

Oak Ridge Site Specific Advisory Board Monthly Meeting



Wednesday, January 14, 2015

6 p.m., DOE Information Center
1 Science.gov Way
Oak Ridge, Tennessee

The mission of the Oak Ridge Site Specific Advisory Board (ORSSAB) is to provide informed advice and recommendations concerning site specific issues related to the Department of Energy's (DOE's) Environmental Management (EM) Program at the Oak Ridge Reservation. In order to provide unbiased evaluation and recommendations on the cleanup efforts related to the Oak Ridge site, the Board seeks opportunities for input through collaborative dialogue with the communities surrounding the Oak Ridge Reservation, governmental regulators, and other stakeholders.

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AGENDA

PRESENTATION MATERIALS – ETPP Zone 1 Soils Proposed Plan – *to be distributed at meeting*

CALENDARS

1. January
2. February (*draft*)

BOARD MINUTES/RECOMMENDATIONS & MOTIONS

1. October 8, 2014, draft meeting minutes
2. November 12, 2014 draft meeting minutes
3. EM SSAB Recommendation: Initiate Process of Permit Modification for Additional Surface Storage at WIPP
4. Proposed Bylaws Revision to the Process for Approving Recommendations
5. Proposed Bylaws Revision to the Process for Amending ORSSAB Bylaws

REPORTS & MEMOS

1. Recommendation Tracking Chart
2. EM Projects Update
3. Abbreviations/Acronyms for EM Projects Update
4. Travel Opportunities



Oak Ridge Site Specific Advisory Board
Wednesday, January 14, 2015, 6:00 p.m.
DOE Information Center
1 Science.gov Way, Oak Ridge, Tenn.

AGENDA

- I. Welcome and Announcements (D. Hemelright) 6:00–6:05
 - A. Next Meeting: Wednesday, February 11
Presentation Topic: Sufficient Waste Disposal Capacity on the Oak Ridge Reservation
- II. Comments from the Deputy Designated Federal Officer, and the DOE, EPA, and TDEC Liaisons (S. Cange, D. Adler, C. Jones, K. Czartoryski)..... 6:05–6:20
- III. Public Comment Period (C. Rowcliffe)..... 6:20–6:30
- IV. Presentation: East Tennessee Technology Park Zone 1 Soils
Proposed Plan (Wendy Cain)..... 6:30–7:05
Question and Answer Period 7:05–7:20
- BREAK..... 7:20–7:30
- V. Call for Additions/Approval of Agenda 7:30
- VI. Motions 7:30–7:35
 - A. October 8, 2014, Meeting Minutes (L. Hagy)
 - B. November 12, 2014, Work Session Minutes (L. Hagy)
 - C. Chairs Recommendation to Initiate a Process of Permit Modification for Additional Surface Storage at the Waste Isolation Pilot Plant (D. Hemelright)
 - D. First Reading—Amendment to the ORSSAB Bylaws to Change the Procedure for Voting on Recommendations (D. Hemelright)
 - E. First Reading—Amendment to the ORSSAB Bylaws to Change the Procedure for Amending the Bylaws (D. Hemelright)
- VII. Responses to Recommendations & Comments (D. Adler)..... 7:35–7:40
- VIII. Committee Reports..... 7:40–7:50
 - A. Environmental Management/Stewardship (B. Hatcher/C. Staley)
 - B. Executive (J. Lyons)
 - 1. Results of the Poll on Extending Membership Terms Past Six Years
 - 2. Results of the Poll on Replacing Committee Reports with Open Discussion Time
- IX. Federal Coordinator’s Report (M. Noe) 7:50–7:55
- X. Additions to Agenda 7:55–8:00
- XI. Adjourn 8:00



Oak Ridge Site Specific Advisory Board

January 2015

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|-----------|---|-----------|---|---|--|-----------|
| | | | | 1 New Year's Day DOE/Staff holiday | 2 SSAB Support Office closed | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 Monthly SSAB Meeting 6 p.m. | 15 | 16 | 17 |
| 18 | 19 Martin Luther King Birthday DOE/Staff holiday | 20 | 21 Environmental Management & Stewardship Committee 6 p.m. | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 Executive Committee 6 p.m. | 29 | 30 | 31 |

All Meetings will be held at the DOE Information Center, Office of Science and Technical Information, 1Science.gov Way, Oak Ridge unless noted otherwise.

ORSSAB Support Office: (865) 241-4583 or 241-4584 **DOE Information Center:** (865) 241-4780

| Board meetings on cable TV and YouTube | |
|---|---|
| Knoxville: Charter Channel 6, Comcast Channel 12 | Sundays at 1 p.m. |
| Lenoir City: Charter Cable Channel 3 | Wednesdays, 4 p.m. |
| Oak Ridge: Channel 12 | Monday, January 26, 1 p.m. |
| Oak Ridge: Channel 15 | Monday, Wednesday, Friday, 8 a.m. & noon |
| YouTube | http://www.youtube.com/user/ORSSAB |



Oak Ridge Site Specific Advisory Board

February 2015

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|--------|--|---------|---|----------|--------|----------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 Monthly SSAB Meeting 6 p.m | 12 | 13 | 14 |
| 15 | 16 President's Day DOE/Staff Holiday | 17 | 18 Environmental Management & Stewardship Committee 6 p.m. | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 Executive Committee 6 p.m. | 26 | 27 | 28 |

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Many Voices Working for the Community



Oak Ridge Site Specific Advisory Board

Unapproved October 8, 2014, Meeting Minutes

The Oak Ridge Site Specific Advisory Board (ORSSAB) held its monthly meeting on Wednesday, October 8, 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

Noel Berry

Bob Hatcher

David Hemelright, Chair

Jennifer Kasten

Fay Martin

Donald Mei

Greg Paulus

Belinda Price

Wanda Smith

Coralie Staley

Wanfang Zhou

Members Absent

Jimmy Bell

Alfreda Cook

Lisa Hagy, Secretary

Howard Holmes

Jan Lyons, Vice Chair

Mary Smalling

Scott Stout

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)

Susan Cange, Acting Manager for Environmental Management and ORSSAB DDFO

Kristof Czartoryski, Liaison, Tennessee Department of Environment and Conservation (TDEC)

Connie Jones, Liaison, Environmental Protection Agency (EPA) Region 4 (via telephone)

Melyssa Noe, ORSSAB Federal Coordinator, DOE-ORO

Others Present

Aditya Chourey, Student Representative

Spencer Gross, ORSSAB Support Office

Bill McMillan, DOE

Gloria Mei

Claire Rowcliffe, Student Representative

Jeff Selvy, UCOR

Matt Marston, UCOR

Eight members of the public were present.

Liaison Comments

Ms. Cange – Ms. Cange said an event was held earlier in the day to observe the commencement of demolition of the K-31 Building at East Tennessee Technology Park. This is a significant milestone for the EM Program. When K-31 demolition is finished, only K-27 will be left to be razed. K-27 is being prepared for demolition so crews can move to it when finished with K-31.

Mr. Paulus asked if it would have been appropriate to invite members of the board to the event, as well as any future events related to K-27 or the completion of all the demolition work at the site. Ms. Cange agreed it would have been. She said she would talk with the executive officer manages invitation lists to such events and ask that ORSSAB be included on future events.

Ms. Cange proposes to have a ‘meet and greet’ session sometime in the next couple of months with board members and the 10 members of the EM management team. She believes it would be beneficial for board members to talk with the management team in a non-structured, informal setting and have an opportunity to get to know one another better.

Mr. Adler – Mr. Adler said a response is being written on the board’s Recommendation on DOE Oak Ridge Geographical Information System Fact Sheets.

Ms. Jones – no comments.

Mr. Czartoryski – no comments.

Public Comment

None.

Presentation

Mr. McMillan’s presentation was on recent accomplishments and challenges for the EM program at Oak Ridge National Lab (ORNL). The main points of his presentation are in Attachment 1.

He began by saying EM has ongoing facility operations that are being conducted outside of any cleanup work. That includes surveillance and maintenance, liquid gaseous waste operations (LGWO), and the disposition of a quantity of uranium-233 from Building 3019 (Attachment 1, page 2).

Future work at ORNL includes decontamination and decommissioning (D&D) and remedial action activities in Bethel Valley and Melton Valley (Attachment 1, page 2).

Mr. McMillan talked about near-term, mid-term, and long-term projects (Attachment 1, page 3). A near-term, high priority project is disposition of the U-233. In the near-term through 2020, the goal is to complete disposition of that portion of U-233 that can be disposed directly and begin downblending operations for the U-233 that cannot be disposed directly. All disposition of U-233 is to be complete in FY 2024. Groundwater investigations and modeling are part of the near-term portfolio scope at ORNL, as well as the on-going LGWO operations and surveillance and maintenance of facilities.

All building demolition and remediation is scheduled for completion by FY 2045.

The challenge of doing this work is that much of it must be done in the central campus of the lab near current science missions and new laboratory facilities (Attachment 1, page 4). Many of the facilities in the central campus are old and deteriorating and some contain radiological material that requires special handling and packaging.

Mr. McMillan discussed a number of recent accomplishments at the lab.

Process Waste Treatment Complex

About a year ago DOE determined failures of the dual media filters at the complex. Two carbon columns were retrofitted for final filtration of solids. A third carbon column was replaced with Mersorb, which removes mercury more effectively (Attachment 1, page 6). Mr. McMillan said by retrofitting the carbon columns rather than replacing the failed dual media filters DOE saved \$3-\$4 million.

DOE also installed a new sulfuric acid tank, replacing one that had begun leaking.

Planned inspections of stacks

Gaseous waste stacks have not been inspected in 10-15 years. Plans are to use drones, which will hover over the stacks and lower a small camera into each stack to inspect it. Using drones avoids exposing personnel to the hazards of inspecting stacks (Attachment 1, page 7). The hope is to begin the inspections in December.

Molten Salt Reactor Experiment

Routine maintenance is conducted at the reactor site. Defueled salt stored in tanks generates corrosive fluorine gas that must be periodically pumped out and replaced with argon to prevent corrosion (Attachment 1, page 8). The gas is filtered through sodium fluoride traps. Mr. McMillan said the traps are weighed to determine how much uranium has been captured. The amount of uranium captured is low indicating the defueling efforts of the reactor were successful.

Legacy waste

Building 3026 was demolished a few years ago, but the hot cells inside the building were left in place and sealed with fixative. A fixative was also placed on the building pad to prevent runoff of any residual contamination. There has also been continuing characterization and disposition of legacy waste around ORNL including the Molten Salt Reactor and onsite storage facilities (Attachment 1, page 9).

Pratt and Whitney Shield Relocation

The shield was used in experiments during the 1960s. It had been stored in Building 7602 since 1998, but Mr. McMillan said there was enough uranium in the shield that it interfered from a dose perspective with operations in an adjacent facility. In September the shield was relocated to a storage facility in Solid Waste Storage Area 5 in Melton Valley (Attachment 1, page 10).

U-233 Management Progress

Some U-233 is still in storage in Building 3019. It is a special nuclear material that requires a high degree of security. Mr. McMillan said it sets the overall security posture for the lab. Some of the material, the Zero Power Reactor plates, has already been dispositioned for programmatic re-use. Another portion known as Consolidated Edison Uranium Solidification Project material is ready for shipping pending resolution of some issues with the state of Nevada where the material is to be disposed at the Nevada National Security Site. Seventeen canisters of U-233 that have reuse potential have been transferred to the Office of Science. Work is being done to prepare Building 2026 for the downblending and solidification of the remaining inventory of U-233.

Oak Ridge Research Reactor Pool Leak

A leak was detected in September coming from the bottom flange beneath the reactor pool (Attachment 1, page 12). Other leaks have since been detected. UCOR, DOE's prime cleanup contractor is Oak Ridge, is working to locate the source of the leak and develop a long-term plan to stabilize the pool.

Groundwater Strategy

Two activities are underway to implement a groundwater strategy. One is the off-site groundwater assessment to determine if radionuclides are migrating from groundwater on the Oak Ridge Reservation under the Clinch River to privately owned land west of the reservation. The other activity is to develop a model of groundwater flow paths from the reservation (Attachment 12, page 14).

After the presentations a number of questions were asked. Following are abridged questions and answers.

Ms. Price – On the groundwater model, are you developing a conceptual or mathematical model? Is it primarily a physical system model or are you going to be coupling it with solid transport? What's the path forward? Mr. McMillan – It will be a 3D model that looks extensively at depth and length of contaminant movement throughout the region. Ms. Price – What code are you using? Mr. McMillan – It will be using MODFLOW.

Mr. Paulus – The leak at the research reactor is 100 drips a minute. Has that been constant? Mr. McMillan – Since the leak was first observed it's been about the same. We've done some mass balance calculations based on the pool volume and evaporation rates in the building, and while we're seeing 100 drips a minutes, we're losing more than that. We're losing about 100 gallons a day. So there is uncertainty as to where the rest of it is going. We do know that water coming out is collected in the building plumbing systems and it is going for treatment. It's not something that is spreading into the environment. Funding is an issue. UCOR is working the funding estimates. We'll have to work with headquarters to see if there is additional funding that we can obtain for addressing it. Mr. Paulus – You don't have it as a major problem at this point? Mr. McMillan – It's a problem that we need to address. Ms. Cange – Mr. McMillan is right. Our first approach is to see if there is additional funding because this is not something that we planned for and have funding in reserve to use. If there is no additional funding, we have to look within our own funding profiles for all of our various projects. This is something we'll do. We're not going to let this continue. We'll just have to make some difficult decisions about what doesn't get done.

Ms. Staley – How have you determined the 100 gallon loss. Is that water being collected? Mr. McMillan – The leaks we see are falling on the floor in the basement of the building below the pool (Attachment 1, page 12, Sub-pile room). That's the 100 drops a minute we're seeing. Underneath this building is a sump collection system and an underground stream that's surfacing into this sump collection system, which may or not be part of the 100 gallons. We shut off all the water to the pool and monitored the pool level for several days. We did a beaker test to measure evaporation. The difference in the pool volume was ratioed against the beaker test. The 100 gallons a day is the difference between what we account for between the pool level and the evaporation rate. We're not sure where those 100 gallons are going. But the pool is centrally located in the building with the spring underneath. I don't believe it's going outside of the spring. Mr. Selvy – The pool is sitting on about 5-6 feet of concrete. Within that concrete there are experimental facilities behind shield walls that we can't get to. There are floor drains in there and the drains go to a manhole to the LGWO. We know there is flow in those drains. We know the vicinity of the leak, and we know it's between the basement and the first floor. We can't see it, but there is 5 feet of concrete there we can't get through. So we think the water is going to the LGWO.

Mr. Hemelright – What is the ultimate disposition of the 3042 Reactor pool going to be? Mr. McMillan – It will end up being demolished. The materials we have a pictures of (Attachment 1, page 12, shields and plate) would be removed from the pool and disposed at an appropriate facility. Then we'd drain the pool. Ultimately the building would be demolished in the 2030s. Mr. Paulus – The presentation has a slide that says there is a leak of 100 drips a minute. But you also say you're

losing 100 gallons a day you can't account for. When you talk about it, be open. It's a little deceptive the way you presented it.

Mr. Hatcher – What is the level of contamination of the water that is coming out? Mr. McMillan – There is a little bit of tritium in the water; that's how we can trace it back to the pool. That's the only contaminant. Ms. Price – Can you provide us with information about what the tritium levels are? Mr. McMillan – Yes.

Mr. Hatcher – What is the role of the sulfuric acid in the Process Waste Treatment Complex? Mr. McMillan – Sulfuric acid is used to adjust the pH in the precipitation process for treating the waste water.

Ms. Smith – Where is the stream you mentioned coming from and going to? Mr. McMillan – ORNL has springs all over. This one is going right under the building. This stream is being collected in the building sump and being pumped to LGWO. The spring doesn't surface anywhere; it is being sent for treatment.

Mr. Zhou – I know you're looking at completing a record of decision (ROD) for groundwater. Now you're doing the groundwater modeling. Will that be part of the ROD or are you still characterizing? Mr. McMillan – The model will be used to help us make decisions on the prioritization of which plumes we need to address; which ones are the worst and have the potential to migrate off-site. That will help prioritize what plumes to tackle first. Once we complete remedial actions, if there is a plume we can't address completely, the model will help us make decisions to support the ROD as well. Mr. Zhou – Has the remedial investigation been finished? Mr. McMillan – Not yet. There was an interim ROD on groundwater completed about 10 years ago that led to early actions for cleaning remedial sites in Melton Valley. The interim ROD allowed us to do the early actions. After we complete future remedial actions we'll need to go through another round of decision-making on remediation of groundwater in the future with another final ROD.

Ms. Mei – There was a presentation about three years ago on U-233 and there being a Stage I and Stage II evaluation. Have those evaluations been followed? Mr. McMillan – Those evaluations supported the decision that allowed us to go forward with the disposition campaign for about half of the inventory and the use of Building 2026 for the processing campaign. Ms. Mei – Will that be a major modification to Building 2026 to do the downblending and solidification? Mr. McMillan – There is some work being done now. There is a HEPA filter change out, an upgrade of the ventilation system to update the control panel, the fire protection control panel is being upgraded, cleanout of the legacy material out of the hot cells is being finished. There was some laboratory space that had residual waste that is being cleaned out. The actual modifications required for the processing campaign are pretty minor. The doors on the back of the hot cells have to be modified to allow the material to be moved in, but no major modifications. That was the beauty of that facility in that it was pretty well ready to do the campaign.

Committee Reports

Budget & Process – Mr. Paulus said the committee approved its work plan for FY 2015 at the September 24 meeting and committee chair and vice chair were elected, Mr. Paulus and Ms. Price respectively.

The committee had a brief discussion about how the annual meeting and the board meetings are conducted.

Mr. Paulus said the committee will now meet only four times a year. The next meeting will be in March 2015.

EM & Stewardship – Mr. Hatcher reported that the committee received a briefing on the groundwater strategy program from Dan Goode, U.S. Geological Survey, who is acting as a liaison for the board in the groundwater strategy discussions. Mr. Hatcher encouraged members to read the minutes of the committee, which contain more details of the groundwater strategy program.

The committee elected officers for FY 2015. They will remain Mr. Hatcher and Ms. Staley as co-chairs.

The committee will meet on October 15 at 6 p.m. and have a follow on discussion to this meeting's briefing on EM activities at ORNL and develop its FY 2015 work plan.

Public Outreach – Mr. Hemelright said there was discussion at the last committee meeting about the committee's future. Since participation in the committee has fallen off there is a possibility the committee functions will be rolled into the Executive Committee.

Re-working of the ORSSAB exhibit at the American Museum of Science and Energy had been on hold pending discussions about the future of the museum. It was suggested to resume work on the exhibit so it is ready to go regardless of the museum's future.

The committee will meet by teleconference on Tuesday, October 21.

Executive – Mr. Hemelright said the committee is considering taking board meetings to sites around the reservation where EM work is being done. An example could have been this meeting's presentation where the board could have gone to the various sites Mr. McMillan discussed. The intent is to get board members more involved by actually seeing where work is done. Another possibility is going to Zone 1 of East Tennessee Technology Park where a ROD will be done on soils and to Y-12 National Security Complex to see areas affected by mercury.

Mr. Hemelright reiterated Ms. Cange's idea of having an informal get together with project directors to get to know them better and understand their responsibilities.

Another idea for a board meeting is a facilitated open topic, round robin discussion of various EM-related issues.

Mr. Paulus said if meetings are taken to different sites, board members should provide input on the best days and times to do that since evening field trips might not be feasible.

The next committee meeting will be October 22 at 6 p.m.

Mr. Hemelright attended the recent Fall EM SSAB Chairs' meeting, along with Ms. Staley, in Idaho. He commended Mr. Adler for his openness in sharing budget information with board. He said other boards do not receive budget briefings as does ORSSAB.

Mr. Hemelright said that Mark Whitney, the Acting Assistant Secretary for EM, talked about the challenges across the DOE EM complex. The primary challenge will be funding. Mr. Whitney predicted flat funding of about \$5.6 billion across the complex for the next several years. Mr. Whitney spoke how the shutdown of the Waste Isolation Pilot Plant (WIPP) affects all of the sites that send transuranic waste to the plant. The plant is expected to reopen in about 18 months.

Mr. Whitney said while there are challenges, DOE EM needs to celebrate its successes. This is the 25th year of the EM program. The EM footprint has been reduced about 90 percent during that time. A priority of EM is to keep the SSABs and the public engaged in EM's work to complete cleanup across the complex.

Also at the chairs' meeting, Frank Marcinowski, Deputy Principal Assistant Secretary for Waste Management, provided more detail about the WIPP closure and what is being done to reopen the plant. Mr. Hemelright asked if above ground space could be made available at WIPP so feeder sites could continue to send waste. Mr. Marcinowski said that is being considered. The chairs of the SSABs later agreed to a draft recommendation to that effect. The recommendation will be placed before the individual boards for approval.

David Borak, the EM SSAB Designated Federal Officer, said a review of all the boards, after 20 years of operations, indicated that their roles were vital to the successes of the EM program.

Announcements and Other Board Business

ORSSAB's next scheduled meeting will be Wednesday, November 12, 2014, at the DOE Information Center. The topic is to be determined.

The minutes of the September 10, 2014, meeting were approved.

Lacking a quorum to approve recommendations, the board did not act on the EM SSAB Chairs' Recommendation to Initiate a Process of Permit Modification for Additional Surface Storage at the WIPP.

Federal Coordinator Report

Ms. Noe said a new membership drive is about to get underway. She asked that if current members know of people who might be interested in joining the board to let her or staff know. She said new membership packages to DOE Headquarters have to be submitted February 2. Applications to the board can be accepted through November.

Additions to the Agenda

None.

Motions

10/8/14.1

Mr. Paulus moved to approve the minutes of the September 10, 2014, meeting. Ms. Smith seconded and the motion passed **unanimously**.

The meeting adjourned at 7:23 p.m.

Action items

1. The idea of non-board members staffing exhibits will be discussed at an Executive Committee meeting. **Completed 10/1/14**. The Executive Committee decided that it doesn't seem right to have staff talking for the board at outreach events.
2. Mr. McMillan will get information on tritium levels in water leaking from the Research Reactor pool.

Attachments (1) to these minutes are available on request from the ORSSAB support office.

I certify that these minutes are an accurate account of the October 8, 2014, meeting of the Oak Ridge Site Specific Advisory Board.

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

DATE

Many Voices Working for the Community



Oak Ridge Site Specific Advisory Board

Unapproved November 12, 2014 Minutes

The Oak Ridge Site Specific Advisory Board (ORSSAB) held a work session on Wednesday, November 12, 2014, at Olive Garden Restaurant, 7206 Kingston Pike, Knoxville, Tenn., beginning at 6 p.m.

Members Present

Jimmy Bell
Noel Berry
Alfreda Cook
Lisa Hagy, Secretary
Bob Hatcher
David Hemelright, Chair

Jennifer Kasten
Jan Lyons, Vice Chair
Fay Martin
Donald Mei
Greg Paulus
Belinda Price

Mary Smalling
Coralie Staley
Scott Stout

Members Absent

Howard Holmes
Wanda Smith
Wanfang Zhou

Liaisons, Deputy Designated Federal Officer, and Federal Coordinator Present

Susan Cange, Acting Manager for Environmental Management (EM) and ORSSAB Deputy Designated Federal Officer

Melyssa Noe, ORSSAB Federal Coordinator, Department of Energy – Oak Ridge Office (DOE-ORO)

Others Present

Jenny Freeman, facilitator
Spencer Gross, ORSSAB Support Office
Pete Osborne, ORSSAB Support Office

Four members of the public were present.

Facilitated Discussion on Board Processes

The purpose of this meeting was an open, facilitated discussion about ways to improve how the board meetings are conducted, how to increase board member participation, and how to improve membership diversity through recruitment.

Four principal topics were discussed:

- Membership
- Voting
- Frequency of meetings

- Format of meetings

Membership

Facilitator Freeman asked if there are enough members for the board to function optimally. The board can have as many as 22 members; current membership is 18.

Mr. Hemelright said under the current bylaws for voting on recommendations it has been difficult in recent months to have enough members at a meeting to vote on recommendations.

Ms. Cange said another challenge has been eliciting interest in enough people to apply for membership. Ms. Cook said it would be helpful for members to know what the requirements are for membership so they can talk to others about applying. Ms. Noe said candidates cannot be DOE employees or employees of DOE contractors. Retirees from DOE or contractors are OK.

Ms. Cange noted that DOE wants to have a diverse mix of people on the board regarding education, backgrounds, geographic representation, ethnicity, and gender.

Mr. Paulus said he thought former member David Martin was as an enthusiastic member, but was term-limited. He asked about re-instating former members who were term-limited. Ms. Cange said the topic was discussed at a recent DOE field managers meeting, and she also talked with DOE Headquarters personnel at the Spring EM SSAB Chairs' meeting in Idaho. She said they didn't embrace the idea whole-heartedly, but there is a possibility of exemptions, such as when there is difficulty in fulfilling an ethnicity.

Mr. Paulus asked if other boards have problems with membership. Ms. Noe said she didn't know, but exemptions have to be done on a case-by-case basis, and DOE Oak Ridge EM was willing to try that if necessary. She said there is a recruitment campaign underway and Hispanic communities and colleges are targeted as well as communities impacted by past or current EM issues.

Mr. Berry said when he first applied he was denied membership. Considering the numbers of blacks on the board he wondered why he had been turned down initially. Ms. Noe said she wasn't Federal Coordinator at the time, but there had been a concern of too many members with advanced degrees, and DOE wants a wide range of educational backgrounds. Mr. Berry asked if statistics are available to show what categories are needed. Ms. Noe there is a matrix that shows experience, education, ethnicity, gender, and geographic location.

Ms. Cook said when she applied the only reason she knew about the board was through her work. She didn't think most people in the community knew about the board. She asked if there was a succinct description of what the board does and what it has accomplished.

Ms. Price said the board needs more public relations and advertising, and the board needs to determine its audience and how to reach it. She asked what organizations are targeted. Ms. Noe said letters are sent every year to professional organizations and public officials. About 250 letters were sent resulting in only four responses. Ms. Kasten said she received an email from the American Nuclear Society.

Ms. Freeman asked again if 22 members are enough. Mr. Paulus said 15 of the 18 members were at this meeting. He said DOE should try to get the membership back to 22 and hope for an average attendance of 18.

Ms. Freeman agreed with Paulus to get four more members on the board, but she encouraged the members present to help recruit. She said a thumbnail sketch of the board would be helpful as a recruitment tool.

Voting

Ms. Freeman asked if the bylaws should be changed to make it easier to pass recommendations.

Currently a quorum to vote on a recommendation is three-quarters of members present, and two-thirds of those present, with a minimum of a simple majority of the total membership, must vote to approve a recommendation. For example, with a board membership of 18, 14 must be present to vote on a recommendation. Of the 14, two-thirds, or 10, must vote for a recommendation to approve it. Ten is also a majority of board membership of 18 members.

Mr. Hemelright said members are advised in advance of meetings when a recommendation is on the agenda, but in recent months it has been difficult to get the proper number of members in attendance.

Ms. Lyons asked if voting could be done absentee. Mr. Osborne said provision for absentee voting is not in the bylaws, and anything not in the bylaws defaults to Robert's Rules of Order, which states a basic tenet of voting is to be present.

Ms. Staley said there is already an issue with attendance and allowing absentee voting could make the situation worse.

Mr. Berry said perhaps recommendations should be scheduled for a certain month or months so members would know it is important for them to be present.

Ms. Cook said since there is an issue of participation she asked what could be done to improve attendance. Ms. Martin asked if there isn't a rule about missing two or more meetings in a row. Ms. Noe said if a member has two consecutive absences, it is placed on the next agenda, and the board could potentially ask DOE to remove a member for non-participation. But members usually come to the third meeting or they have good reasons for missing (illness, work related, etc.). Mr. Hemelright said since this is a volunteer board it would be problematic for DOE to remove members for non-attendance.

Ms. Freeman returned the discussion to the number needed for a quorum. She said there are two options:

1. Reduce the number needed for a quorum
2. Revise the bylaws to allow absentee voting.

Ms. Cange suggested a quorum could be one half of the membership plus one.

Mr. Paulus suggested a quorum of two-thirds of members present on any vote.

Ms. Cange suggested the Executive Committee should discuss the ideas presented at this meeting and make a recommendation to the full board on changing the bylaws.

Frequency of meetings

Ms. Freeman asked if the board should continue to plan for 10 meetings a year.

Ms. Staley thought 10 meetings was a good number since sometimes a meeting is cancelled because of inclement weather. Mr. Osborne noted the board doesn't usually meet in December and July is a new member training meeting.

Ms. Lyons thought every other month was sufficient since the EM & Stewardship Committee meets every month.

Ms. Hagy said the board has a lot of work to do for an every other month schedule, and it would also make for longer meetings. Ms. Staley agreed and said the EM & Stewardship Committee talks about things that should be discussed at board meetings and two months is a long time to wait to bring those discussions to the board. Mr. Hatcher agreed with staying with 10 meetings.

Ms. Noe asked when scheduling topics if they should be evaluated as important enough for board consideration. The proposed topics for FY 2015 are:

- Zone 1 Soils Proposed Plan and Record of Decision for East Tennessee Technology Park
- Sufficient Waste Disposal Capacity for the Oak Ridge Reservation
- DOE EM Budget and Prioritization
- Mercury Cleanup at Y-12 National Security Complex
- Selection of a Remediation Strategy for Trench 13 in Melton Valley
- Groundwater Strategic Plan for the Oak Ridge Reservation

Ms. Staley said most of the topics are related to the EM & Stewardship Committee, but she said it was important for all board members to understand them, especially stewardship. She thought all of the topics were important.

Ms. Lyons said not all of the topics are of interest to everyone, which would affect attendance. Ms. Price said sometimes people don't attend, not because they are not interested, but because they have other things to do.

Ms. Noe said one of the things that's being done is to schedule field trips and tours, which might be of greater interest than listening to presentations. Ms. Cange agreed that tours, meetings with project managers, and other activities will be tried and then evaluated at the annual meeting to consider changes. Mr. Hemelright mentioned there has been discussion about changing the annual meeting from August to September or October.

The general agreement was to stay with the planned topics and activities and schedule 10 meetings a year.

Format of meetings

Ms. Freeman asked if there were any suggestions for changing the way the board meetings are conducted.

Mr. Hemelright asked if the presence of television cameras recording the meeting was intimidating and preventing members from asking questions or participating in discussions.

There was no comment noted about the cameras being a hindrance. Mr. Hemelright suggested the cameras could be turned off after the break.

Ms. Cook said she didn't think the lack of questions was a function of cameras being present, but because information presented is new and people haven't had an opportunity to digest the information and formulate questions. Mr. Hatcher asked how people can be better prepared for asking questions. Ms. Noe said that is one of the reasons for having tours and field trips so they can have a briefing ahead of time.

Ms. Price asked if there is a problem of tours not being open to the public. Ms. Noe said since tours are not board meetings there should not be a problem. Ms. Cange said the tours are for board members to have a better understanding of the topics they are considering and to open the tours to public would change the focus of the tour.

Conclusion

With the discussion of all the points concluded, Ms. Cange thanked everyone for coming and providing ideas for consideration. She said she was excited by having this type of discussion and developing ways for the board to make more informed decisions.

Ms. Cange said in Spring 2014 DOE hosted an interactive community workshop on DOE's budget and project prioritization. From that workshop DOE indentified some themes to reach out to the community. One of those was on contracting and subcontracting practices. The East Tennessee Environmental Business Alliance has been working with DOE on ideas about procurement and acquisitions practices.

Another is what happens after cleanup is completed. What areas of the reservation will undergo reindustrialization? DOE will be working closely with the Community Reuse Organization of East Tennessee in that area.

A third area is the DOE Oak Ridge EM budget and prioritization of work. While that information is presented to the public each year, DOE is working to make feedback more meaningful for DOE and ORSSAB. She wants the board to work more on prioritization and work activities.

Public Comment

None.

Announcements and Other Board Business

ORSSAB's next scheduled meeting will be Wednesday, January 14, 2015 at the DOE Information Center. The ETTP Zone 1 proposed plan is the topic of discussion.

Additions to the Agenda

None.

The meeting adjourned at 7:56 p.m.

Action items

1. Mr. McMillan will get information on tritium levels in water leaking from the Research Reactor pool. *From the October 8, 2014 meeting.*

I certify that these minutes are an accurate account of the November 12, 2014, meeting of the Oak Ridge Site Specific Advisory Board.

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

DATE

EM SSAB Chairs Meeting
Idaho Falls, Idaho
Draft Chairs Recommendation
September 17-18, 2014

Initiate Process of Permit Modification for Additional Surface Storage at WIPP

Background

The Waste Isolation Pilot Plant (WIPP) has been operating since 1999 as the only underground repository for transuranic (TRU) waste disposal. Having the WIPP facility available for TRU waste disposal has been shown to be extremely important to the Department of Energy (DOE) as well as sites across the United States needing to safely and reliably dispose of TRU waste. WIPP operations on a continuing basis are critical to the success of the DOE Office of Environmental Management's (EM) waste disposal mission.

Observations and Comments

With the recent shutdown of WIPP, DOE efforts to complete programs for the shipment of TRU waste from sites needing this method of waste disposal have been jeopardized. The shutdown of WIPP has rendered these sites unable to complete commitments due to respective state consent orders or regulatory requirements. Planning for future shipments to WIPP is also now on hold with no effective time table of when shipments may be able to resume.

Building of additional TRU waste storage facilities at the various generator sites with limited lifetime expectancies is neither efficient nor cost effective. It would be wise to not duplicate the permitting process at multiple sites and concentrate on one site that can truly facilitate permanent long-term disposal of TRU waste.

Reestablishing the current means and methods of TRU waste transport from sites would maintain the present available transport system readiness, keep personnel training levels and maintain effective use of present facilities. An additional consideration to transporting waste as soon as feasible is that transportation costs will likely rise significantly in the ensuing years.

Recommendation

Due to the serious problems that the shutdown of the WIPP has caused the various DOE facilities that must ship TRU waste, the Environmental Management Site-Specific Advisory Board recommends that DOE-EM Headquarters should immediately prepare to expand the above-ground TRU waste interim storage installation at WIPP so that EM sites can proceed with TRU waste shipments even before the underground WIPP disposal operation is approved for reopening.

Proposed Revision to the Process for Approving Recommendations

Current wording:

VI. DECISION MAKING

B. Approval of Recommendations: For the purpose of approving recommendations, a quorum shall be three-quarters of the current voting membership of the Board. To approve recommendations (and/or advice) to be submitted to DOE, two-thirds of those members present must vote in favor of the recommendation and this number must equate to no less than the simple majority of the current voting membership.

Proposed revision:

VI. DECISION MAKING

B. Approval of Recommendations: Recommendations shall be approved by majority vote of the entire Board membership.

Current wording:

VI. DECISION MAKING

D. Bylaws Amendments: These Bylaws may be amended at any regular meeting of the Board by a **two-thirds vote of the current voting membership**, provided that the proposed amendment was submitted in writing and read at a previous regular business meeting. (Also see Section XII.)

Proposed revision:

VI. DECISION MAKING

D. Bylaws Amendments: These Bylaws may be amended at any regular meeting of the Board by a **majority vote of the entire Board membership**, provided that the proposed amendment was submitted in writing and read at a previous regular business meeting. (Also see Section XII.)

Current wording:

XII. AMENDING THE BYLAWS

A. Policy: The Board shall have the power to alter, amend, and repeal these bylaws in ways consistent with the Amended Charter of the EM Site Specific Advisory Board, and other applicable laws, regulations and guidelines. Any member of the public, the Board, or one of the Agencies may propose an amendment. However, to be considered by this Board the proposed amendment must be sponsored by a Board member. The bylaws may be amended at any regular meeting of the Board by a **two-thirds vote of the entire Board membership**, provided that the proposed amendment was submitted in writing and read at a previous regular business meeting.

Proposed revision:

XII. AMENDING THE BYLAWS

A. Policy: The Board shall have the power to alter, amend, and repeal these bylaws in ways consistent with the Amended Charter of the EM Site Specific Advisory Board, and other applicable laws, regulations and guidelines. Any member of the public, the Board, or one of the Agencies may propose an amendment. However, to be considered by this Board the proposed amendment must be sponsored by a Board member. The bylaws may be amended at any regular meeting of the Board by a **majority vote of the entire Board membership**, provided that the proposed amendment was submitted in writing and read at a previous regular business meeting.

EM Project Update

| ETTP | November | December |
|----------------------|---|--|
| Zone 1 ROD | The D2 version of the Zone 1 Final Soils Proposed Plan was submitted to the regulators for review. | Received comments from TDEC on the D2 version of the Zone 1 Final Soils Proposed Plan. |
| K-25/K-27 D&D | Intrusive sampling is now complete. Foaming of the process gas piping and equipment is 26 percent complete. Draining and inspecting process gas greater than 3-inches in diameter is 95 percent complete. | K-27 deactivation is 53 percent complete. Foaming of the process gas piping and equipment is 30 percent complete. |
| | Provided a tour of the K-27 and K-31 facilities to EPA, Region 6. | The Office of Acquisition and Project Management conducted on-site activities for the K-27 Independent Cost Estimate review. The K-27 External Independent Review is scheduled for January. |
| | The Waste Handling Plan for Process Equipment and Piping was submitted to the regulators for review. | The Removal Action Work Plan for K-27 was submitted to the regulators. |
| | The Addendum to the K-27 Building Structure Waste Handling Plan was approved by the regulators. | |
| K-31 Demolition | Overall demolition is 20 percent complete. Demolition debris disposal is 10 percent complete. Laboratory data supports a lower volume weighted sum of fractions for disposal at EMWMF. | Overall demolition is 22 percent complete. Demolition debris disposal is 16 percent complete. |
| | The Addendum to the K-31 Building Structure Waste Handling Plan, Part 2 was approved by the regulators. | Laboratory data from concrete and steel samples was received and will be submitted to the regulators. |
| K-892 Deactivation | | The deactivation is 57 percent complete. Exterior transite removal, unbolting of interior equipment, grouting of recirculant coolant water (RCW) line, and removal of all universal hazardous waste is complete. |
| | | Abatement and removal of electric cabinet asbestos is 75 percent complete. RCW pipe cutting is 10 percent complete. |
| Remaining Facilities | | The FY 2014 PCCRs for both Low Risk/Low Complexity Facilities and the Predominantly Uncontaminated Facilities were submitted to the regulators for review. |
| ORNL | November | December |
| U-233 Disposition | A project overview and tour of the facilities was provided to the Defense Nuclear Facilities Safety Board. A proposal was submitted for replacing two aging back-up diesel generators. Technical evaluation of the proposal is in progress. | A review was completed and approved on the contractor's Technical Security Counter Measures Plan. |
| | An independent review was conducted of the scenarios to be used in the upcoming safeguards and security modeling effort. | A proposal was submitted for replacement of hand-held and walk-through explosive detector systems. Technical evaluation of the proposal is in progress. |
| | | Completed upgrades to the 3019 Complex Closed Circuit Television. |

EM Project Update

| ORNL | November | December |
|---------------------------------------|---|--|
| Molten Salt Reactor Experiment (MSRE) | Completed pumpdown of the fuel and flush salt tanks. Proceeding with upgrades to the Reactive Gas Removal System. | |
| | The FY 2014 PCCR for Secondary Low Level Waste was submitted to the regulators for review. | |
| Y-12 Site | November | December |
| Y-12 Mercury Abatement Phase I ROD | Comments were received on the Focused Feasibility Study/Proposed Plan that would amend the existing Record of Decision to include the mercury treatment facility. The Environmental Policy Council is working to resolve issues raised by the comments. | |
| Off-Site Cleanup/Waste Management | November | December |
| TRU Waste Processing Center (TWPC) | | A team from Carlsbad Field Office conducted a Technical Assessment for Transuranic Waste Generator Sites. The team focused on activities at TWPC and generators at ORNL and URS/CH2M Oak Ridge LLC. |
| EMWMF | Installation of monitoring wells is complete. Installation of flumes and water monitoring equipment is underway. | |
| EMDF | Completed installation of flumes and the final water monitoring equipment is being installed. | |
| LEFPC Mercury Uptake Study | The Sampling and Analysis Plan was submitted to the regulators for review. | |
| WRRP | The ETPP Watershed RAR Comprehensive Monitoring Plan and the Bear Creek Valley Watershed RAR Comprehensive Monitoring Plan were approved by the regulators. | |
| ORR Groundwater Strategy | Property visits were conducted to determine suitability of off-site locations for sampling and to support obtaining access agreements. | Meeting was held with TDEC and Tennessee Dept. of Health to discuss sampling and analysis methodologies and to coordinate plans for co-sampling activities. |
| | Work continued on a test case groundwater flow model. | The Remedial Site Evaluation Work Plan Erratum was submitted to the regulators for review. |
| | | Outreach efforts continue with property owners to evaluate the suitability of well taps/faucets for sampling and to secure license agreements. To date, 49 field visits have been conducted and 19 property owners have signed license agreements. |

Abbreviations/Acronyms List for Environmental Management Project Update

AM – action memorandum

ARRA – American Recovery and Reinvestment Act

BCV – Bear Creek Valley

BG – burial grounds

BV- Bethel Valley

CARAR – Capacity Assurance Remedial Action Report

CBFO – Carlsbad Field Office

CERCLA – Comprehensive Environmental Response, Compensation
and Liability Act

CEUSP – Consolidated Edison Uranium Solidification Project

CD – critical decision

CH – contact handled

CNF – Central Neutralization Facility

CS – construction start

CY – calendar year

D&D – decontamination and decommissioning

DOE – Department of Energy

DSA – documented safety analysis

DQO – data quality objective

EE/CA – engineering evaluation/cost analysis

EM – environmental management

EMDF – Environmental Management Disposal Facility

EMWMF – Environmental Management Waste Management Facility

EPA – Environmental Protection Agency

ETTP – East Tennessee Technology Park

EU – exposure unit

EV – earned value

FFA – Federal Facility Agreement

FFS – Focused Feasibility Study

FPD – federal project director

FY – fiscal year

GIS – geographical information system

GW – groundwater

GWTS –groundwater treatability study

IROD – Interim Record of Decision

LEFPC – Lower East Fork Poplar Creek

LLW – low-level waste

MLLW – mixed low-level waste

MSRE – Molten Salt Reactor Experiment

MV – Melton Valley

NaF – sodium fluoride

NDA – non-destructive assay

NEPA – National Environmental Policy Act

NPL – National Priorities List

NNSS – Nevada National Security Site (new name of Nevada Test Site)

NTS – Nevada Test Site

OREM – Oak Ridge Office of Environmental Management

ORNL – Oak Ridge National Laboratory

ORO – Oak Ridge Office

ORR – Oak Ridge Reservation

ORRS – operational readiness reviews

PaR – trade name of remote manipulator at the Transuranic Waste Processing Center

PCB - polychlorinated biphenyls

PCCR – Phased Construction Completion Report

PM – project manager

PP – Proposed Plan

PPE – Personal Protective Equipment

QAPP – Quality Assurance Project Plan

RA – remedial action

RAR – Remedial Action Report

RAWP – Remedial Action Work Plan

RCRA – Resource Conservation Recovery Act

RDR – Remedial Design Report

RDWP – Remedial Design Work Plan

RER – Remediation Effectiveness Report

RH – remote handled

RI/FS – Remedial Investigation/Feasibility Study

RIWP – Remedial Investigation Work Plan

RmAR – Removal Action Report

RmAWP – Removal Action Work Plan

ROD – Record of Decision

RUBB – trade name of a temporary, fabric covered enclosure

S&M – surveillance and maintenance

SAP – sampling analysis plan

SEC – Safety and Ecology Corp.

SEP – supplemental environmental project

STP – site treatment plan

SW – surface water

SWSA – solid waste storage area

Tc – technetium

TC – time critical

TDEC – Tennessee Department of Environment and Conservation

TRU – transuranic

TSCA – Toxic Substances Control Act

TWPC – Transuranic Waste Processing Center

U – uranium

UEFPC – Upper East Fork Poplar Creek

VOC – volatile organic compound

WAC – waste acceptance criteria

WEMA – West End Mercury Area (at Y-12)

WHP – Waste Handling Plan

WIPP – Waste Isolation Pilot Plant

WRRP – Water Resources Restoration Program

WWSY – White Wing Scrap Yard

Y-12 – Y-12 National Security Complex

ZPR – Zero Power Reactor

Recommendation Response Tracking Chart for FY 2014

| | Date | To | Recommendation | Originating Committee | Response Date | Response Status | Committee Review of Response |
|----|---------|---|---|--|---------------|---|------------------------------|
| 1. | 5/14/14 | Susan Cange, Acting Manager for Oak Ridge EM | Recommendation 222: Recommendations on Additional Off-site Groundwater Migration Studies | EM & Stewardship | 8/5/14 | Partial: DOE did not address recommendation point of reviewing existing monitoring well network. DOE will address that omission. | |
| 2. | 5/14/14 | Susan Cange, Acting Manager for Oak Ridge EM | Recommendation 223: Recommendations on Additional Waste Disposal Capacity on the Oak Ridge Reservation | EM & Stewardship | 7/28/14 | Complete: DOE addressed all points of the recommendation. | Committee accepted response. |
| 3. | 5/14/14 | Susan Cange, Acting Manager for Oak Ridge EM | Recommendation 224: Recommendation on Fiscal Year 2016 DOE Oak Ridge Environmental Management Budget Request | EM & Stewardship and Budget & Process | 6/17/14 | Complete: DOE Oak Ridge EM submitted the recommendation to DOE HQ along with its budget request for FY 2016. | |
| 4. | 9/10/14 | Susan Cange, Acting Manager for Oak Ridge EM | Recommendation 225: Recommendation on DOE GIS Fact Sheets | EM & Stewardship | 10/28/14 | Complete: DOE accepted the recommendation and will update GIS Fact Sheets as requested | |

Travel Opportunities

| Meeting/Event | Dates | Location | Reg. Cost | Website | Conference Lock Date; # Allocated Attendees | Deadline to Submit Requests |
|---|---|---|-----------|--|---|-----------------------------|
| FY 2015 | | | | | | |
| Waste Management Symposium (Attendees: Smalling, Price) | March 15-19, 2015 (Early registration ends 12/31/14) | Phoenix | \$995 | www.wmsym.org | 11/1/14 (# attendees 1) | 10/22/14 |
| Spring Chairs Meeting (Pending requests: C. Staley) | April 21-23, 2015 | Augusta, GA | none | | N/A | 2/25/15 |
| Intergovernmental Meeting with DOE (Pending requests: ___) | TBD | TBD | none | | | |
| National Environmental Justice Conference & Training (Pending requests: ___) | TBD | Washington, D.C. | none | http://thenejc.org | | |
| Ohio EPA National Brownfields Conference (Pending requests: ___) | TBD | Columbus, Ohio | | | | |
| RadWaste Summit (Pending requests: ___) | TBD | Summerlin, Nevada | 525 | http://radwastesummit.com/ | | |
| 2015 U.S. EPA Community Involvement Training Conference (Pending requests: ___) | TBD (late summer 2015) | Atlanta, GA | | www.epa.gov/ciconference | | |
| Fall Chairs Meeting (Pending requests: ___) | TBD | Santa Fe, NM | none | | N/A | |
| Western Waste Site Tour (Tentative requests: DeLong, Hagy, Hatcher, Lyons, Mei, Paulus, Price, Smalling) | Postponed pending resolution of issues at WIPP | Waste Isolation Pilot Plant, Nevada Nat'l Security Site | none | none | | |
| Perma-Fix Nuclear Waste Management Forum (Pending requests: ___) | Transitioned to a bi-annual event. Next meeting is slated for FY 2016 (December 2015) | Nashville | \$500 | | | |

Shading indicates closed trips