

Oak Ridge Site Specific Advisory Board Monthly Meeting



Wednesday, October 12, 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. October
2. November (*draft*)
3. Work plan schedule of meetings

BOARD MINUTES/RECOMMENDATIONS & MOTIONS

1. September 14, 2016, unapproved meeting minutes
2. Recommendations on the proposed EM Disposal Facility

REPORTS & MEMOS

1. EM Project Update
2. Travel Opportunities for FY 2017
3. Trip Reports

AGENDA



Oak Ridge Site Specific Advisory Board
Wednesday, October 12, 2016, 6:00 p.m.
DOE Information Center
1 Science.gov Way, Oak Ridge, Tenn.

AGENDA

- I. Welcome and Announcements (B. Price)6:00–6:05
 - A. Next Meeting: Wednesday, November 9
Presentation Topic: Excess Contaminated Facilities
 - B. Introduction of New Members & Student Representative (J. Mullis)
- II. Comments from the Deputy Designated Federal Officer, and EPA and TDEC Liaisons
(J. Mullis, C. Jones, K. Czartoryski).....6:05–6:15
- III. Public Comment Period (D. Hemelright).....6:15–6:25
- IV. Presentation: State of the Oak Ridge Environmental Management Program (Jay Mullis)
(Issue Group Members: Hemelright, Trujillo, Wilson).....6:25–6:50
Question and Answer Period6:50–7:05
- V. Call for Additions/Approval of Agenda (B. Price).....7:05
- VI. Motions7:05–7:10
 - A. September 14, 2016, Meeting Minutes (D. Hemelright)
 - B. Recommendations on the Proposed Environmental Management Disposal Facility
at the U.S. DOE Oak Ridge Reservation (E. Trujillo)
- VII. Responses to Recommendations & Comments (D. Adler)7:10–7:15
- VIII. Committee Reports7:15–7:20
 - A. EM/Stewardship (E. Trujillo)
 - B. Executive (B. Price)
 - 1. FY 2017 Work Plan Issue Group Sign-up
- IX. Additions to Agenda & Open Discussion7:20–7:30
- X. Adjourn7:30

PRESENTATION MATERIALS

Presentation to be
distributed at or prior
to meeting

CALENDARS



Oak Ridge Site Specific Advisory Board October 2016

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5 Executive Committee Meeting 6:00-7:00 p.m.	6	7	8
9	10 Columbus Day Staff Holiday	11	12 ORSSAB Monthly Meeting 6:00-7:30 p.m.	13	14	15
16	17	18	19	20	21	22
23	24	25	26 EM & Stewardship Committee Meeting 6:00-7:30 p.m.	27	28	29
30	31					

All meetings will be held at the DOE Information Center unless noted otherwise.

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

ORSSAB 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, October 24, 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 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.			

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

FY 2017 ORSSAB Work Plan/Schedule

Key: Executive meeting Monthly meeting Site tour EM/Stewardship meeting

Date	Event	Topic	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	<i>(no site tour)</i>			
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	<i>(No meeting)</i>			
Wed., 12/14	Monthly meeting	<i>(No meeting)</i>			
	Site tour	<i>(no site tour)</i>			
Wed., 12/28	EM/Stewardship	<i>(No meeting—due to holidays)</i>			

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

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	<i>(no site tour)</i>			
Wed., 3/22	EM/Stewardship	FY19 Budget Formulation and Prioritization of Projects/Baseline detailed discussion	Stokes/ Thompson		DOEIC

Date	Event	Topic	Presenter	Issue Group	Location
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	<i>(No site tour)</i>			
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

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

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

Date	Event	Topic	Presenter	Issue Group	Location
AUGUST					
Wed., 8/2	Executive	Annual meeting 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	<i>(No site tour)</i>			
Wed., 8/23	EM/Stewardship	<i>(No meeting)</i>			

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	<i>(No site tour)</i>			
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 September 14, 2016, Meeting Minutes

The Oak Ridge Site Specific Advisory Board (ORSSAB) held its monthly meeting on Wednesday, September 14, 2016, at 6 p.m. at the Olive Garden restaurant in Knoxville, Tennessee, located at 7206 Kingston Pike (37919). Due to the circumstances of an offsite meeting location, no video of the meeting was recorded. Past presentation videos are available on the board's YouTube site at www.youtube.com/user/ORSSAB/videos. All other ORSSAB meeting materials are located on the board's website at www.energy.gov/ORSSAB. Requests for information can also be made by contacting ORSSAB support staff at (865) 241-4583 or (865) 241-4584.

Members Present

Kathryn Bales
Christopher Beatty
Mike Ford
Martha Deaderick
Eddie Holden
Greg Paulus
Deni Sobek
Fred Swindler
Venita Thomas
Ed Trujillo
Dennis Wilson

Members Absent

Leon Baker¹
Richard Burroughs
Rosario Gonzalez
David Hemelright
Howard Holmes
Belinda Price
Elizabeth Ross
Mary Smalling
Rudy Weigel
Phil Yager

¹Second consecutive absence

Liaisons, Deputy Designated Federal Officer, and Alternates Present

Kristof Czartoryski, Tennessee Department of Environment and Conservation (TDEC)
Connie Jones, Environmental Protection Agency (EPA) Region 4
Melyssa Noe, ORSSAB Alternate Deputy Designated Federal Officer (DDFO), Department of Energy,
Oak Ridge Office of Environmental Management (DOE-OREM)

Others Present

Sherry Browder, URS | CH2M Oak Ridge LLC (UCOR)
Ashley Huff, ORSSAB Support Office
Lara Manning, ORSSAB Student Rep
Gabrielle McAllister, ORSSAB Student Rep
Pete Osborne, ORSSAB Support Office
Gill Sallade, UCOR

No members of the public were present.

Liaison Comments

Ms. Noe – DOE has prepared a working draft of the FY17 Work Plan. Ms. Noe distributed copies of the draft work plan during the meeting, noting that some items could change or be reorganized due to presenter availabilities, which have not been completely finalized. She encouraged members to review the plan and sign up now as an issue manager for any topic(s) they would like to adopt as a “lead

member.” An issue manager essentially commits to a given topic for the month and makes every effort to attend the board meeting, follow-on discussion, and site tour to gain in-depth understanding and provide continuity during related discussions. Serving as an issue manager or topic leader not only aids in the board’s recommendation process but also helps staff organize site tours and meetings based on member interest and availability.

*Any board member interested in serving as an issue manager for one or more topics, please notify Melyssa Noe (Melyssa.No@orem.doe.gov) or Pete Osborne (Pete.Osborne@orem.doe.gov).

Ms. Jones – Ms. Jones said the evening’s discussion of the East Tennessee Technology Park (ETTP) was timely as EPA is currently reviewing the land transfer document on the former Powerhouse, Duct Island, and K-1007-P1 Pond Area, which if approved would support DOE’s initiative to reindustrialize the ETTP site by transferring 662 of 1400 acres for private industrial use. EPA expects to approve the transfer deed by the end of the month.

Mr. Czartoryski – Following Ms. Jones’ comments, Mr. Czartoryski noted that EPA approval does not mean that all work and actions were completed. Within the Comprehensive Environmental Response, Compensation, and Liability Act, a covenant clause allows for land transfer to occur before all necessary remedial actions are completed, with a deferred commitment to follow up on those actions. Additional work may need to be performed at the ETTP site even after the land is transferred. For instance, there is an Amended Record of Decision (ROD) for Final Soil Actions in Zone 1 at ETTP. The remedy identified in this ROD might require additional soil sampling and potentially additional excavation.

Public Comment

None.

Presentation

Due to the unforeseen circumstances of a major traffic incident in Oak Ridge, Tennessee, that disrupted travel to the meeting location, scheduled presenters, along with several board members, were unable to attend the September 14, 2016, meeting.

Originally, Dave Adler, DOE, and Steve Cooke, DOE, were to discuss “Vision 2020: Planning for the Future of the East Tennessee Technology Park, Including Reuse, Historic Preservation, and Stewardship.” In the absence of both Mr. Adler and Mr. Cooke, Sherry Browder, UCOR, led the discussion. Ms. Browder is the reindustrialization manager for UCOR, DOE’s cleanup contractor in Oak Ridge. She leads UCOR initiatives in support of DOE’s goal to transform the East Tennessee Technology Park (ETTP) into a private-sector industrial park.

Ms. Browder outlined the path ahead for reindustrialization of the ETTP site, formerly a uranium enrichment complex that aided both national defense missions and the nuclear power industry for 40 years, beginning in the 1940s. Site cleanup has been ongoing since 1989 under DOE’s Environmental Management (EM) Program and has made considerable progress over the years. Decontamination and decommissioning (D&D) activities followed by large-scale demolition and cleanup operations have dramatically altered the landscape of ETTP, bringing the “Heritage Center” site closer to reindustrialization.

The EM Program and UCOR work force recently celebrated the completion of Vision 2016, a program goal to complete demolition and removal of all five uranium enrichment processing buildings once standing at the site, including the mile-long Building K-25. The final building (K-27) was successfully demolished at the end of August 2016. The accomplishment makes DOE’s Oak Ridge site the first in the world to successfully complete cleanup for all of its former uranium enrichment processing buildings.

The next milestone on the horizon is Vision 2020, a goal to complete cleanup of the entire ETTP site and transfer the land for reindustrialization.

DOE's goal to transfer the land, or as much of it as is possible, for private use as an industrial park will not only save program costs, such as maintenance or monitoring expenses, but will also benefit the Oak Ridge community economically by attracting desirable investors to the region and creating new jobs.

The step chart below (Image 1) illustrates the path ahead for ETTP's revitalization not only as a multi-use industrial park, but also as a national historical park and conservation area.

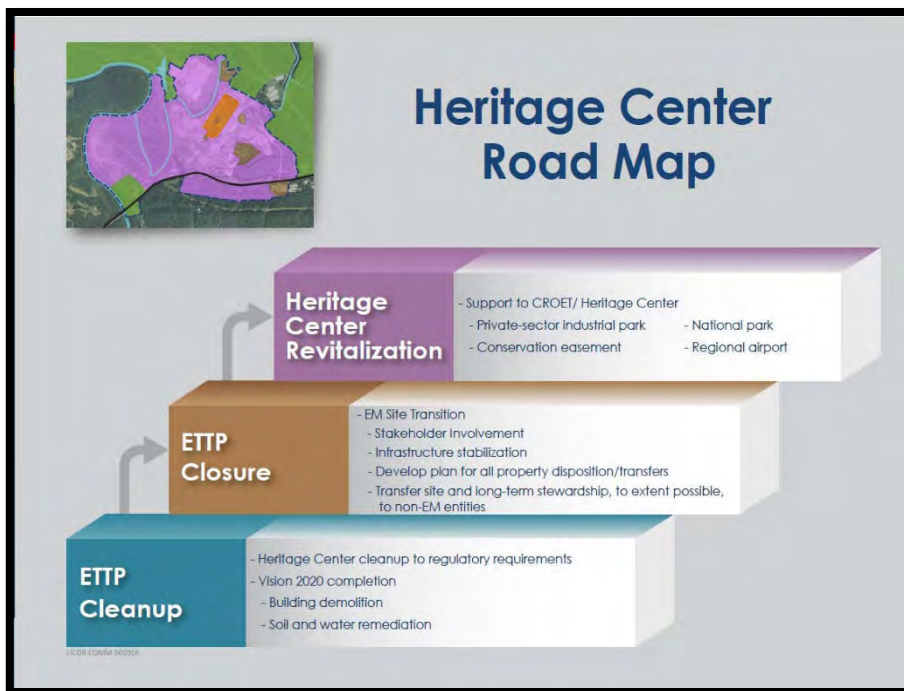


Image 1, Heritage Center Road Map (step chart).

The lower tier corresponds to the current focus and work scope at ETTP. DOE has already completed demolition and removal of some major infrastructure at ETTP, but more work remains to meet regulatory cleanup requirements. Vision 2016 recently accomplished cleanup of the uranium enrichment processing buildings at the site, but Vision 2020 aims to complete cleanup of the entire complex. The work scope for Vision 2020 will continue remaining building demolition activities and will also address decisions for soil and groundwater at the site.

Once cleanup operations are complete and regulatory requirements have been met, the site enters its closure phase (tier 2). However, OREM does not want to “fence in the area and walk away.” The ETTP site represents a huge piece of land with commercial appeal and communal value, and OREM hopes the property will be developed for private industrial use. Planning for the eventual site transfer and long-term stewardship of ETTP are ongoing. OREM has already been working locally with the Community Reuse Organization of East Tennessee (CROET) to transfer available land for that purpose. CROET is a commercial real estate developer that manages the ETTP property and handles sales. Some portions of the site are not developable (due to contamination or classified materials) and will need continued monitoring, but ultimately DOE would like to reduce its long-term liability and related maintenance costs at the site by dispositioning as much of the property as is possible.

Tier three presents the completed picture of ETTP's transformation into the "Heritage Center." The plans include a large, private-sector industrial park, a national historical park to commemorate the K-25 footprint, and a conservation easement for the surrounding lands. CROET has already leased some of the property but is hoping to attract bigger businesses now that larger plots of land are available. Plans for a regional airport onsite are also proceeding.

Ms. Browder showed artist's renderings (see below) of some the site's future features. Funding for historic preservation will go toward commemorating the landmark Building K-25 with a national historical park. In addition to preserving the building's mile-long footprint, an observation tower will also be constructed (Images 2 and 3). A portion of ETTP's onsite firehouse will be converted into a small museum and instructional resource center for visitors (Images 4 and 5). Plans for the museum's construction are on track but funding dependent. A consulting party review of the museum's preliminary design has been completed, and the final design is expected to be certified for a construction package and ready to bid out soon. The anticipated start date for construction is next year, estimated for fall 2017.



Image 2, Building K-25 Footprint, artist's rendering.



Image 3, Equipment Building/Viewing Tower, artist's rendering.



Image 4, Firehouse museum exterior, artist's rendering.



Image 5, Firehouse museum interior, artist's rendering.

During the discussion, board members raised the following questions:

Mr. Paulus asked about the process of advertising the available industrial space at the site and soliciting business opportunities. Does UCOR handle any of those arrangements? Ms. Browder explained that DOE transfers available acreage to a local economic development organization, CROET, which develops and manages the property thereafter. It is CROET's responsibility to market the site. Mr. Paulus also asked in what way, if any, input from potential users impacts ongoing cleanup operations. Ms. Browder explained that UCOR is gathering information with potential use in mind. Market research is being conducted to find out what would be of interest to investors. For the first time, the ETTP site now has larger plots of contiguous land available, which is desirable over smaller, non-adjacent plots in terms of the possibility to bring in a larger company (with a larger workforce) and ultimately create more jobs in the community.

Mr. Trujillo asked about the areas that DOE will not relinquish. Is that decision due to costs? Ms. Browder explained that some areas are retained by DOE because they need continued monitoring, such as landfills or areas with classified landfills.

Mr. Trujillo also asked about the prospects for the Horizon Center. In contrast to the development of the Heritage Center, the Horizon Center seems underutilized, he noted. What is the status on its reindustrialization? Ms. Browder explained that the Horizon Center is a greenfield-industrial park and is now in the hands of city developers (Industrial Development Board). CROET no longer maintains responsibility for that area.

Committee Reports

EM & Stewardship

Mr. Trujillo reported –

- The next EM & Stewardship Committee meeting is scheduled for Thursday, September 22, 2016, at 6 p.m. Discussion will follow on the September 14, 2016, topic of Vision 2020 planning and will also include a status update from Dan Goode with the Technical Advisory Group for Groundwater on the Oak Ridge Reservation.

Executive

Mr. Trujillo reported –

- ORSSAB's 2016 Annual Planning Meeting took place in Townsend, Tennessee, on Saturday, August 6. Board members met with DOE, EPA, and TDEC to develop the board's FY17 Work Plan, which will be discussed in more detail when it is unveiled at the October 12, 2016, board meeting. The annual meeting was an overall success and well attended by new and returning board members. During the meeting, board members actively engaged in discussions of work plan topics. For next year's meeting, many suggested the inclusion of more social opportunities outside of the proceedings to allow members to get acquainted.
- The next meeting of the Executive Committee is scheduled for October 5, 2016, at 6 p.m.

Announcements and Other Board Business

- ORSSAB welcomed its newest members to their first full board meeting. New board members Kathryn Bales, Christopher Beatty, Eddie Holden, Deni Sobek, Fred Swindler, and Venita Thomas all attended the September 14, 2016, meeting, along with a new student representative, Gabrielle McAllister. All of ORSSAB's new appointments will be formally introduced at the October 12, 2016, meeting.
- The board held officer elections for FY17. (See motion **9/14/16.2**). The FY17 board officers are Belinda Price (chair), Dennis Wilson (vice chair), and Dave Hemelright (secretary). All positions are effective for a term of one year as of the September 14, 2016, meeting.

Alternate DDFO Report

Ms. Noe reported –

- Finalizing the FY17 Work Plan continues to be DOE's current objective for the board. The work plan is expected to be signed into effect in October and will be distributed to board members as soon as it is finalized. Ms. Noe distributed a draft of the work plan during the meeting and encouraged members to go ahead and sign up as issue managers for topics in advance.

Motions

9/14/16.1

Mr. Wilson moved to approve the minutes of both the June 8, 2016, board meeting and the August 6, 2016, annual meeting. Mr. Paulus seconded and the motion passed **unanimously**.

9/14/16.2

Mr. Paulus moved to vote on the slate of candidates for FY 2017 board officers as follows: Belinda Price for chair, Dennis Wilson for vice chair, and Dave Hemelright for secretary. Mr. Ford seconded and the motion passed **unanimously**. A board vote for each candidate individually followed with Ms. Price, Mr. Wilson, and Mr. Hemelright all receiving **unanimous** votes on their respective positions.

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*). **Status.** Due to unforeseen circumstances, Mr. Adler was unable to attend the September 14, 2016, meeting. A response is expected at the October 12, 2016, board meeting.

The meeting adjourned at 7:15 p.m.

I certify that these minutes are an accurate account of the September 14, 2016, meeting of the Oak Ridge Site Specific Advisory Board.

Dave Hemelright, Secretary

Belinda Price, Chair
Oak Ridge Site Specific Advisory Board
BP/ach

DATE



Oak Ridge Site Specific Advisory Board Recommendation ___: Recommendations on the Proposed Environmental Management Disposal Facility at the U.S. DOE Oak Ridge Reservation

Background

Much of the Manhattan Project legacy waste for which the Department of Energy (DOE) Oak Ridge Environmental Management (OREM) program is responsible falls under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (also known as the Superfund Act), which is a federal law regulating the cleanup of designated sites contaminated with hazardous waste.

The DOE Oak Ridge Reservation (ORR) is home to three large industrial sites with numerous buildings, burial grounds, soils, and other contaminated media for which OREM has responsibility. CERCLA wastes from OREM cleanup activities at these sites [the East Tennessee Technology Park (ETTP), Oak Ridge National Laboratory (ORNL), and the Y-12 National Security Complex (Y-12)] are in large part disposed in an existing OREM landfill known as the Environmental Management Waste Management Facility (EMWMF) near Y-12.



EMWMF is a dedicated disposal facility in Bear Creek Valley that receives low-level radioactive waste, hazardous waste regulated under the Resource Conservation and Recovery Act of 1976, waste regulated under the Toxic Substances Control Act of 1976, and mixed wastes generated from the cleanup programs at the ORR conducted under CERCLA. It is an engineered facility with six cells, a 2.18 million cubic yards capacity, and a 43-acre footprint, under final cover. EMWMF has been actively accepting ORR

CERCLA waste since 2002, but its capacity to accept waste will be exhausted by the year 2023.

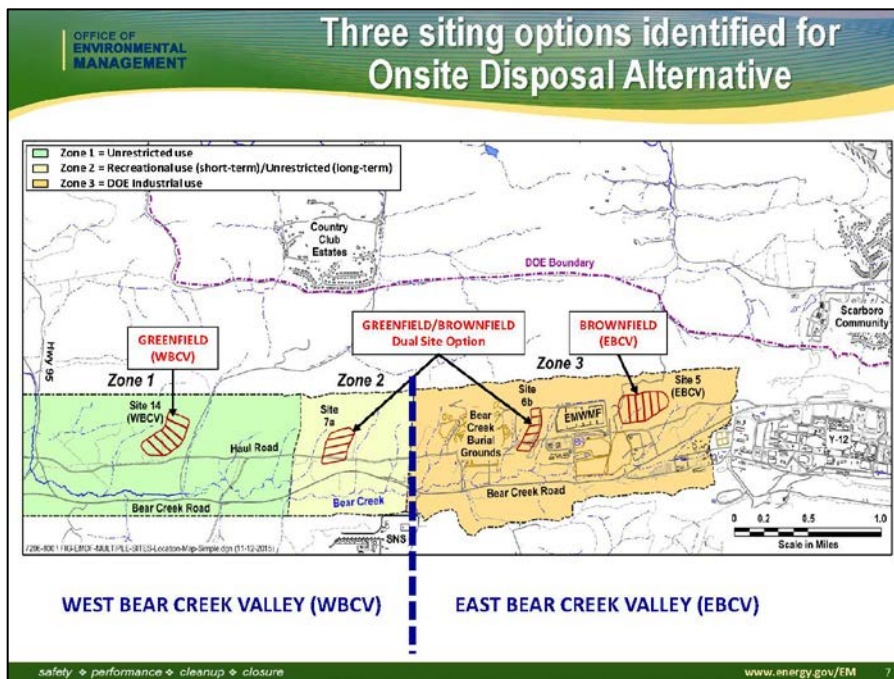
In December 2010, DOE first announced that additional CERCLA waste disposal capacity on the ORR would be necessary because of the expansion of OREM scope in the years since construction of EMWMF began. This need for additional capacity is primarily due to two factors: (1) the availability of American Recovery and Reinvestment Act funds that allowed OREM to accelerate clean-up projects within its scope at that time, and (2) expansion of the OREM program in recent years to include the removal of outdated facilities at ORNL and Y-12. DOE estimates that additional capacity for approximately 2.5 million cubic yards of waste will be needed through the year 2046.

Development of a new disposal area, named the Environmental Management Disposal Facility (EMDF), has been proposed by DOE to the Tennessee Department of Environment and Conservation (TDEC) and the Environmental Protection Agency (EPA). A “Remedial Investigation/Feasibility Study for CERCLA Waste Disposal¹” was written in 2012 to develop, screen, and evaluate alternatives for waste disposal against CERCLA criteria. It included a single site option/location for onsite disposal. The report was first submitted to TDEC and EPA for review in September 2012. The latest version, which includes five site options/locations, was submitted in March 2016 is currently undergoing review. Following finalization of the investigation/feasibility study, a Proposed Plan will be issued to TDEC, EPA, and the public for input. Following resolution of the plan, a Record of Decision will be signed by the three agencies, and design and construction activities will begin (currently estimated at 2018).

As part of an initial screening process for onsite alternatives, sixteen sites were evaluated as potential locations for an onsite disposal facility. Factors included topography and hydrology, available capacity, and intended future land use of the sites. Given these criteria, the search for onsite disposal options centered on Bear Creek Valley as the most viable location.

While considerable effort has been spent evaluating onsite options, both onsite and offsite options for CERCLA waste disposal are currently being considered by DOE, EPA, and TDEC. The following alternatives are under consideration:

- *No Action* — This alternative is a CERCLA requirement and is not expected to be selected.
- *Offsite Disposal* — This alternative would require the cross-country transport of waste to facilities in Utah and Nevada by truck and rail operations.
- *Hybrid Disposal* — This alternative would include a combination of a small onsite facility with additional offsite disposal at existing facilities.
- *Onsite Disposal* — This alternative is estimated to save \$800 million versus offsite disposal. Three options for onsite disposal are under consideration.



DOE maintains no stated preference at this time and is evaluating all options. However, since offsite federal and commercial facilities are already in place, discussions of an onsite or hybrid alternative have recently generated more activity among the three agencies owing to the fact that any of the onsite options require the selection of a new landfill location.

Discussion

ORSSAB began discussing the need for additional CERCLA waste disposal capacity on the ORR at its

December 2010 Environmental Management/Stewardship Committee meeting and has continued to follow developments and correspondence among the three agencies since that time.

In June 2011, the board issued Recommendation 200: “Recommendation on the Decision Process for Siting a Second CERCLA Waste Disposal Facility².” The recommendation suggested early involvement of state

and local governments and area citizens in the process of selecting a site for an additional waste disposal facility. It asked DOE to carefully evaluate future disposal needs and lifecycle costs and look for ways to reduce its disposal needs. It also recommended that DOE commit to additional payments to the State of Tennessee for long-term post-closure stewardship if EMDF is built.

In May 2014, ORSSAB issued Recommendation 223: “Recommendations on Additional Waste Disposal Capacity on the Oak Ridge Reservation³.” It asked DOE to continue planning for an additional onsite disposal facility that would have sufficient capacity to accept all appropriate future generated waste from DOE activities through cleanup of the ORR. It made general recommendations as to safety and siting, and it restated the board’s position on long-term post-closure stewardship.

In May 2016, DOE provided ORSSAB with an update on planning for CERCLA waste disposal capacity at its monthly board meeting and at its Environmental Management/Stewardship Committee meeting. The following recommendations were generated from discussions at those meetings.

Recommendations

ORSSAB supports onsite disposal of Oak Ridge EM CERCLA wastes that meet the onsite waste acceptance criteria. We affirm our commitment to the recommendations provided by the board to DOE in May 2014 and in addition wish to provide recommendations that have become relevant given the revisions of the remedial investigation/feasibility study and evolving discussions among DOE, TDEC, and EPA. In sum, our recommendations are as follows:

1. Continue with planning for additional on-site disposal capacity for low-level radioactive and chemically hazardous contaminated waste.
2. Continue efforts to minimize the need for additional on-site capacity by using lessons learned and operational and disposal efficiencies from operation of EMWMF. This should consider all volume reduction possibilities.
3. Consider using contaminated soils authorized for disposal at the EMDF as fill instead of clean fill, which decreases disposal capacity for contaminated materials.
4. Consider methods for expanding EMWMF capacity as a way to assure the smallest possible footprint for the new disposal facility.
5. Ensure that the proposed disposal facility will have sufficient capacity to accept all appropriate future generated waste from DOE activities through cleanup of the ORR.
6. Ensure that the proposed facility is engineered to operate safely and that migration of contaminants into adjacent groundwater, soil, and air does not exceed environmental regulatory limits.
7. Locate the facility in proximity to existing waste burial grounds, if technically feasible, such that contaminated areas are consolidated on the ORR. Sites in Zone 2 and 3 at Y-12 are acceptable as options because they fit this criteria and are favorable in terms of transporting waste. The board does not support greenfield intrusion (e.g., Zone 1).
8. Ensure that a trust fund for long-term stewardship is established for any new disposal facility similar to that for EMWMF.

¹“Remedial Investigation/Feasibility Study for CERCLA Waste Disposal,” (DOE/OR/01-2535&D3*), <http://doeic.science.energy.gov/uploads/F.0615.029.0023.pdf>, *Latest version available

²“Recommendation on the Decision Process for Siting a Second CERCLA Waste Disposal Facility,” <http://energy.gov/orem/downloads/recommendation-200-actions-regarding-second-cercla-facility>

³“Recommendations on Additional Waste Disposal Capacity on the Oak Ridge Reservation.” <http://energy.gov/orem/downloads/recommendation-223-recommendations-additional-waste-disposal-capacity>

REPORTS & MEMOS

EM Project Update

ETTP	August	September
Zone 1 Final Soils ROD	Comments were received from EPA on the D1 ROD. TDEC requested an additional 30 days to comment.	A meeting was held with EPA and TDEC to discuss their comments on the D1 ROD.
Zone 2 Soil ROD	The PCCR for EU 6 was submitted to the regulators for review.	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 prepared.	An Explanation of Significant Differences to the Zone 2 ROD to address the management of water was transmitted to the regulators.
Sitewide ROD	Comments on the Treatability Study Work Plan Addendum were received from the regulators.	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.
K-25/K-27 D&D	The K-27 Building demolition was completed with a number of people on hand to witness the last wall fall. A total of 8,615 shipments of building debris went to EMWMF, which is 96 percent of estimated required shipments.	
	A total of 386 out of an estimated 580 boxes containing Technetium-bearing pipe have been shipped offsite for disposal.	
Remaining Facilities	The Waste Handling Plan Addendum for the Central Neutralization Facility was approved by the regulators.	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.
	The FY 2015 Low Risk/Low Complexity PCCR was approved by the regulators.	
ORNL	August	September
U-233 Disposition	The structural evaluation of Building 3017 and 3019 floor settling investigation was completed.	The Startup Notification Report for Building 3019 Complex, Fourth Quarter FY 2016 was approved.
	A three-month Authorization to Operate was granted for the General Support System boundary and National Security System boundary.	Building 3019 roof replacement continues and is approximately 98 percent complete. An investigation continues of structural settling issues in Building 3017 and 3019.
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	The PCCR for the Building 3042 Reactor Pool Seep was approved by the regulators.	
ORNL S&M		The PCCR for the FY 2015 S&M Waste Management was approved by the regulators.

EM Project Update

Y-12	August	September
Outfall 200 Mercury Treatment Facility	Work continued on the Final Design of the Outfall 200 Mercury Treatment Facility.	Outfall 200 site characterization fieldwork was completed; continued with Final Design.
Y-12 Facilities D&D	The Removal Action Work Plan Addendum for the removal of Column Exchange (COLEX) equipment was submitted to the regulators for review.	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.
	A Completion Letter for the Building 9808 Demolition was submitted to the regulators stating project completion.	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 Biology Complex Demolition WHP was submitted to the regulators for review.	
Off-Site Cleanup/Waste Management	August	September
TRU Waste Processing Center	The project processed more than 100 percent of the remote-handled TRU waste goal for the business month.	The General Site Technical Review (GSTR) resulted in no findings. 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.
EMWMF and EMDF		EPA, TDEC, and DOE continued working through informal dispute issues on the EMDF Remedial Investigation/Feasibility Study.
WRRP	Held a meeting with the regulators to discuss draft responses to comments on the FY 2016 Remediation Effectiveness Report.	The Five-Year Review was submitted to the regulators for approval.
ORR Groundwater Strategy	Development of a regional groundwater flow model and preparation for a September 2016 meeting of the Technical Advisory Group continued.	A meeting of the Technical Advisory Group was held to review the completed, calibrated regional groundwater flow model.
Reindustrialization	The final Covenant Deferral Request (CDR) for the Former Powerhouse, Duct Island, and P1 Pond Area was submitted to the regulators for approval. This addresses 652 acres at ETTP proposed for transfer to support economic development.	

Abbreviations for EM Project Update

D&D – decontamination and decommissioning
DOE – Department of Energy
EMDF – Environmental Management Disposal Facility
EMWMF – Environmental Management Waste Management Facility
EPA – Environmental Protection Agency
ETTP – East Tennessee Technology Park
EU – exposure unit
FY – fiscal year
ORNL – Oak Ridge National Laboratory
ORR – Oak Ridge Reservation
PCCR – Phased Construction Completion Report
ROD – Record of Decision
S&M – surveillance and maintenance
TDEC – Tennessee Department of Environment and Conservation
TRU – transuranic
WHP – Waste Handling Plan
WRRP – Water Resources Restoration Program

Travel Opportunities

Meeting/Event	Dates	Location	Reg. Cost	Website	Conference Lock Date; # Allocated Attendees	Deadline to Submit Requests
FY 2015						
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: _____)	March 5-9, 2017	Phoenix	TBD	www.wmsym.org	9/30/16 (2)	1/4/17
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: ___)	TBD	TBD	none		N/A	
RadWaste Summit (Pending requests: ___)	TBD	Summerlin, Nevada	TBD	http://www.exchangemonitor.com/forums/annual-radwaste-summit/	TBD	
DOE National Cleanup Workshop (Pending requests: ___)	TBD	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/brownfields/2017-national-brownfields-training-conference	N/A	

Shaded trips are closed



OAK RIDGE SITE SPECIFIC ADVISORY BOARD 2016 TRIP REPORT

August 29–September 2, 2016 | EM SSAB Fall Chairs Meeting | Las Vegas, NV

I. Name of Traveler:	Ashley Huff
II. Date(s) of Travel:	30 August–2 September 2016
III. Location of Meeting:	Las Vegas, Nevada
IV. Name of Meeting:	2016 EM SSAB Fall Chairs Meeting

V. Purpose of Travel:

To support DOE and ORSSAB at the semi-annual meeting of the EM SSAB. I assisted board members and DOE leadership throughout the conference, participated in staff meetings and training sessions led by DOE headquarters, and engaged in meaningful professional development opportunities.

VI. Discussion of Meeting:

I attended the fall meeting of the EM SSAB, which gathers leadership from each of the eight site-specific advisory boards organized under the EM SSAB to exchange ideas, share recent accomplishments and challenges, and participate in discussions of DOE’s ongoing missions at its major cleanup sites across the nation. Featured at this year’s fall meeting was a program update from Asst. Secretary for EM Monica Regalbuto, who spoke to the group about EM’s successes and the program’s future as well as recent reorganization efforts to increase accountability, strengthen strategic communications, and engage in a more “field-centric” approach to management.

Representatives from DOE headquarters presented on key topics for EM. David Borak, EM SSAB Designated Federal Officer, opened the meeting and also highlighted “news and views” from across the complex. Frank Marcinowski, Assoc. Principal Deputy Asst. Secretary for Regulatory & Policy Affairs, delivered two presentations, one on WIPP recovery and the TRU program and another on waste disposition and transportation. Connie Flohr, Deputy Asst. Secretary for Resource Management, and Lois Jessup, Director of the Office of Program Planning, gave an update on budget planning and an overview of strategic communications.

Board chairs presented recent accomplishments and highlighted future cleanup challenges for their sites during a “round robin” session. Leadership from the eight individual boards also collaborated on a transition document intended to guide the new administration in Washington, D.C., on critical needs and remaining work at individual sites from the collected perspectives of citizen stakeholders.

VII. Significance to ORSSAB:

The fall chairs meeting provides an important opportunity for ORSSAB staff and board members to learn about DOE’s cleanup efforts across the nation and to engage other staff and citizen stakeholders who serve on advisory boards elsewhere.

The meeting offered the chance to interact with leadership from Washington, D.C., which helped me to gain insights into EM's program goals as a whole, allowed me to exchange ideas with management, and inspired me to apply EM's larger initiatives (such as strategic communications) to our local operations at ORSSAB.

An added benefit of the conference was the chance to meet other advisory board members and staff from the local sites. I was able to strengthen professional contacts with individuals who can provide future opportunities for collaboration and act as resources of information, but I also saw familiar faces and made new friends with the people who help DOE's cleanup efforts succeed across the nation.

VIII. Names & Telephone Numbers of Significant Contacts:

Not Applicable.

IX. Action Items:

No new "charges to the chairs" were officially issued during the fall meeting. (New charges are expected at the next meeting of the EM SSAB in the spring). The general tone of the meeting, however, advocated the need for better "storytelling" across the DOE complex to adequately convey the progress on cleanup and, ultimately, to help secure congressional funding for future work. As EM wraps up a number of highly visible, large-scale demolition projects, a large portion of what remains to be dealt with is liquid tank waste. A large percentage of funding goes toward cleanup of liquid tank waste, but so much of it exists, some of which will require the development of new technologies before it can even be addressed, that corporate metrics often fail to account for the "whole story" of any progress made. For example, the progress on liquid waste removal does not lend itself to the same kind of visual story as the reindustrialization of the East Tennessee Technology Park. EM encouraged the individual advisory boards to share ideas for communication strategies that demonstrate reduced risk, cost savings, and project completion.

X. Traveler's Signature & Date:

Signature: 
Ashley Huff

Date: 9/7/16



Oak Ridge Site Specific Advisory Board

TRIP REPORT

- I. **Name of Traveler:** Belinda Price
- II. **Date(s) of Travel:** 30 August - 2 September 2016
- III. **Location of Meeting:** Las Vegas, Nevada
- IV. **Name of Meeting:** 2016 EM SSAB Fall Chairs Meeting
- V. **Purpose of Travel:** To represent ORSSAB at the semi-annual meeting of the EM SSAB. Participate in discussions and contribute to joint EMSSAB recommendations and in particular to the Transition Team White Paper.

VI. Discussion of Meeting:

I attended the fall meeting of the EM SSAB, which gathers leadership from each of the eight SSABs organized under the EM SSAB to exchange ideas, share recent accomplishments and challenges, and participate in discussions of DOE's ongoing missions at its major cleanup sites across the nation.

The first day consisted of a tour of the Nevada National Security Site (NNSS). The tour featured stops at significant locations related to the past mission (testing nuclear weapons) and the current mission (e.g. low-level waste disposal for the EM complex). It included stops at the United States Geological Survey Core Library, Frenchman Flat, the Area 5 Radioactive Waste Management Complex, and Yucca Flat (which included stops at Sedan Crater and Icecap Ground Zero).

The second and third days consisted of meetings and briefings (with question and answer sessions) from DOE headquarters representatives who presented on key topics for EM. Asst. Secretary for EM, Dr. Monica Regalbuto, gave a program update to the group focusing on EM's successes and the program's future as well as recent reorganization efforts to increase accountability, strengthen strategic communications, and engage in a more "field-centric" approach to management.

David Borak, EM SSAB Designated Federal Officer, opened the meeting and also highlighted "news and views" from across the complex. Frank Marcinowski, Assoc. Principal Deputy Asst. Secretary for Regulatory & Policy Affairs, delivered two presentations, one on WIPP recovery and the TRU program and another on waste disposition and transportation. Connie Flohr, Deputy Asst. Secretary for Resource Management, and Lois Jessup, Director of the Office of Program Planning, gave an update on budget planning and an overview of strategic communications.

Board chairs presented recent accomplishments and highlighted future cleanup challenges for their sites during a “round robin” session.

Leadership from the eight individual boards also collaborated on a White Paper intended to be presented to the transition team to guide the new administration in Washington, D.C., on critical needs and remaining work at individual sites from the collected perspectives of citizen stakeholders.

VII. Significance to ORSSAB:

This trip was important to ORSSAB because it allowed our voice to be included in the transition White Paper. In addition it continued to enhance my understanding of the cleanup efforts of EM over the whole complex. The briefing on the WIPP Recovery was particularly useful with respect to the path forward for disposal of TRU waste.

Putting the cleanup progress at the ORR into context with the EM complex as a whole is enlightening and in particular is useful for understanding the budget allocations to ORR cleanup in relation to other sites.

VIII. Names & Telephone Numbers of Significant Contacts:

Not Applicable

IX. Action Items:

The Spring Chairs meeting will be held in Paducah, Kentucky. ORSSAB members should be encouraged to participate in this and other available meetings that enhance their understanding of the DOE EM process and cleanup progress at other DOE sites. Further, participation in these types of meetings allows members to meet other SSAB members from around the DOE complex which is beneficial to the SSAB community as a whole.

X. Traveler’s Signature & Date:

Signature: 
Belinda Price

Date: 10/3/2016



Oak Ridge Site Specific Advisory Board

TRIP REPORT

- I. **Name of Traveler:** David Hemelright
- II. **Date(s) of Travel:** 30 August - 2 September 2016
- III. **Location of Meeting:** Las Vegas, Nevada
- IV. **Name of Meeting:** 2016 EM SSAB Fall Chairs Meeting
- V. **Purpose of Travel:**

To represent ORSSAB at the semi-annual meeting of the EM SSAB. Participate in discussions and contribute to joint EMSSAB recommendations and in particular to the Transition Team White Paper and say a “farewell” to friends from the other seven (7) sites that will no longer be attending the Chair’s meetings as term limits will dictate that we not see each other again.

VI. **Discussion of Meeting:**

I attended the fall meeting of the EM SSAB, which gathers leadership from each of the eight SSABs organized under the EM SSAB to exchange ideas, share recent accomplishments and challenges, and participate in discussions of DOE’s ongoing missions at its major cleanup sites across the nation.

Rather than directly plagiarizing Ms Price’s trip report, as we were in the same room for all meetings, attended the same events and tours, and had the same conclusions and collaborations it would be easy to say “ditto”. Instead, I will digress. Over the last five (5) years attending these Chairs’ meetings at all the other clean-up sites, save Portsmouth, I have developed a friendship and working relationship with many of the leadership of the various sites. This was probably the last chance to interact with them on a professional and social level, as the term limits of board members dictates that “new” members replace the old. That is a shame, for just as us “older” members become familiar with our roles as board members and our roles as leaders of our own boards, we are asked to depart, and thanked for a “job well done”. There is an old Pennsylvania Dutch (German) expression, “*Too soon ve grow olt, and too late schmart*”, which aptly conveys the message. As we grow into fully understanding our roles, we must move on.

Personally, I took advantage of the time in Las Vegas to say a fond “Farewell” to folks I have worked closely with over the last five (5) years. Nevada, Los Alamos, Idaho, Paducah, Savannah River are losing good members, and I have the memories of good friends from those sites that

will last forever. Thank you, Friends, you have enlightened my life's experience.

VII. Significance to ORSSAB:

This trip was important to ORSSAB because it allowed our voice to be included in the transition White Paper. In addition it continued to enhance my understanding of the cleanup efforts of EM over the whole complex. The briefing on the WIPP Recovery was particularly useful with respect to the path forward for disposal of TRU waste.

Putting the cleanup progress at the ORR into context with the EM complex as a whole is enlightening and in particular is useful for understanding the budget allocations to ORR cleanup in relation to other sites.

VIII. Names & Telephone Numbers of Significant Contacts:

None

IX. Action Items:

The Spring Chairs meeting will be held in Paducah, Kentucky. ORSSAB members should be encouraged to participate in this and other available meetings that enhance their understanding of the DOE EM process and cleanup progress at other DOE sites. Further, participation in these types of meetings allows members to meet other SSAB members from around the DOE complex which is beneficial to the SSAB community as a whole.

X. Traveler's Signature & Date:

Signature: *David Hemelright* Date: 10/10/2016



Oak Ridge Site Specific Advisory Board

TRIP REPORT

- I. Name of Traveler: Belinda Price**
- II. Date(s) of Travel: September 13-15 2016**
- III. Location of Meeting: Alexandria, VA**
- IV. Name of Meeting: National Cleanup Workshop**
- V. Purpose of Travel: Attend meeting**

VI. Discussion of Meeting:

I attended the two-day 2016 National Cleanup Workshop in Alexandria, VA. This workshop consisted of presentations and panel discussions on various topics related to DOE EM cleanup across the complex. There were about 550 attendees including personnel from DOE, contractors, state and local government, and stakeholders (including representatives from affected Tribes, communities and advisory groups). I met several people from other SSABs and from the EM Advisory Board. Oak Ridge was well represented. On the first day, Representative Fleischmann gave a presentation on the House Nuclear Cleanup Caucus, which he Chairs; and Sue Cange, Manager of the Oak Ridge Office of EM and Ken Reuter, President of UCOR gave presentations during one of the workshops that focused on EM Successes. On the second day Dr. Shari Meghreblian, Deputy Commissioner for TDEC was a member of a panel focusing on regulatory approaches that enable cleanup progress and Ron Woody, Roane County Executive was part of the panel that discussed how to build the next-generation of the EM workforce. A common theme seemed to be partnering and communication was key to success.

The exhibits included informal discussion opportunities and demonstrations from contractors and suppliers to DOE EM.

VII. Significance to ORSSAB:

This trip was important to me because it helped enhance my understanding of the cleanup efforts of EM over the whole complex, particularly how the appropriations process will likely move forward for FY17.

VIII. Names & Telephone Numbers of Significant Contacts:

Not Applicable

IX. Action Items:

ORSSAB members should be encouraged to participate in meetings that enhance their understanding of the DOE EM process and cleanup progress at other DOE sites. Further, participation in these types of meetings allows members to meet other SSAB members from around the DOE complex which is beneficial to the SSAB community as a whole.

X. Traveler's Signature & Date:

Signature: Belinda Price
Belinda Price

Date: 9/16/2016