



Many Voices Working for the Community

Oak Ridge Site Specific Advisory Board

Monthly Meeting of the Oak Ridge Site Specific Advisory Board

Approved June 13, 2018, Meeting Minutes

The Oak Ridge Site Specific Advisory Board (ORSSAB) held its monthly meeting on Wednesday, June 13, 2018, at the DOE Information Center, 1 Science.gov Way, Oak Ridge, beginning at 6 p.m. A video of the meeting was made and may be viewed by contacting ORSSAB support offices at (865) 241-4583 or (865) 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

Leon Baker
David Branch
Richard Burroughs
Martha Deaderick
Eddie Holden
Michelle Lohmann (by phone)
Leon Shields
Bonnie Shoemaker
Fred Swindler

Rudy Weigel
Dennis Wilson, Chair
John Tapp

Members Absent

Venita Thomas
Kathryn Bales
Christopher Beatty
Belinda Price, Vice Chair
Ed Trujillo
Deni Sobek

Liaisons, Deputy Designated Federal Officer, and Alternates Present

Kristof Czartoryski, Tennessee Department of Environment and Conservation (TDEC)
Brian Henry, OREM's Y-12 Portfolio Federal Project Director.
Melyssa Noe, ORSSAB Alternate Deputy Designated Federal Officer (DDFO), Department of Energy, Oak Ridge Office of Environmental Management (DOE-OREM)

Others Present

Shelley Kimel, ORSSAB Support Office
Teresa Lamarche, ORSSAB Support Office
Olivia Fleenor, Oak Ridge High School

Nine members of the public were present.

Mr. Wilson reminded members there will be no July meeting. He also asked all members to RSVP to the August annual meeting on August 25, 2018 in Gatlinburg, TN.

Liaison Comments

Ms. Noe –welcomed a new student representative, Olivia Fleenor. She explained that the original topic for this meeting, groundwater, has been moved to October when David Adler will be available. She reminded members that it's important to participate in the annual meeting and to fill out and return the member survey.

Mr. Czartoryski – No comments.

Public Comment

Luther Gibson said that he is a former member of the board and wanted to share with the board some history, including the details of some former meetings. Particularly he noted the June 2012 meeting on Y-12 Cleanup. He expressed concern that the ORSSAB website does not have a full list of materials charting its entire history. He

asked that at least the board minutes and recommendations be found and posted. He asked if the board might not look into that. A full copy of his remarks is included (Attachment 1)

Mr. Wilson read aloud a comment from a member of the public (Attachment 2) regarding signage on East Fork Poplar Creek, which was emailed to the board. Mr. Czartoryski reported he previously addressed the comment via email with the individual, he said.

Presentation

Mr. Henry gave a presentation (Attachment 3) on the Outfall 200 Mercury Treatment Facility (MTF).

Mr. Henry began by showing members a map of Y-12 where MTF will be built. He explained that groundwater on the site flows from West to East, which informs where OREM chooses to clean up buildings to minimize groundwater contamination. MTF is sited at the portion of the site where water ultimately collects. There is a short-term goal to get mercury in water leaving the Y-12 plant to be below 200 parts per trillion (ppt). A long term goal is to lower that to less than 51 ppt.

MTF will address that goal as well as serve as a line of defense against additional mercury discharges caused by demolition of contaminated buildings. MTF will have two sections – a headworks site that will capture all water on the site and filter it for solids. There will also be a 2 million gallon storage tank to handle high water flow from storms or other excess rain. About half a mile away, the water treatment plant will be built to fully remove any contaminants. The first step will be to dechlorinate the water. The next step is to precipitate out harmful elements. The third step will remove those particles. Then flocculation(?) and then last step is filtration. This is very similar to the process used to create drinking water. Mr. Henry explained that safe concentrations of mercury in water are different depending on use: Recreational Use has the most stringent requirements at 51 parts per trillion.

Construction began in December 2017 on early site activities including earthmoving and removing abandoned utilities. Some existing facilities were also demolished. A separate contract is expected later this fall for actual building of the facility itself. He noted it's important to remove and prepare as much as possible prior to bringing in a construction crew due to the difficulties posed by security measures at Y-12.

Extensive excavation has been done of foundations from previous buildings on the site as well as some unexpected areas OREM discovered, such as a basement space. The current activity is building a secant wall to isolate the creek from future building and construction work.

The contract for construction requires completion within four years of the award. The facility is expected to be operational by 2024 or earlier, depending on funding availability. Based on the agreement with regulators, OREM will operate the facility for two years to make sure it is appropriately reducing the mercury. If the goal is not met, additional discussions will be had on how to accomplish the reduction.

After the presentation board members asked the following questions.

Mr. Swindler asked how OREM will dispose of contaminants removed from the water. Mr. Henry said the resulting material should be able to be disposed on the reservation landfill.

Mr. Burroughs asked what the current measure for mercury is at the labs. Mr. Henry said he thought they could detect as low as to 5 parts per trillion (ppt). Mr. Czartoryski confirmed that there are approved methods that can result in detection of mercury in water below the level of 51 ppt, which is the level required by the state for water approved for its strictest guidelines – those for recreational use. Mr. Henry clarified this statement by stating that not only mercury can be detected but also it can be quantified below this level. The Quantification Level (QL) is the minimum concentration at which we can be confident that the numerical result is accurate.

Subsequently Mr. Czartoryski provided this information: EPA approved Method 1631 Revision E in 2002. Method 1631E has a quantitation level of 0.5 ppt, making it 400 times more sensitive than older Methods 245.1 and 245.2. In addition to Methods 245.1, 245.2, and 1631E listed above, EPA approved Method 245.7 as well as modified versions of other EPA-approved methods on March 12, 2007. See 72 FR 11200. Method 245.7 has a quantitation level of 5.0 ppt, making it 40 times more sensitive than Methods 245.1 and 245.2.

Mr. Holden asked if getting the MTF operational will delay demolition of nearby buildings. Mr. Henry said the MTF was needed to be operational before any buildings are demolished. He reminded members that there is about 2-3 years of cleanup work required inside contaminated buildings prior to demolition.

Mr. Wilson asked how efficient the MTF would be. Mr. Henry said the theoretical number is an 84 percent reduction in mercury leaving Y-12. He referred members to a video on the facility created by OREM (<https://www.youtube.com/watch?v=RWQhLtafBT4>). Mr. Henry said after the facility was operational OREM would like to raise efficiency to in the 90 percent range for removal.

Ms. Shoemaker asked specifically what would happen to mercury removed from the water. Mr. Henry said it would be combined with other solids removed from the water into a sludge that would be dried and solidified. However, the mercury content would still be so low that it would be safe for it to go into the onsite landfill. Ms. Deaderick asked for clarification on the treatment of sludge. Mr. Henry said that after the sludge was dried, OREM would take samples and characterize it to make sure it met standards for disposal in the sanitary landfill. Mr. Tapp asked what those standards were. Mr. Henry said the Toxic Characteristic Leaching Procedure is used to identify if waste is hazardous or not hazardous. Basically, he said, contamination higher than 4 parts per million would undergo further testing to ensure no hazardous waste enters the sanitary landfill. Ms. Deaderick said she was astounded at the high level of mercury allowed in drinking water.

Mr. Baker asked what would happen to MTF after the two year testing period. Mr. Henry said those two years would be used to fine tune the facility's operations. After that OREM would look at changes that might need to be made or improvements that could be implemented. The plant, he said, was built to be modular so additional treatment can be implemented through modifications.

Ms. Shoemaker asked what would happen to mercury in facilities on the east end of Y-12. Mr. Henry said there is an existing mercury treatment system that addresses that facility.

Mr. Gibson asked if there was thermal treatment of the sludge. Mr. Henry said no. Mr. Gibson asked if the material testing will be done on a routine basis. Mr. Henry said yes, once the facility is operational the tests will be done regularly before disposal.

Motions

6/13/2018.1

Mr. Burroughs motioned to follow up on Mr. Gibson's request regarding the archives. Mr. Weigel seconded the motion. It passed unanimously.

6/13/2018.2

Mr. Burroughs motioned to approve the agenda. It was seconded and approved unanimously.

6/13/2018.3

Mr. Burroughs motioned to approve the April minutes. Mr. Baker moved to approve and Mr. Holden seconded. The motion was approved unanimously.

6/13/2018.4

Mr. Burroughs motioned to create a nominating committee for FY19 officers. Leon Baker, Fred Swindler, Bonnie Shoemaker and John Tapp asked to serve. Mr. Burroughs approved the motion and David Branch seconded. The motion was approved unanimously.

6/13/2018.5

Mr. Wilson motioned to approve the EMSSAB Chairs Recommendation (Attachment 4). Ms. Shoemaker moved to approve and Mr. Baker seconded. The motion was approved unanimously.

Mr. Wilson gave an overview of the recommendation and shared some of his experiences touring WIPP at the EMSSAB Chairs Meeting. Mr. Wilson directed members to the trip reports from himself, Ms. Price and Ms. Kimel to get additional details. Additionally, meeting minutes should be provided by headquarters in the near future.

Mr. Burroughs asked how changing the waste acceptance criteria could extend the life of WIPP. He also asked about mining activities. Mr. Wilson said, yes, if they change the waste criteria they can accept more waste. He noted that WIPP workers are mining the salt as they go due to the way salt shifts and collapses over time. However, the site is limited on the total amount of waste it can accept due to agreements set in place during the creation of WIPP. Mr. Burroughs clarified that salt flows. Mr. Burroughs asked how much additional space is available. Mr. Wilson said the salt deposits extend through several states, but DOE is not permitted to expand in those areas. The current site in New Mexico is the only permitted site.

Mr. Tapp asked if the shifting causes issues on the surface. Mr. Wilson said no, the mine is too far under the surface. Mr. Tapp asked what happens to salt removed from the mine. Mr. Wilson said it is stacked on the surface. It is clean and useable for other tasks.

Mr. Weigel asked why the airflow in the mine had been reduced. Mr. Wilson said additional filtration of the air slows the circulation. The extra filtration was implemented after the accident that caused the closure of the mine in previous years.

Alternate DDFO Report

Ms. Noe said there are no current recommendations to discuss, but she wanted to talk about new member packages. They were sent to headquarters in February, but have not had feedback. She suggested doing tours anyway for the potential new members. However, she noted it could pose a problem for the August annual meeting. Those six individuals would not be able to be reimbursed unless they were official members.

Committee Reports

EM & Stewardship – Mr. Swindler went over the May 23, 2018 EM and Stewardship Committee meeting. Karen Thompson in planning and baseline management answered questions on the FY2020 budget formulation. He noted that all action items had been addressed by email.

Executive – The committee met on June 6, 2018. Mr. Wilson noted that it was mostly a discussion on the annual planning meeting. Ms. Kimel asked members to send her their RSVPs for the event.

Mr. Wilson noted that work was ongoing on the public outreach presentation. He encouraged members to volunteer to do presentations or share ideas for where presentations could be made. He emphasized that it was also a very strong recruiting tool.

Open Discussion

Regarding the archives availability mentioned by Mr. Gibson, Ms. Noe said several years ago OREM had to move to a new website server. She said they worked to move everything over. She noted that while the ORSSAB site only has some of the minutes and other information currently, that all of those documents are indeed on the

DOE Information Center (DOEIC) website. She said maybe there was a problem with links on the website. She said she would follow up with website admins on this issue.

Mr. Tapp asked if ORSSAB documents could be indexed by topic. Ms. Noe said that could be done at the DOEIC website, but the ORSSAB listing was chronological. She said she would see if the DOEIC site could be linked to the ORSSAB site.

Announcements and Other Board Business

ORSSAB's next scheduled meeting will be the Annual Planning Meeting Saturday, August 25, 2018 from 9:00 a.m. – 2:30 p.m. at the Black Bear Inn in Gatlinburg.

Action Items

Open

1. Ms. Noe will investigate restoring access to older ORSSAB documents on the ORSSAB website.

Closed

2. Staff will send an email to board members to gauge their interest in giving presentations about the board to community groups. **Completed by email 2/15/2018**

Mr. Wilson adjourned the meeting at 7:15 p.m. Attachments (4) to these minutes are available upon request from the ORSSAB support office.

I certify that these minutes are an accurate account of the June 13, 2018, meeting of the Oak Ridge Site Specific Advisory Board.

Richard Burroughs, Secretary



Dennis Wilson, Chair
Oak Ridge Site Specific Advisory Board
DW/smk

8/25/18