Oak Ridge Site Specific Advisory Board Monthly Meeting



Wednesday, November 9, 2016, 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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- 1. November
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BOARD MINUTES/RECOMMENDATIONS & MOTIONS

1. October 12, 2016, unapproved meeting minutes

REPORTS & MEMOS

- 1. EM Project Update
- 2. Travel Opportunities for FY 2017
- 3. Waste Definitions Table

AGENDA



Oak Ridge Site Specific Advisory Board Wednesday, November 9, 2016, 6:00 p.m. DOE Information Center 1 Science.gov Way, Oak Ridge, Tenn. 37831

AGENDA

I.	 Welcome and Announcements (B. Price)
II.	Comments from the Deputy Designated Federal Officer, and EPA and TDEC Liaisons (J. Mullis, C. Jones, K. Czartoryski)
III.	Public Comment Period (G. McAllister)
IV.	Presentation: Excess Contaminated Facilities (Bill McMillan, Brian Henry) (Issue Group Members: Beatty, Ford, Gonzalez, Thomas, Wilson)
V.	Call for Additions/Approval of Agenda (B. Price)7:05
VI.	 Motions
VII.	Responses to Recommendations & Alternate DDFO's Report (M. Noe)
VIII	. Committee Reports
IX.	Additions to Agenda & Open Discussion
X.	Adjourn7:30

PRESENTATION MATERIALS

Presentation to be distributed at or prior to meeting

CALENDARS

	Oak Ridge Site Specific Advisory Board November 2016						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
		1	2 Executive Committee Meeting 6:00-7:00 p.m.	3	4	5	
6	7	8	9 ORSSAB Monthly Meeting 6:00-7:30 p.m.	10	11 Veteran's Day Staff Holiday	12	
13	14	15	16	17	18	19	
20	21	22	23	24 Thanksgiving Staff Holiday	25	26	
27	28	29	30 EM & Stewardship Committee Meeting 6:00- 7:30 p.m.				

All meetings will be held at the DOE Information Center unless noted otherwise.ORSSAB Support Office: (865) 241-4583 or 241-4584DOE Information Center: (865) 241-4780ORSSAB Conference Call Line: (866) 659-1011; enter the participant code when prompted: 3634371#

Board meetings on cable TV and YouTube					
Knoxville: Charter Channel 6, Comcast Channel 12 Sundays at 9 a.m.					
Lenoir City: Charter Cable Channel 193	Wednesdays, 4 p.m.				
Oak Ridge: Channel 12	Monday, November 28, 7 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 December 2016

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5	6	7 No Executive Committee Meeting*	8	9	10
11	12	13	14 No ORSSAB Monthly Meeting*	15	16	17
18	19	20	21	22	23	24
25 Christmas Day	26 Christmas Holiday Staff Holiday	27	28 No EM & Stewardship Committee Meeting*	29	30	31

*Due to seasonal holidays, ORSSAB will not hold meetings in December 2016. Regular board and committee meetings will resume in January 2017.

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YouTube	http://www.youtube.com/user/ORSSAB				

FY 2017 ORSSAB Work Plan/Schedule

Executive meeting Monthly meeting	Site tour	EM/Stewardship meeting
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Date	Event	Торіс	Presenter	Issue Group	Location
		OCTOBER 2016			
Wed., 10/5	Executive	General business			DOEIC
Wed., 10/12	Monthly meeting	State of the Oak Ridge EM Program	Jay Mullis	Hemelright Trujillo Wilson	DOEIC
	Site tour	(no site tour)			
Wed., 10/26	EM/Stewardship	State of the Oak Ridge EM Program detailed discussion	McMillan/ Cain/Henry		DOEIC

	NOVEMBER						
Wed., 11/2	Executive	General business			DOEIC		
Wed., 11/9	Monthly meeting	Excess Contaminated Facilities	McMillan/ Henry	Beatty Ford Gonzalez Thomas Wilson	DOEIC		
TBD	Site tour	On-site tour/Q&A	McMillan/ Henry				
Wed., 11/30	EM/Stewardship	Excess Contaminated Facilities detailed discussion	McMillan/ Henry		DOEIC		

	DECEMBER						
Wed., 12/7	Executive	(No meeting)					
Wed., 12/14	Monthly meeting	(No meeting)					
	Site tour	(no site tour)					
Wed., 12/28	EM/Stewardship	(No meeting–due to holidays)					

JANUARY 2017							
Wed., 1/4	Executive	General business			DOEIC		
Wed., 1/11	Monthly meeting	Ongoing Groundwater Efforts	Mayton	Beatty Deaderick Price Sobek Trujillo	DOEIC		
TBD	Site tour	On-site tour/Q&A	Mayton				
Wed., 1/25	EM/Stewardship	Ongoing Groundwater Efforts detailed discussion	Mayton		DOEIC		

Date	Event	Торіс	Presenter	Issue Group	Location		
	FEBRUARY						
Wed., 2/1	Executive	General business			DOEIC		
Wed., 2/8	Monthly meeting	Waste Disposal Capacity	Henry	Bales Gonzalez Holden Paulus Thomas Trujillo	DOEIC		
TBD	Site tour	On-site tour/Q&A	Henry				
Wed., 2/22	EM/Stewardship	Waste Disposal Capacity detailed discussion	Henry				

	MARCH							
Wed., 3/1	Executive	General business			DOEIC			
Wed., 3/8	Monthly meeting	FY19 Budget Formulation and Prioritization of Projects/Baseline	Stokes/ Thompson	Hemelright Paulus Price Trujillo Wilson	DOEIC			
	Site tour	(no site tour)						
Wed., 3/22	EM/Stewardship	FY19 Budget Formulation and Prioritization of Projects/Baseline detailed discussion	Stokes/ Thompson		DOEIC			

	APRIL							
Wed., 4/5	Executive	General business			DOEIC			
Wed., 4/12	Monthly meeting	(No ORSSAB monthly meeting due to Community Budget Workshop)			DOEIC			
	Site tour	(No site tour)						
TBD	Community Budget Workshop				TBD			
Wed., 4/26	EM/Stewardship	Continued discussion of FY 2019 budget formulation- recommendation if needed			DOEIC			

	MAY							
Wed., 5/3	Executive	General business			DOEIC			
Wed., 5/10	Monthly meeting	Key Material Disposition Activities	McMillan/ DeMonia	Beatty Holden Swindler	DOEIC			
TBD	Site tour	On-site tour/ Q&A	McMillan/ DeMonia					
Wed., 5/24	EM/Stewardship	Key Material Disposition Activities detailed discussion.	McMillan/ DeMonia		DOEIC			

Date Event Topic Presenter Issue Group Location

	JUNE							
Wed., 6/7	Ved., 6/7 Executive Annual meeting planning							
Wed., 6/14	Monthly meeting	FACA Presentation	HQ	None required	DOEIC			
	Site tour	(No site tour)						
Wed., 6/28	EM/Stewardship				DOEIC			

	JULY								
Wed., 7/5	Executive	(No meeting)			DOEIC				
	New member training & tour								
Wed,, 7/12	Monthly meeting	(No ORSSAB monthly meeting due to new member training)							
	Site tour	(No site tour)							
Wed., 7/26	EM/Stewardship	(No meeting)			DOEIC				

	AUGUST							
Wed., 8/2	Executive	Annual meeting planning	g planning DOEIC					
Sat., 8/	Annual meeting	FY 2017 review and planning for FY 2018						
Wed,, 8/9	Monthly meeting	(No ORSSAB monthly meeting due to Annual meeting)						
	Site tour	(No site tour)						
Wed., 8/23	EM/Stewardship	(No meeting)						

	SEPTEMBER							
Wed., 9/6	Executive	General business			DOEIC			
Wed., 9/13	Monthly meeting	Vision 2020-Planning for the Future of ETTP including Reuse, Historic Preservation and Stewardship	Cooke/Cain	Deaderick				
	Site tour	(No site tour)						
Wed., 9/27	EM/Stewardship	Vision 2020-Planning for the Future of ETTP including Reuse, Historic Preservation and Stewardship detailed discussion	Cooke/Cain		DOEIC			

BOARD MINUTES/ RECOMMENDATIONS



Many Voices Working for the Community

Oak Ridge Site Specific Advisory Board

Monthly Meeting of the Oak Ridge Site Specific Advisory Board

Unapproved October 12, 2016, Meeting Minutes

The Oak Ridge Site Specific Advisory Board (ORSSAB) held its monthly meeting on Wednesday, October 12, 2016, at the DOE Information Center, 1 Science.gov Way, Oak Ridge, Tennessee, 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 Kathryn Bales Christopher Beatty Richard Burroughs Mike Ford Martha Deaderick Rosario Gonzalez David Hemelright Belinda Price Deni Sobek Mary Smalling (via telephone) Fred Swindler Venita Thomas Ed Trujillo Rudy Weigel Dennis Wilson

Members Absent

Eddie Holden Howard Holmes¹ Greg Paulus Elizabeth Ross¹ Phil Yager¹

¹Second consecutive absence

Liaisons, Deputy Designated Federal Officer, and Alternates Present

Dave Adler, ORSSAB Alternate Deputy Designated Federal Officer (DDFO), Department of Energy, Oak Ridge Office of Environmental Management (DOE-OREM)
Sue Cange, Manager for OREM
Connie Jones, Environmental Protection Agency (EPA) Region 4 (via telephone)
Jay Mullis, Deputy Manager for OREM and ORSSAB DDFO
Melyssa Noe, ORSSAB Alternate DDFO, DOE-OREM
Robert Storms (for Kristof Czartoryski), Tennessee Department of Environment and Conservation (TDEC)

Others Present

Wendy Cain, DOE-OREM Ashley Huff, ORSSAB Support Office Pete Osborne, ORSSAB Support Office

Three members of the public were present.

Liaison Comments

Ms. Cange – Ms. Cange has accepted an interim position at DOE Headquarters in Washington, D.C., as the Acting Principal Deputy Assistant Secretary for EM. Mark Whitney, who formerly filled the role, has taken a job in the private sector. Jay Mullis, OREM's Deputy Manager, will assume the role of acting manager during Ms. Cange's absence. He has already taken over as ORSSAB's DDFO.

Mr. Mullis –

- In regards to program funding, OREM is in a continuing resolution through December 9, 2016, that is sufficient to cover all current operations and initiatives.
- With the demolition and removal of Building K-27 in August at the East Tennessee Technology Park (ETTP), OREM completed its goals for Vision 2016. The local program is now focused on Vision 2020, which aims to complete the remaining cleanup work at ETTP by 2020.
- OREM has recently undergone several key administrative reorderings. A new organization chart has been issued (see Attachment 1).

Ms. Jones – Ms. Jones updated the board on the status of the land transfer deed on the former Powerhouse, Duct Island, and K-1007-P1 Pond Area at ETTP. The document was signed by the EPA division director and is being processed by DOE. It will transfer 662 of 1400 acres of land for reindustrialization.

Mr. Storms – No comment.

Public Comment

Mr. Brady, a resident of Oak Ridge, updated the board on the status of interactions with DOE and the group of residents near Tuskegee Drive who recently expressed concerns for their groundwater wells. Mr. Brady reported that since last month the group has been in contact with both Brian Henry and Dave Adler. He said the residents will meet with Mr. Henry and Mr. Adler in person on October 21, 2016.

Presentation

Jay Mullis, OREM's Deputy Manager and ORSSAB's new DDFO, delivered a presentation on the "State of the Oak Ridge EM Program" (Attachment 1). Mr. Mullis discussed administrative changes, recent accomplishments, and budget and priorities for the near term.

Current Program Status

OREM recently reorganized its administrative offices to improve efficiency and coverage. Several key changes were made, including grouping project management and project controls in the same division, adding a contracts group, combining field-centric groups into one division, and separating quality assurance into a distinct office. (See organization chart on slide 1 for more information).

OREM groups program cleanup goals into 4-year implementation periods or "visions." The expectations set for Vision 2016, to remove all five gaseous diffusion building at the ETTP site, were accomplished at the end of August 2016. The achievement was recognized across DOE's EM complex nationwide as the first time in the world that a former uranium enrichment complex successfully completed cleanup and removal of all its gaseous diffusion processing buildings. The feat totaled impressive figures, such as 4.5 million square feet demolished, 56,000 truckloads of waste shipped onsite, and 137 miles of piping removed (see slide 4). Even more impressive, the 56 thousand truckloads of waste were shipped with no injuries, due in large part to the use of DOE's private haul road, an invaluable solution (encouraged by the site-specific advisory board in the past) that has kept EM waste transportation out of public transit routes and allowed for better and safer operations overall.

Having celebrated the completion of Vision 2016, OREM is embarking on its next four-year mission for Vision 2020. Vision 2020 aims to complete the remaining cleanup work at ETTP and transfer the site for use as a private-sector industrial park. Following 2020, OREM's Vision 2024 will focus on mercury cleanup at the Y-12 National Security Complex (Y-12).

The budget outlook for fiscal year (FY) 2017 (slide 5) sufficiently supports program goals. OREM's current enacted budget for FY 2016 is \$469.4 million. The program expects FY 2017 appropriations to exceed the president's request and fall between \$418.5 million (house mark) and \$497.7 million (senate mark). That range will allow OREM to complete all upcoming priorities.

The Path Ahead

OREM will applying lessons learned to continue cleanup efforts and will apply the training and experience already gained during the program's transition to work at Y-12. DOE will begin projects now that will help ensure safety and compliance down the road. The Mercury Treatment Facility is an important control measure, already in the design phase, that will need to be in place before disturbing buildings and soils at Y-12, since mercury flux will likely increase as a result of those activities. OREM will also need a new onsite disposal facility. EM's current disposal facility, the Environmental Management Waste Management Facility, will reach near-capacity with waste from ETTP. By the mid-2020s when large-scale demolition is underway at Y-12, additional disposal capacity will be needed to complete cleanup.

Across the nation, DOE's management of excess facilities has recently come under scrutiny. OREM is increasing program focus on excess contaminated facilities at Y-12 and the Oak Ridge National Laboratory (ORNL) (slide 8). There are approximately 350 excess contaminated facilities in Oak Ridge, making up 25% of DOE's nationwide inventory. Oak Ridge is home to some of the worst of these facilities. Of the 350, 46% of those are classified as high-risk, which accounts for 40% of facilities in the high-risk category across the DOE complex. Examples include Beta 4 and the Biology Complex at Y-12. Work was initiated in 2016 on both of these. Funding will continue in FY17 to do risk reduction activities, not to be confused with decontamination and decommissioning (D&D). Risk-reduction activities include removal of hazardous material, sampling, and meeting documentation requirements. The goal of excess contaminated facilities funding will be to stabilize facilities for long-term stewardship until D&D begins.

In addition to these objectives, OREM continues to focus on several key missions (slide 11):

- Treating and disposing of transuranic waste,
- Direct dispositioning and processing of U-233,
- Surveillance and maintenance of facilities awaiting D&D,
- And life-extension programs and engineering evaluations to support critical infrastructure (e.g., for facilities in need of maintenance that must continue to operate, such as the Liquid Gaseous Waste Operations at ORNL).

OREM continues to execute DOE's Groundwater Strategy for the Oak Ridge Reservation (ORR) (slide 12). Active groundwater removal and treatment systems are in place at all three of DOE's cleanup sites in Oak Ridge. Data collection and modeling activities in support of a calibrated regional groundwater flow model for the ORR are ongoing. The Oak Ridge program is currently completing an Offsite Groundwater Assessment Project. The work is ongoing, but preliminary data does not indicate any DOE site-related contaminants to exceed EPA drinking water standards. OREM will continue to work with TDEC and EPA on future phases of the Groundwater Strategy.

OREM is positioned for progress in FY 2017 with a comprehensive cleanup program in place for the ORR (slide 13). Generous congressional support has enabled safe and efficient operations, and with sufficient funding OREM will continue to make progress on program priorities. Key partnerships with regulators and stakeholders, such as ORSSAB, are also vital to the program's future successes.

After the presentation, board members raised the following questions:

Mr. Trujillo—What will happen to haul road after 2020? Mr. Mullis said that it depends on whether or not there is interest from other parties on using the road. DOE is looking for partnerships to take over the portion of the haul road that extends from ETTP to Y-12. Y-12 may be interested in using the road to transport and store materials for its Uranium Processing Facility. The State, the Community Reuse Organization of East Tennessee, or other businesses may also have a use. Ultimately, however, EM will not need the haul road following the closure of ETTP, and the road will be abandoned if no partnerships are made.

Mr. Trujillo asked about the program budget. In terms of the best case scenario, if we receive an average between the house mark and senate mark for funding, does that amount still meant that we would fall short by \$40-50 million? Mr. Mullis said he did not believe that would be the case. In FY 2016, OREM received about \$100 million above the president's request. The president's budget is higher in FY 2017, and either the house mark or the senate mark are sufficient to meet program priorities. Obviously the senate mark is higher and thus preferable; it would include more appropriations in excess facilities, for instance.

Mr. Trujillo asked about planned D&D for excess facilities. Will D&D activities go beyond 2024? Mr. Mullis explained that the D&D at ORNL and Y-12 will start in 2024. The D&D at ETTP will finish up by 2020. There will be groundwater-related and post-closure activities, but the plan is to have ETTP close between 2020-2024 and move the workforce over to Y-12 to begin D&D and restoration activities in earnest.

Mr. Trujillo asked—Will the D&D for excess facilities be more difficult or more expensive than the work at ETTP? Mr. Mullis said he did not expect it to be more difficult or more expensive, but the primary concern has been that UCOR, the cleanup contractor at ETTP, cannot perform the work at Y-12. Their contract is a closure contract for ETTP which allows for some work at Y-12. So when D&D begins in earnest at Y-12, DOE will have to have gone through a new procurement and will have a new contractor. He said that another consideration is that the facilities at ETTP have all been similar to one another; they are different sizes, but the hazards within the different buildings are essentially the same. Thus, experience from the first building's demolition carried over and informed the others. When DOE shifts focus to Y-12, the contractor will encounter unfamiliar territory with different types of buildings and different hazards.

Mr. Trujillo asked if lessons learned will still play a big role in the transition to 2024. Mr. Mullis said that certain lessons on how to approach things, such as maintaining building infrastructure and awareness of falling hazards, etc., will be transportable. However, the workforce will also encounter new materials and new types of buildings.

Mr. Storms asked about surveillance and maintenance (S&M) programming. Were concerns found during those activities brought forward to the Federal Facility Agreement (FFA) parties so that milestones could be reevaluated? Mr. Mullis said that if there were major issues found in the buildings that would affect the FFA, they would be disclosed. Mr. Adler explained that OREM shares all data with regulators related to how the program spends money. If it comes to maintaining compliance and avoiding discharges, those would be the highest priority and would not be flexible or put off for other priorities.

Mr. Storms also asked—If you do encounter an issue unexpectedly and your budget is already set, then would something have to come off? Mr. Adler said that such a scenario could impact some other commitment if the program needs to use funds for an unexpected problem. In that case, DOE would have to appeal to regulators for a relaxation on its commitments. Mr. Mullis explained that this scenario is unlikely. The \$5 million estimate for the S&M fund is meant to provide enough coverage so that other commitments would not be affected by any arising S&M needs.

Mr. Weigel asked if the Molten Salt Reactor Experiment (MSRE) and the Homogeneous Reactor Experiment (HRE) are in the plans for future demolition at ORNL. Mr. Mullis said that those facilities were included but that they were further in the future since they are not considered the among the worst of EM's excess facilities. He added that OREM is spending some money at HRE this year to remove asbestos and get water out of the basement. At MSRE, DOE is conducting an engineering study and should get the report on that at the end of October 2016, at which time decisions can be made about what needs immediate attention and what may take longer to tackle.

Mr. Fogel, a member or the public, asked—When do you expect the proposed EM Disposal Facility (EMDF) to be constructed? Mr. Mullis said ideally the first two cells would be built by the mid-2020s, but construction was funding dependent.

Committee Reports

EM & Stewardship

Mr. Trujillo reported –

• The next EM & Stewardship Committee meeting is scheduled for Wednesday, October 26, 2016, at 6 p.m. Discussion will follow on the October 12, 2016, presentation on the "State of the Oak Ridge Environmental Management Program."

Executive

Ms. Price reported -

- ORSSAB would like to survey board member interest in a holiday gathering. Please respond to the email survey distributed by staff no later than October 13, 2016. Further updates on the holiday gathering will come from staff via email.
- In response to recent interactions with Oak Ridge residents (Tuskegee group) who were unable to locate the September 14, 2016, board meeting, ORSSAB has implemented changes to avoid confusion about meeting locations in the future. The board does not typically hold offsite meetings, so the September meeting was atypical. The location was noted on ORSSAB's website and online calendar in advance of the meeting, but meeting information will now be more prominently displayed. DOE has also spoken with the Tuskegee residents to address their concerns about groundwater.
- A new issue of ORSSAB's newsletter, the *Advocate*, was released in October. Electronic copies are available <u>online</u>. Hard copies are available upon request by contacting staff at <u>Ashley.Huff@orem.doe.gov</u> or <u>Pete.Osborne@orem.doe.gov</u>.
- The next meeting of the Executive Committee is scheduled for Wednesday, November 2, 2016, at 6 p.m.

Announcements and Other Board Business

- The board thanked Sue Cange for her service and wished her well in her new position as the Acting Principal Deputy Assistant Secretary of EM.
- The board welcomed Jay Mullis as the new DDFO of ORSSAB.
- ORSSAB's new member appointments were officially welcomed by DOE during the meeting. ORSSAB's nine new members are Kathryn Bales, Christopher Beatty, Rosario Gonzalez, Eddie Holden, Deni Sobek, Fred Swindler, Venita Thomas, Rudy Weigel, and Phi Yager.

Alternate DDFO Report

Mr. Adler – DOE looks forward to reviewing the board recommendation approved during the October 12, 2016, meeting and will prepare an appropriate response. No other recommendations are outstanding.

Motions

<u>9/14/16.1</u>

Mr. Trujillo moved to approve the minutes of the September 14, 2016, board meeting. Mr. Wilson seconded and the motion passed **unanimously**.

9/14/16.2

Mr. Hemelright moved to approve the "Recommendations on the Proposed Environmental Management Disposal Facility at the U.S. DOE Oak Ridge Reservation" (Attachment 2). Mr. Wilson seconded and following discussion the motion passed **unanimously**.

During discussion Mr. Trujillo emphasized that the EM & Stewardship Committee wanted to make general recommendations regarding a new waste disposal facility and to avoid technical specifics that would be addressed elsewhere or investigated directly in the Remedial Investigation/Feasibility Study (RI/FS) for the proposed EMDF. However, in order to address technical concerns raised by Mary Anne Koltowich of the Roane County Environmental Review Board, which did not ultimately figure into the board's recommendation, ORSSAB requests a follow-up information session from DOE regarding the RI/FS on the proposed EMDF and relevant lessons learned, such as on the use of clean fill vs. contaminated fill. Ms. Price noted that the February board meeting will feature waste disposal and would provide an appropriate occasion. She requested that Brian Henry be available for the February meeting, if at all possible.

Action Items

Open Action Items

- 1. Mr. Adler will update Mr. Czartoryski and the board on the status of a response to TDEC's letter concerning a request for additional EM milestones. (*Carryover from 3/9/16*). **Open.**
- 2. DOE will schedule a technical overview of the proposed EMDF for the February 8, 2016, monthly meeting.

The meeting adjourned at 7:06 p.m.

Attachments (2) to these minutes are available upon request from the ORSSAB support office.

I certify that these minutes are an accurate account of the October 12, 2016, meeting of the Oak Ridge Site Specific Advisory Board.

Dave Hemelright, Secretary

DATE

REPORTS & MEMOS

EM Project Update

ETTP	September	October
Zone 1 Interim ROD	EU Z1-50 was characterized to determine if remediation is required.	
Zone 1 Final Soils ROD	A meeting was held with EPA and TDEC to discuss their comments on the D1 ROD.	EPA notified DOE that additional comments will be transmitted on the D1 ROD.
Zone 2 Soil ROD	Remediation of EUs Z2-28 and Z2-41 was completed. An Explanation of Significant Differences to the Zone 2 ROD to address the management of water was transmitted to the regulators.	
Sitewide ROD	A meeting was held with the regulators to discuss their comments on the Treatability Study Work Plan Addendum and tour the site of the treatability study.	Responses to Comments on the Design Characterization Treatability Study Work Plan Addendum were submitted to the regulators. Planning was conducted in preparation for the design characterization field activities.
K-27 D&D		All demolition debris from the K-27 concrete pad was removed and the radiation survey was completed. The project collected 60 core samples and are awaiting results.
Remaining Facilities	The pre-demolition verification checklist was completed for K-731, and the building was condemned. Immediately following the final demolition of the K-27 Building, demolition was initiated on K-731.	Demolition is more than 40 percent complete on K-731. The project is scheduled for completion in March, 2017, approximately five months ahead of schedule.
		Crews continue removing asbestos materials from piping and other areas throughout the K-1037 building to facilitate intrusive sampling in accordance with the tailoring strategy approved for the project. In additions, chemicals have been placed in compliant storage until its final disposition.
ORNL	September	October
U-233 Disposition	The Startup Notification Report for Building 3019 Complex, Fourth Quarter FY 2016 was approved.	Isotek is participating with the Office of Enterprise Assessment to evaluate security discipline critical to the protection of national security assets at ORNL.
	Building 3019 roof replacement continues and is approximately 98 percent complete. An investigation continues of structural settling issues in Building 3017 and 3019.	The Building 2026 Processing Preparation project team drafted waste profiles for the Nevada National Security Site. The project team has issued Requests for Information/Request for Proposals to vendors in support of the project to provide equipment and services.
6556 Trailer Complex	Premobilization has begun for the demolition and disposal of the 6556 trailer complex. This work will complete 90 percent of the waste projected to be disposed from ORNL on the waste prioritization list.	
Bethel Valley ROD	Submitted the RDR/RAWP Addendum for the D&D of the Non- Reactor Facilities to the regulators for review. This addendum details the work to be performed at Buildings 3026 and 3038 at ORNL.	

EM Project Update

ORNL	September	October
ORNL S&M	The PCCR for the FY 2015 S&M Waste Management was approved	
N/ 40	by the regulators.	
Y-12	September	October
Outfall 200 Mercury	Outfall 200 site characterization fieldwork was completed; continued	The Preliminary Project Execution Plan was amended to include
Treatment Facility	with Final Design.	Critical Decision 3A for early site preparation.
		The Work Plan, Health & Safety Plan, and Waste Management Plan has been accepted for the Phase 2 geotechnical work at the site.
Y-12 Facilities D&D	Work packages and plans are being developed for Alpha-4 COLEX equipment removal. The roofing contractor has completed repair of known and discovered leaks, as well as flashing and parapet wall repairs on the west roof.	Representatives from EM HQ and the National Nuclear Security Administration participated in a review of non-EM excess contaminated facilities located at the Y-12 National Security Complex.
	Biology Complex characterization activities are underway. Sample location marking is more than 90 percent complete in Building 9401- 1 and approximately 65 percent complete in Building 9207.	The review team will generate a report that details expectations for eventual transfer of the buildings to EM, once funding becomes available for disposition.
		OREM assumed operational responsibility of the Biology Complex on October 5th using a Memorandum of Agreement with the ORNL Site Office.
		Alpha 4 roof repairs were completed. Work package preparation for Alpha 4 Column Exchange (COLEX) equipment removal continued. Cleaning and sealing of the COLEX pads began, as well as installation of walkways and handrails.
Off-Site Cleanup/Waste Management	September	October
TRU Waste	The General Site Technical Review (GSTR) resulted in no findings.	
Processing Center	The GSTR team has several more documents to review before the final report is issued.	
Sludge Test Area Characterization	The contract for the characterization of the Sludge Test Area was awarded to Strata-G. The contract scope includes taking samples at Facility 7658 at the Sludge Test Area at ORNL.	The characterization data will be provided to the Sludge Processing Facility Buildouts Architect-Engineer Contractor in support of the design effort.
		The Sludge Processing Facility Buildouts Project began sampling for characterization of the Sludge Test Area (ORNL Facility 7658). Technical support personnel from the Savannah River National Laboratory were on site to conduct a Design Authority Assessment for this project.
EMWMF and EMDF	EPA, TDEC, and DOE continued working through informal dispute issues on the EMDF Remedial Investigation/Feasibility Study.	EPA, TDEC, and DOE continued working through informal dispute issues on the EMDF Remedial Investigation/Feasibility Study.
WRRP	The Five-Year Review was submitted to the regulators for approval.	

EM Project Update

Off-Site	September	October
Cleanup/Waste		
Management		
Public Involvement		Regulator comments were received and a D2 version of the PIP was
Plan (PIP)		submitted to the regulators for approval.
		The Community Outreach Plan was approved by the regulators.

Abbreviations for EM Projects Update

D&D – decontamination and decommissioning

DOE – Department of Energy

EM – Environmental Management

EMDF – Environmental Management Disposal Facility

EMWMF – Environmental Management Waste Management Facility

EPA – Environmental Protection Agency

EU – exposure unit

FY – fiscal year

HQ – headquarters

OREM – Oak Ridge Office of Environmental Management

ORNL – Oak Ridge National Laboratory

PCCR – Phased Construction Completion Report

RAWP – Remedial Action Work Plan

RDR – Remedial Design Report

ROD – Record of Decision

- S&M surveillance and maintenance
- TDEC Tennessee Department of Environment and Conservation

TRU – transuranic

WRRP – Water Resources Restoration Program

Travel Opportunities

Meeting/Event	Dates	Location	Reg. Cost	Website	Conference Lock Date; # Allocated Attendees	Deadline to Submit Requests
		FY 2	015			
Perma-Fix Nuclear Waste Management Forum	Meeting canceled	Nashville				
Intergovernmental Meeting with DOE (Pending requests:)	Nov. 16 - 18, 2016	New Orleans	none		7/30/16	7/30/16
Waste Management Symposium (Pending requests: Price)	March 5-9, 2017	Phoenix	TBD	www.wmsym.org	9/30/16 (2)	12/16/16
National Environmental Justice Conference & Training (Pending requests:)	March 8-10, 2017	Washington, D.C.	none	http://thenejc.org	N/A	
2017 Spring Chairs Meeting (Pending requests:)	ТВО	TBD	none		N/A	
RadWaste Summit (Pending requests:)	TBD	Summerlin, Nevada	TBD	http://www.exchangemonit or.com/forums/annual- radwaste-summit/	TBD	
DOE National Cleanup Workshop (Pending requests:)	тво	TBD	none		TBD	
2017 Fall Chairs Meeting (Pending requests:)	TBD	TBD	none		N/A	
EPA National Brownfields Conference (Pending requests:)	December 5-7, 2017	Pittsburgh	TBD	https://www.epa.gov/brow nfields/2017-national- brownfields-training- conference	N/A	

Shaded trips are closed

WASTE TYPES									
		Radioactive		Regulated Regulated Non-radioactive Other					
Condition	<u>HLW</u> High Level Waste	<u>TRU</u> Transuranic	<u>LLW</u> Low Level Waste	<u>RCRA</u> Resource Conservation & Recovery Act	<u>TSCA</u> Toxic Substance Control Act	<u>Sanitary</u>	<u>Industrial</u>	<u>Universal</u>	
Mixed* Radioactive + RCRA	х	Х	Х						
Hazardous				x	х				
Non-Hazardous		Х	Х			Х	х	х	

The Department of Energy (DOE) defines solid waste as any discarded material. Generally, radioactive waste has three types; High Level, Transuranic, and Low Level. These classifications depend on how the waste was generated, the isotopes associated with the waste, and the concentration of contaminants within the waste. Non-radioactive waste is subject to other various regulations; a general term for this waste is "regulated waste".

High-Level Waste – Highly radioactive waste resulting from the reprocessing of spent nuclear fuel, including liquid waste produced directly in reprocessing and any solid material derived from such liquid waste that contains fission products in sufficient concentrations; and other highly radioactive material that is determined, consistent with existing law, to require permanent isolation. (NOTE: HLW is the only waste type in this table that is <u>not</u> an EM concern on the Oak Ridge Reservation. It was included because it's a major issue at Hanford and the Savannah River Site and is mentioned in many of the articles that we come across.)

<u>Transuranic Waste</u> – Radioactive waste containing more than 100 nanocuries (3700 becquerels) of alpha-emitting transuranic isotopes per gram of waste, with half-lives greater than 20 years, except for: (1) High-level radioactive waste; and (2) waste that the Secretary of Energy has determined, with the concurrence of the Administrator of the Environmental Protection Agency, does not need the degree of isolation required by the 40 Code of Federal Regulations (CFR) Part 191 disposal regulations.

Low-Level Waste – Radioactive waste that is not high-level radioactive waste, spent nuclear fuel, transuranic waste, byproduct material (as defined in section 11e(2) of the Atomic Energy Act of 1954, as amended), or naturally occurring radioactive material.

Mixed Waste – Radioactive waste that has a hazardous component subject to the Resource Conservation and Recovery Act (RCRA), as amended (Source DOE O 435.1); for example Low-level/RCRA is mixed waste.

<u>Hazardous Waste</u> – Regulated Waste that meets any of the following RCRA criteria: (I) exhibits any of the characteristics of hazardous waste including; a. Ignitability, b. Corrositivity, c. Reactivity, d. and/or Toxicity; or (ii) Is listed in subpart D of 40 CFR Part 261 (Source 40 CFR 261). Other common Regulated Waste is controlled under the Toxic Substances Control Act (**TSCA**).

*Although some suspect TRU waste may have hazardous components associated with it, once it is classified as TRU it is no longer a RCRA associated waste. It is only TRU. TSCA wastes are not usually considered in the mixed waste definition, however it is included here because these wastes all require additional treatment prior to disposal.