planned for in the INL Ten-Year Site Plan.

Mr. Shirley explained that 18 assumptions have been established for land use planning including assumptions that INL will achieve Nuclear Energy (NE)/National Security Missions; the entire INL site will remain under federal control for at least 100 years, new construction will be encouraged in existing facility areas and the core infrastructure area; environmental remediation will be performed and completed per regulations, and institutional control/barriers will be maintained as required. Mr. Shirley displayed maps with the INL WAGs, institutionally controlled areas, land use, and 10-year land use scenario. He also described non-DOE land use at the INL site, and noted that land use requests have been increasing for facilities such as communications towers and power transmission lines. Mr. Shirley also identified planned development at the INL and in-town facilities. Most development is centered at MFC, ATRC, and Idaho Falls.

Discussion

R.D. Maynard asked if funding for land use planning is all NE or whether some portion is from EM. Mr. Shirley replied that the plan is funded by NE. The current legacy management plan is that the EM mission wraps up in 2035 and all facilities will transfer to NE at that time.

Harrison Gerstlauer asked about plans for the facilities at CFA. Mr. Shirley replied that CFA will be retained for bus, medical, and fire protection services, but that most other activities will cease.

Willie Preacher asked if the Tribes might be involved in getting excess equipment. Mr. Shirley noted that there is a set process for surplus equipment disposition, and Mr. Cooper agreed to see if there were opportunities for the tribes to determine whether there was any property of interest to them.

Tami Sherwood commented she was pleased to see DOE investing money in the INL.

Decisions/Disposition

The report satisfied the informational need for the CAB.

Public Comment

No public comment was provided.

Sodium-Bearing Waste Treatment Update

Mr. Keith Lockie briefed the CAB on the status of the Sodium-Bearing Waste Treatment Project. The project is for design, construction, and commissioning of a new treatment facility with a total line item project cost of \$570.9 million. The contract also includes an operations campaign to treat the tank waste, with estimated operations costs of \$30 to \$40 million. The new facility's mission is to treat 900,000 gallons of radioactive liquid waste (referred to as sodium bearing waste or SBW) currently stored in underground tanks at the INTEC tank farm. The Idaho settlement Agreement required treatment of the tank waste by December 2012. Under a consent order, the remaining INTEC tank farm tanks are to be emptied by December 2012. The steam reforming technology that will be used converts acidic radioactive liquid waste to solid carbonate particles. The new facility will include a process building with reinforced concrete process cells inside a structural steel building, also with a product storage building. It is expected that 650 to 700 RH waste canisters will be produced. The product storage building will provide interim storage for the entire volume. The project is also referred to as the IWTU. Mr. Locke described the process flow for the treatment project. Construction efforts on the project are nearing completion. A celebration of the milestone of construction substantially complete is set for November. Remaining construction is scheduled for completion by the end of 2010. Systems testing is commencing and will run through February 2011. A series of readiness reviews is planned, with startup scheduled for late August 2011. The project is estimated to be complete as early as July/August 2012.

Mr. Lockie described a new approach that is being planned for start up that uses less hazardous materials during testing, uses a transition to operations period after final readiness to fine tune systems using waste and waste stimulant prior to actual waste treatment, and would have comprehensive performance testing performed during transition to operations.

Discussion

Harrison Gerstlauer asked a series of questions about the process for treatment and off gas control. Mr. Lockie explained the process and the expected effectiveness of the controls.

Teri Tyler asked about carbon emissions. Mr. Lockie clarified that carbon monoxide would be converted to carbon dioxide through the process.

Tami Sherwood asked about the vault load out structure and how the vault would be transferred. Mr. Lockie clarified that the air pallet would be used to transfer the vault.

Harrison Gerstlauer asked how many pallets would be used. Mr. Lockie replied that one pallet and a spare were planned.

Teri Tyler asked about plans for operation. Mr. Lockie replied that the goal was to operate at a steady state until completed except for a brief maintenance period.

Mr. Faulk asked how much mercury was expected to be collected on the absorbers. Mr. Lockie described how the mercury collection system would be operated and the carbon media disposed.

Decisions/Disposition

The report satisfied the informational need for the CAB.

Remote-Handled Low-Level Waste Disposal

Ms. Julie Conner briefed the CAB on the status of the INL RH Low-Level Waste (LLW) Disposal Project. She informed the CAB that replacement capability for disposal of RH LLW is required. Current plans are to continue waste disposal in the existing RH LLW disposal vaults through September 30, 2017. The existing vaults will be closed to support the ROD for WAG 7 OU 13/14. Continued capability to dispose RH LLW is needed to support ongoing and potential future missions at DOE's Idaho Site. The project sponsor is the DOE Office of NE, in collaboration with the Office of Naval Reactors. A mission need statement was approved for the project in July 2009. Ms. Conner provided information on projected RH LLW generation. RH LLW is generated at the ATR, NRF, and MFC, and may also be generated from potential future missions. The 20 year waste projections are estimated at about 2,000 m³. The waste is primarily comprised of activated metals and spent resin. It does not include TRU, Greater-than-Class C, or hazardous wastes. Ms. Conner addressed the National Environmental Policy Act (NEPA) approach. An Environmental Assessment (EA) is under development. The proposed action is to provide reliable replacement disposal capability for RH LLW generated at DOE's Idaho Site. Ms. Conner discussed related NEPA evaluations and the alternatives being evaluated in the EA. The public comment period is planned to begin in January 2011.

Discussion

Willie Preacher asked if the waste with high radiation levels would be classified as Greater-than-Class C. Ms. Conner explained that Greater-than-Class-C waste is different, as Greater-than-Class-C waste has no disposition path.

Tami Sherwood asked why burial at the SDA would not continue. Darryl Koch explained that a decision to move out of RWMC is needed because of the planned closure of RWMC. The vaults will be used until the RWMC is closed in 2017.

Harrison Gerstlauer asked about the RH LLW resins. Ms. Conner provided an explanation of how the resins are used and generated as RH LLW.

Susan Burke asked in the Nuclear Regulatory Commission would be involved in the onsite alternative were selected. Ms. Conner replied that under the onsite alternative, DOE would be self-regulating.

Susan Burke asked if the waste goes to NNSS, will it go to a new cell? Ms. Conner replied that the new cell planned at NNSS is for mixed waste. The RH LLW can go to the current NNSS disposal facility.

Dennis Faulk asked whether the EIS would be amended or a Finding of No Significant Impact (FONSI) would be issued if the onsite alternative is selected. Ms. Conner explained the status of the existing NEPA documentation and noted that the project is tiering from earlier NEPA decisions allowing selection of onsite disposal, subject to further NEPA review.

Mr. Koch requested a presentation on the DOE requirements for a landfill at an upcoming meeting, and suggested that if the project is far enough along, information on locations under consideration could be provided.

Decisions/Disposition

The report satisfied the informational need for the CAB. A follow-up presentation on DOE Order 435.1 requirements for waste disposal will be planned.

Buried Waste at the Subsurface Disposal Area

Mr. Mark Arenaz briefed the CAB on the background and history of the SDA at the RWMC. He provided a photo of the RWMC along with photos of past and current practices.. He explained that the site know known as the SDA was established in 1952 and now occupies 97 acres within the fence boundary, with waste occupying approximately 35 acres. The facility accepted waste from Rocky Flats, INL operations, and other generators. Disposal of TRU waste was discontinued in 1970 in favor of retrievable storage. The AMWTP began processing stored waste and shipping to WIPP in March 2004. Demonstration of waste retrieval in Pit 9 was conducted in February 2004, and buried waste exhumation in Pit 4 started in January 2005. Thirty-thousand (30,000) waste shipments have been made to the SDA, and approximately 241,000 m³, or nearly 425,000 containers, of waste has been disposed. Of the 425,000 containers, 230,000 are from Rocky Flats.

Mr. Arenaz provided an overview of the CERCLA process, and discussed the Remedial Investigation/Baseline Risk Assessment (RI/BRA). The RI/BRA presented site characterization information and risk predictions associated with buried waste in the SDA. It represented more than 10 years of work characterizing and assessing hazards in the SDA. The RI/BRA provides decision-makers with a basis for determining whether additional remedial actions at the SDA is necessary. The RI/BRA determined that the baseline risk (without remediation) is unacceptable. Twelve (12) radionuclides and 6 nonradionuclides pose unacceptable risk to human health and the environment based on a 1,000-year simulation period. A Feasibility Study was then conducted to identify technologies that could be used on the problem, develop alternatives for cleanup, and evaluate and compare alternatives based on 9 criteria. The 5 alternatives evaluated in the Feasibility Study were: (1) no action; (2) surface barrier; (3) in situ grouting; (4) partial retrieval, treatment and disposal; and (5) full retrieval, treatment, and disposal. Each alternative included an engineered surface barrier, continued operation of the Organic Contaminants in the Vadose Zone System, and long-term surveillance, maintenance, monitoring and institutional control. The approach to analysis allowed for combinations of technologies and implementation method among alternatives, to support selection of desirable attributes from more than one alternative.

Mr. Arenaz reviewed the litigation with the state of Idaho over interpretation of Settlement Agreement language regarding retrieval and shipment of TRU waste at the INL out of the state of Idaho. An agreement was approved in July 2008, and is referred to as the Agreement to Implement. The Agreement to Implement identifies the waste streams located in the SDA that need to be removed and sets a requirement for DOE to retrieve no less than 6,238 m³ of targeted waste from 5.96 acres within the SDA. Compliance will be measured by no less than 7,485 m³ of targeted waste packaged for shipment out of the state of Idaho. The defined pit areas will be fully excavated, and if DOE is unable to recover the volume in the Agreement from the 5.69 acres, DOE will continue to excavate in additional defined areas until the volume is reached. Any TRU waste retrieved from the SDA prior to December 31, 2017, will be shipped out of the state by December 31, 2018. Any TRU waste retrieved after December 31, 2017, will be shipped out of the state within 365 days from retrieval.

The ROD for OU 13/14 is consistent with the Agreement to Implement. It also includes in situ grouting of specific locations for protection against migration of TC-99 and I-129; covering the entire SDA with a barrier, and continuing vapor vacuum extraction. Long term monitoring, surveillance, maintenance and institutional controls would be maintained. The remedy would cost approximately \$1 billion in current dollars and would take 20 years.

Mr. Arenaz provided additional detail and explanation on the targeted waste. It includes sludges, graphite waste, filters and pre-filters, uranium oxide, and other waste streams agreed by the parties to be recognizable as TRU waste.

Mr. Arenaz reviewed public participation related to the decisions for buried waste. Three public meetings were held and attended by 160 people. There were 231 formal comments received; these comments are addressed in an Appendix to the ROD. The majority of the comments (52%) supported the preferred alternative. Those that supported full retrieval felt the preferred alternative was not protective of the environment. Other comments concerned the relationship between the ROD and the 1995 Settlement Agreement, the technical basis for selecting the acres of waste for retrieval, and requests for more information on long-term monitoring, grouting, and surface barriers.

In summary, Mr. Arenaz noted that the SDA is well characterized. Stored waste and buried waste are separate problems. For buried waste, the CERCLA process was followed to assess risks, develop alternatives and select a preferred alternative. Removal actions of targeted waste are underway and are successful. The final remedy will include continued vapor extraction, a surface barrier, and continued monitoring and institutional control.

Discussion

R.D. Maynard asked about the cost of ARP I through VII. Mr. Arenaz replied that the cost over 5 years is \$400 million, or about \$60 to \$80 million per year. Mr. Maynard noted that this was less than first estimates. Mr. Arenaz replied that full retrieval would have cost about \$6 billion. Mr. Maynard commented that cleanup is progressing at less cost than anticipated. Mr. Arenaz noted that as DOE gains experience with the project, it is getting more efficient.

Mr. Faulk commented that in his view things are really progressing on the project. It has taken a lot of work to get to this point.

Decisions/Disposition

The report satisfied the informational need for the CAB.

American Recovery and Reinvestment Act Work

Ben Roberts provided overview of the ARRA. The objectives of the ARRA for DOE are to start projects quickly, ensure projects have lasting value, provide the public with transparency, and make a significant down payment on the nation's energy and environmental future. Mr. Roberts provided information on the allocation of ARRA money at the DOE sites. The total EM allocation is \$6 billion. The program plans to complete the majority of projects and have funds spent by 2011. Mr. Roberts addressed the goals for ARRA funding awards to small businesses, and noted that small business contracts are executing quite well. Across DOE, he identified 10,485 full-time ARRA jobs, with a total head count of 24,234 prime contractor and subcontractor workers who have received compensation with ARRA funding since April 2009.

Mr. Roberts identified that ARRA projects are addressing milestones under agreements/orders in place with regulators for EM cleanup. ARRA projects are on track to accelerate 46 compliance milestones, and 23 of the 46 have been met. In addition, 8 small quantity sites are projected to be de-inventoried of legacy TRU waste during the ARRA implementation period. Mr. Roberts provided an overview of work being performed at the DOE sites.

Mr. Roberts addressed worker transition. EM desires to retain a pool of highly skilled labor force trained under ARRA. DOE-HQ has been working with sites to develop site specific worker transition plans. HQ is prepared to proceed with worker transition activities and is working to engage the contractor community to assist in supporting worker transition activities. The long-term vision is to develop contractor employee service centers to support EM contractor employees.

The challenges faced by DOE include definitizing all ARRA activities in contracts by FY 2010, executing projects and making payments, executing critical decisions, and worker transition. Mr. Roberts provides observations and lessons learned. Pre-planning and characterization are keys to safety. Early and frequent communication is essential. On-the-ground site representatives have been useful in providing site assessment, assistance, advocacy, and oversight. Vigorous engagement between DOE-HQ and sites, strong project financial and change control, and clear project scope are important.

Mr. Roberts summarized his overview with the message that safety is DOE's #1 priority for all EM ARRA projects. He recapped the amounts spent to date and the numbers of workers benefitted. He also provided additional resources to learn more about the EM program.

Discussion

R.D. Maynard asked how the number of full time equivalents and head count is figured. Mr. Roberts replied that part-time employees may be added up to equal full time equivalents when figuring that number. Head count is intended to show how many people benefitted from ARRA funds. Mr. Maynard commented that ARRA was intended to stimulate new jobs instead of paying someone with a job. Mr. Rankin identified that 600 jobs were created or saved with stimulus money.

Harrison Gerstlauer asked whether materials were recovered or recycled during projects for demolition of facilities. Mr. Roberts identified that radioactively contaminated items cannot be recycled, but other offices have recycled materials. Mr. Rankin stated that chemicals and furnishings have been reused, but many items were not salvageable.

Decisions/Disposition

The report satisfied the informational need for the CAB.

Public Comment

No public comment was provided.

Announcements and Other Board Business

There is a Legacy Management Workshop planned in Grand Junction, Colorado, beginning November 16. Two CAB members may plan to attend. The next regularly scheduled CAB meeting will also be held on November 16, unless there are additional conflicts.

CAB Work Session

The CAB discussed the need to follow up with the Blue Ribbon Commission and make a recommendation on the white paper that DOE-ID sent. The CAB feels there should be some urgency associated with identifying a repository for high level waste, including sodium-bearing waste and calcine. The letter from the CAB could agree with the facts in the white paper and address the CAB's concerns that there is not enough time to take what it took to establish Yucca Mountain, that delays will be costly, and that there is the problem of potential fines and pre-emptive fines. The letter will be addressed to the Blue Ribbon Commission. Tami Sherwood, R.D. Maynard, and Willie Preacher will coordinate on a draft, and the support contractor will arrange for distribution to the CAB members for review.

The CAB developed an agenda for potential topics of the November 16th CAB meeting:

- Progress to Cleanup
- D&D of EBR-II
- DOE Order 435.1 for radioactive waste management
- ICP labor strategy and Planning for 'buy back' or early out for ARRA funded employees
- CAB Planning and Discussion – leadership, annual plan and meeting schedule, public outreach, membership, committee structure.

The CAB discussed the benefits of including a tour in November of EBR-II. Topics identified for future meetings include:

- Hanford buried waste
- CERCLA 5 year review
- EM Journey to Excellence.

Action Items:

1. R.D. Maynard, Tami Sherwood, and Willie Preacher will work on a draft letter to the Blue Ribbon Commission; the Support Staff will circulate it among the CAB members for review.
2. Support staff will coordinate and distribute travel information to CAB members attending the Legacy Management Conference in Grand Junction, Colorado.
3. Support staff will coordinate and distribute travel information to CAB members attending the November meeting in Idaho Falls, Idaho.

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

I certify that these minutes are an accurate account of the September 29, 2010, meeting of the Idaho National Laboratory Site Environmental Management Citizens Advisory Board.

R. D. Maynard, Chair

10/18/2010



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