Many Voices Working for the Community

Oak Ridge Site Specific Advisory Board

Approved May 14, 2014, Meeting Minutes

The Oak Ridge Site Specific Advisory Board (ORSSAB) held its monthly meeting on Wednesday, May 14, 2014, at the DOE Information Center, 1 Science.gov Way, Oak Ridge, Tenn., beginning at 6 p.m. A video of the meeting was made and may be viewed by contacting the ORSSAB support offices at (865) 241-4583 or 241-4584. The presentation portion of the video is available on the board's YouTube site at www.youtube.com/user/ORSSAB/videos.

Members Present

Jimmy Bell
Noel Berry
Alfreda Cook
Carmen DeLong
Lisa Hagy, Secretary
Bob Hatcher
David Hemelright, Chair
Bruce Hicks, Vice Chair
Jennifer Kasten
Jan Lyons
Fay Martin
Donald Mei
Mary Smalling
Coralie Staley
Scott Stout

Members Absent

Howard Holmes
Scott McKinney
Greg Paulus
Belinda Price[1]
Wanda Smith[1]

[1]Second consecutive absence

Liaisons, Deputy Designated Federal Officer, and Federal Coordinator Present

Dave Adler, Department of Energy-Oak Ridge Office (DOE-ORO), Alternate Deputy Designated Federal Officer (DDFO)
Connie Jones, Environmental Protection Agency (EPA)
John Owsley, Liaison, Tennessee Department of Environment and Conservation (TDEC)
Melyssa Noe, ORSSAB Federal Coordinator, DOE-ORO

Others Present

Aditya Chourey, Student Representative
Karen Deacon, DOE
Nona Girardi, Northern New Mexico Citizens' Advisory Board
Spencer Gross, ORSSAB Support Office
Andrew Kern
Pete Osborne, ORSSAB Support Office
Claire Rowcliffe, Student Representative
Roger Thompson, Tennessee Emergency Management Agency
Carlos Valdez, Northern New Mexico Citizens' Advisory Board

Laura Wilkerson, DOE

Thirteen members of the public were present.

Liaison Comments

Mr. Adler – Mr. Adler reported that Mark Whitney, the DOE Oak Ridge Manager for Environmental Management (EM) has been promoted to DOE Principal Deputy Assistant Secretary for EM. He will report to the Assistant Secretary for EM in Washington, DC. That position is currently vacant and will be filled by political appointment. Sue Cange, the Deputy Manager for EM in Oak Ridge, will serve as the Acting Manager until a new manager for EM is named.

Demolition has begun on the K-31 Building at East Tennessee Technology Park (ETTP). While demolition is underway, work is being done to prepare the K-27 Building for demolition. K-27 still has all of the process equipment in place that was used to enrich uranium. Remaining contamination in the equipment needs to be stabilized before the equipment can be disposed in the on-site disposal facility. Mr. Adler said completing demolition of K-31 will free up additional space at ETTP for industrial redevelopment.

Mr. Adler said a ceremony was held earlier in the day to transfer a significant amount of land at ETTP for industrial redevelopment. Two areas, known as Economic Development Parcels, were transferred from DOE ownership to the Community Reuse Organization of East Tennessee for eventual private industrial use. The area is more than 30 acres with infrastructure in place. Mr. Adler said the transfer allows for a corridor from the front of ETTP to the back of ETTP that is unimpeded by DOE security barriers.

Mr. Adler said there are no outstanding recommendations from ORSSAB for DOE to address except those that were approved at this meeting. He said the recommendation on the FY 2016 DOE Oak Ridge EM Budget Request will be sent to DOE Headquarters with the Oak Ridge EM budget request.

Ms. Jones – Ms. Jones said members of the ETTP Project Team met to discuss the three exposure units that make up the footprint of the former K-25 Building and how best to evaluate the area and allow DOE to begin characterization. She said there are a number of processes that need to be worked out before characterization can begin, but the project team is working to resolve the issues.

Mr. Owsley – Mr. Owsley said that as a result of reorganizing the TDEC DOE Oversight Office, Kristof Czartoryski will assume the duties of the TDEC liaison to ORSSAB. Mr. Czartoryski is the TDEC official responsible for the Federal Facility Agreement for the Oak Ridge Reservation (ORR). Mr. Owsley will remain as the manager of the TDEC DOE Oversight Office. Mr. Czartoryski's first ORSSAB meeting will be in June.

Mr. Owsley said the 2013 TDEC Environmental Monitoring Report has been published and will be available on the TDEC website at http://www.tn.gov/environment/remediation_energy-oversight-reports.shtml.

Public Comment

None.

Presentation

Ms. Wilkerson's presentation was an update on the Transuranic Waste Processing Center (TWPC). The main points of her presentation are in Attachment 1.

She began by pointing out the location of the TWPC (Attachment 1, page 2), just south of Oak Ridge National Lab (ORNL) on Highway 95.

She explained that transuranic (TRU) waste is waste contaminated with man-made elements with a heavier atomic weight than uranium that have a half life of more than 20 years. She said TRU waste has to be treated differently than other waste on the ORR and requires a geologic repository for disposal. It cannot be disposed in a shallow landfill and must be sent to the deep repository in New Mexico, the Waste Isolation Pilot Plant (WIPP).

The TRU waste in Oak Ridge is associated with research activities at ORNL, much of it dating back to the Manhattan Project. The waste consists primarily of protective clothing, tools, lab debris, and soils.

The regulatory driver to dispose of TRU waste is an order from the TDEC Commissioner to implement a Site Treatment Plan that specifies requirements to treat and dispose it (Attachment 1, page 4). DOE's mission is to process, segregate, and repackage the ORNL TRU waste for disposal at WIPP.

The TRU waste inventory in Oak Ridge consists of four different waste steams (Attachment 1, page 4). About 1,600 cubic meters of supernate was disposed in 2004. About 1,500 cubic meters of contact-handled (CH) and about 560 cubic meters of remote-handled (RH) waste is currently being processed. Some has already been shipped to WIPP. When the CH and RH inventories are completed about 2,000 cubic meters of RH sludge will be processed and disposed.

Ms. Wilkerson showed an aerial photograph of the TWPC (Attachment 1, page 5). The TWPC includes 44 facilities on 15 acres. It has operated since 2004 with 4.5 million man-hours without a lost-time incident.

To date 95 percent of the 1,500 cubic meters of CH waste has been processed and 68 percent has been shipped for disposal (Attachment 1, page 6). Of the 560 cubic meters of RH waste 65 percent has been processed and 21 percent shipped for disposal. Ms. Wilkerson explained that RH waste has a higher activity level than CH waste and must be handled remotely.

Ms. Wilkerson explained that the Central Characterization Project (CCP) is an independent body that provides characterization and certification of waste to ensure it meets the waste acceptance criteria for WIPP. In 2011 CCP activities in Oak Ridge were suspended because of budget constraints. In response, DOE in Oak Ridge and the TRU waste contractor took over field characterization to provide continued support for waste processing at TWPC. During CCP's absence DOE and the contractor repackaged, characterized, and staged TRU waste for future CCP certification and shipment. In addition, low-level and mixed low-level waste that could be disposed elsewhere was segregated, repackaged, and disposed. CCP returned as planned in October 2013 (Attachment 1, page 8).

In February 2014 two incidents at WIPP forced the temporary closure of the facility. On February 5 a truck used to transport salt in the mine caught fire. Then on February 14 there was a contamination release (Attachment 1, page 9). A report has been issued on the truck fire incident, but the contamination release is still under investigation. It is not known how long WIPP will be closed while the investigation continues. As a result impacts for the TRU waste program in Oak Ridge are being evaluated.

Ms. Wilkerson said the preliminary plan is to maximize continued progress and utilization of existing resources to process and certify waste (Attachment 1, page 10). Processing of CH waste

and low-dose RH waste casks will continue in order to meet Site Treatment Plan milestones. Waste that is processed can be stored on-site for a time. Ms. Wilkerson said processing of high dose RH is delayed because available storage capacity for it at TWPC has been reached. She said additional RH storage capacity may have to be established depending on the duration of the WIPP suspension.

Near term priorities are to complete the CCP certification approval process and to continue to prioritize and stage TRU waste drums for CCP certification activities. The CH waste inventory will be relocated as needed to allow continued processing of CH waste during the WIPP suspension. The fourth priority is to complete CH and RH TRU debris processing.

Ms. Wilkerson said future work will be to process the RH sludge. Most of it is stored in the Melton Valley Storage Tanks, which are eight 50,000 gallon tanks inside an underground concrete vault (Attachment 1, page 12). Processing the sludge will require building additional facilities to handle the sludge and remaining supernate. The Sludge Facility Buildouts are in the conceptual design stage.

After Ms. Wilkerson's presentation a number of questions were asked. Following are abridged questions and answers.

Ms. DeLong: I've heard rumors that TWPC may be nearing the end of its operational life. Is that true? Ms.Wilkerson: Once we complete processing and disposing of CH and RH waste, and then we modify it to treat and remove sludge we're pretty much done with TWPC and then it would be prepared for decommissioning and demolition. There are potential uses for it by ORNL since they will continue to generate new waste, but that is much less than what TWPC current handles. So that would have to be evaluated, but a final decision has not been made. We are going to have a mission for several years to come until we complete the legacy processing. So there is an opportunity there if the science program wants to use the facility. Ms. DeLong: What is the schedule to finish the work? Ms. Wilkerson: We have a baseline plan to complete the process of CH and RH debris by 2017 and then the follow-on sludge program into the mid-2020s, but because of the WIPP suspension there will likely be impacts to that.

Mr. Hatcher: My question is related to the sludge. Is there intent to look at what other sites are doing with sludge and is the composition similar to that at Hanford? And is there a possibility to ship the sludge to Hanford where they're spending $12 million on a facility dedicated to that kind of process. Ms. Wilkerson: We have done a lot work with Hanford and Savannah River and getting their experts here to look at what we have. We had an external technical review conducted in 2012 that included experts from Hanford, Savannah River, and headquarters. Ms. Deacon and I went to Hanford last year and spent a couple of days talking with Hanford and the Office of River Protection people who deal with the tanks there. From that we learned about how different our waste is from theirs. So the approach we're taking is the right approach because it is liquid waste and there is not a feasible transportation option so it has to be processed on site. But even if it could be shipped it is so different from theirs it wouldn't be practicable to send it there.

Mr. Bell: Did you mention your definition of TRU waste? Ms. Wilkerson: It's 100 nanocuries per gram. Mr. Bell: A question regarding the tanks in Melton Valley. You have eight tanks that hold about 250 cubic meters per tank. Then you remove the liquid. The contract in the late 1990s included the removal of remote-handled sludge in the same contract. What happened? Why was it not included in this contract and who is now going to do it? You said you're doing designs for buildouts. I assume you're doing designs to get the sludge out of the tanks, which means you're going to add a lot of water to it and you're going to end up with a lot more supernate. What are you going to do with that? Is it going to be drawn off and sent to TWPC as well? Ms. Wilkerson: The sequence in the original contract was to process the supernate, and then the sludges and was to be

disposed as TRU waste. At the time WIPP was not ready to accept TRU waste. So the activity was re-sequenced and the debris work was prioritized following completion of supernate processing. That in combination with funding challenges we have had over the years has caused the processing of the sludges to be delayed. We have a plan for the design activity for the buildouts in the near term. We have a solicitation to procure a design and testing only contract. After that we'll decide how we'll procure for construction of modifications to the facility. Mr. Bell: Does the design for the removal of that waste include consideration of the British system, which was rejected by Hanford? Ms. Wilkerson: Yes, the conceptual design includes use of the same type of pulse jet fluidics system that was used in the past at ORNL to transfer sludges.

Mr. Thompson: If WIPP is down for six months to two years, is there capacity to hold processed waste or any incoming waste? Ms. Wilkerson: There is some waste at Nuclear Fuel Services (in Erwin, Tenn.) that was generated as a result of some work they did in support of past DOE missions. So we have served as a vehicle for that waste to be shipped to WIPP. What we committed to do was to receive the waste and certify it for shipment to WIPP. We did not commit to storing that waste. As a result of the 2011 suspension we had to accept some waste that they had generated or were in the process of generating. Because of the uncertainty at WIPP we felt it was prudent to put a pause to that until we determined what the impact of the WIPP suspension would be on our missions and operations because we have Waste Treatment Plan milestones that are our priority. As we learn more about the situation at WIPP we'll update those plans as needed to support them.

Mr. Kern: You say the RH waste comes in concrete casks. Is that generated on site or does it come from other places in the country? Ms. Wilkerson: Much of it dates to the Manhattan Project. The majority was generated at ORNL. I don't know for a fact if some came from other sites in the 1940s and 50s. But it is waste that had been in storage for many years in earthen covered trenches. It was exhumed and stored at ORNL before being transported to TWPC. Mr. Kern: Those casks can't be shipped for disposal at WIPP? Ms. Wilkerson: No, they do not meet the waste acceptance criteria at WIPP as is.

Committee Reports

Budget & Process – No report. The committee did not meet in April

EM & Stewardship – Mr. Hatcher said the committee met on April 16 and received an update on the removal of technetium contaminated sludge from the Oak Ridge city sewer system. The technetium inadvertently got into sewer lines at ETTP and ended up at a waste water treatment system. DOE took control of the contaminated material and had it shipped off site for disposal.
The committee also heard a report on the 2014 Remediation Effectiveness Report for the ORR. The report documents the effectiveness of remedial actions taken to mitigate contamination of radioactive or hazardous waste areas on the reservation. The committee determined no recommendation was needed on the report.

The committee heard a report on enhancing the acquisition, storage, and retention of EM data for future use. The issue manager for the topic said there were a number of questions that require answers and the topic was not ready for discussion of a possible recommendation.

Public Outreach – No report. The committee did not meet in April.

Executive – The committee did not meet in April. However, Mr. Hemelright said a number of board members attended the EM SSAB Chairs' meeting in Pasco, Wash., and he provided a report on the meeting.

He said meeting participants toured the nearby DOE Hanford site. He said Hanford has a very large amount of tank waste, and he understood why Hanford receives a large portion of DOE EM funds to clean up tank waste.

At the meeting the next day, Dave Borak was introduced as the acting Designated Federal Officer. Mr. Hemelright said he expected Mr. Borak to be a capable interim leader for the EM SSAB.

Jack Craig, the Acting Deputy Assistant Secretary for EM, briefed the group on the various cleanup operations at the various sites in the DOE complex and the how the budget for FY 2015 was shaping up. Part of that discussion was about the temporary closure at WIPP and how it affects some of the sites, including Oak Ridge. Mr. Craig charged the site specific boards to identify community expectations with reduced funding and how increase public participation in SSAB meetings.

Frank Marcinowski, the Deputy Assistant Secretary for Waste Management, provided an update on the situation at WIPP. Shortly after the Chairs' meeting a report was issued and there is speculation the facility could be closed for many months.

Mr. Hemelright said the chairs of the various board discussed cross-cutting issues, and common themes are community involvement, membership, budgets, and groundwater.

The chairs approved two recommendations that will be brought before individual boards for consideration. ORSSAB will review and vote on the recommendations at the June meeting.

Announcements and Other Board Business
ORSSAB will have its next meeting on Wednesday, June 11, 2014, at the DOE Information Center.

The minutes of the April 9, 2014, meeting were approved.

Mr. Chourey and Ms. Rowcliffe were introduced as new student representatives to the board.

The Recommendation on Additional Off-site Groundwater Migration Studies (Attachment 2) was approved.

The Recommendation on Additional Waste Disposal Capacity on the Oak Ridge Reservation (Attachment 3) was approved.

The Recommendation on the FY 2016 DOE Oak Ridge Environmental Management Budget Request (Attachment 4) was approved.

Federal Coordinator Report
Ms. Noe reminded those who traveled to the Chairs' meeting that if they have not been reimbursed for expenses to let her know.

Additions to the Agenda
None.

Motions
5/14/14.1
Ms. Cook moved to approve the minutes of the April 9, 2014, meeting. Ms. Martin seconded and the motion passed **unanimously.**

5/14/14.2
Mr. Hatcher moved to approve the Recommendation on Additional Off-site Groundwater Migration Studies. Ms. DeLong seconded and the motion passed **unanimously.**

5/14/14.3
Ms. Martin moved to approve the Recommendation on Additional Waste Disposal Capacity on the Oak Ridge Reservation. Ms. Staley seconded and the motion **passed** with 14 members voting 'yea,' no members voting 'nay,' and one member (Mr. Berry) abstaining.

5/14/14.4
Mr. Hemelright moved to approve the Recommendation on the FY 2016 DOE Oak Ridge Environmental Management Budget Request. Mr. Hatcher seconded and the motion passed **unanimously.**

The meeting adjourned at 7:30 p.m.

Action items
Closed

Attachments (4) to these minutes are available on request from the ORSSAB support office.

I certify that these minutes are an accurate account of the May 14, 2014, meeting of the Oak Ridge Site Specific Advisory Board.

Dave Hemelright

Dave Hemelright, Chair June 12, 2014
Oak Ridge Site Specific Advisory Board
DH/rsg