

# Oak Ridge Site Specific Advisory Board Monthly Meeting



**Wednesday, May 11, 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.

# CONTENTS

## AGENDA

PRESENTATION MATERIALS—To be distributed prior to or at the meeting.

## CALENDARS

1. May
2. June (*draft*)
3. Work plan schedule of meetings

## BOARD MINUTES/RECOMMENDATIONS & MOTIONS

1. February 10, 2016, unapproved meeting minutes
2. March 9, 2016, unapproved meeting minutes
3. Recommendations on the FY 2018 DOE Oak Ridge Environmental Management Budget Request
4. SSAB Chairs Recommendation on EM SSAB Funding
5. SSAB Chairs Recommendation on Community Investment as a Factor in the Contract Proposal Evaluation Process

## REPORTS & MEMOS

1. EM Project Update
2. Abbreviations/Acronyms for EM Projects Update
3. Travel Opportunities for FY 2016
4. Trip Reports

# AGENDA



**Oak Ridge Site Specific Advisory Board**  
**Wednesday, May 11, 2016, 6:00 p.m.**  
**DOE Information Center**  
**1 Science.gov Way, Oak Ridge, Tenn.**

**AGENDA**

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- I. Welcome and Announcements (B. Price) ..... 6:00–6:05
  - A. June Presentation Topic: Technology Development to Support the DOE Mercury Cleanup Strategy (Issue Group Members: Price, Trujillo, Wilson)
  - B. Presentation of Service Awards to Student Representatives (S. Cange)
  - C. Introduction of New Student Representative (S. Cange)
  
- II. Comments from the Deputy Designated Federal Officer, and EPA and TDEC Liaisons (S. Cange, C. Jones, K. Czartoryski) ..... 6:05–6:15
  
- III. Public Comment Period (D. Hemelright) ..... 6:15–6:25
  
- IV. Presentation: Environmental Management Disposal Facility (Brian Henry) (Issue Group Members: Cook, Hatcher, Smalling, Trujillo, Wilson)..... 6:25–6:50
  - Question and Answer Period ..... 6:50–7:05
  
- V. Call for Additions/Approval of Agenda ..... 7:05
  
- VI. Motions ..... 7:05–7:10
  - A. February 10, 2016, Meeting Minutes (D. Hemelright)
  - B. March 9, 2016, Meeting Minutes (D. Hemelright)
  - C. Recommendations on the FY 2018 DOE Oak Ridge Environmental Management Budget Request (E. Trujillo)
  - D. SSAB Chairs Recommendation on EM SSAB Funding (B. Price)
  - E. SSAB Chairs Recommendation on Community Investment as a Factor in the Contract Proposal Evaluation Process (B. Price)
  
- VII. Responses to Recommendations & Comments (D. Adler)..... 7:10–7:15
  
- VIII. Committee Reports..... 7:15–7:20
  - A. EM/Stewardship (B. Hatcher, E. Trujillo)
  - B. Executive (B. Price)
  
- IX. Alternate DDFO’s Report (M. Noe) ..... 7:20–7:25
  
- X. Additions to Agenda & Open Discussion..... 7:25–7:30
  
- XI. Adjourn ..... 7:30

# PRESENTATION MATERIALS

Presentation to be  
distributed at or prior  
to meeting

# CALENDARS



## Oak Ridge Site Specific Advisory Board

# May 2016

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4 Executive Committee meeting 6 p.m.	5	6	7
8	9	10	11 Monthly SSAB meeting 6 p.m.	12	13	14
15	16	17	18	19	20	21
22	23	24	25 Environmental Management & Stewardship Committee meeting 6 p.m.	26	27	28
28	30 Memorial Day Staff Holiday	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

Board meetings on cable TV and YouTube	
<b>Knoxville:</b> Charter Channel 6, Comcast Channel 12	Sunday, May 22 and 29 at 10 p.m.
<b>Lenoir City:</b> Charter Cable Channel 193	Wednesdays, 4 p.m.
<b>Oak Ridge:</b> Channel 12	Monday, May 30, 7 p.m.
<b>Oak Ridge:</b> Channel 15	Monday, Wednesday, Friday, 8 a.m. & noon
<b>YouTube</b>	<a href="http://www.youtube.com/user/ORSSAB">http://www.youtube.com/user/ORSSAB</a>





# Oak Ridge Site Specific Advisory Board

## June 2016

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 Executive Committee meeting 6 p.m.	2	3	4
5	6	7	8 Monthly SSAB meeting 6 p.m.	9	10	11
12	13	14	15	16	17	18
19	20	21	22 Environmental Management & Stewardship Committee meeting 6 p.m.	23	24	25
26	27	28	29	30		

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

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Board meetings on cable TV and YouTube	
<b>Knoxville:</b> Charter Channel 6, Comcast Channel 12	Sunday, June 19 and 26 at 10 p.m.
<b>Lenoir City:</b> Charter Cable Channel 193	Wednesdays, 4 p.m.
<b>Oak Ridge:</b> Channel 12	Monday, June 27, 7 p.m.
<b>Oak Ridge:</b> Channel 15	Monday, Wednesday, Friday, 8 a.m. & noon
<b>YouTube</b>	<a href="http://www.youtube.com/user/ORSSAB">http://www.youtube.com/user/ORSSAB</a>

### FY 2016 ORSSAB Work Plan/Schedule

Date	Event	Topic	Presenter	Location
<b>OCTOBER 2015</b>				
Wed., 10/7	Executive	Work plan rollout		DOEIC
Wed., 10/14	Monthly meeting	Progress at ETTP	Cain	DOEIC
TBD	Site tour	On-site tour Q&A		ETTP
Wed., 10/28	EM/Stewardship	Work plan rollout; ETTP Zone 1 Proposed Plan detailed discussion		DOEIC
<b>NOVEMBER</b>				
Wed., 11/4	Executive	General business		
Tues., 11/10	Monthly meeting	The Federal Oversight Model-Ensuring a Safe Work Environment <i>(Meeting date changed due to Veteran's Day on 11/11)</i>	Armstrong	Dinner meeting Chuy's Restaurant, 9235 Kingston Pike, Knoxville
	Site tour	<i>(No site tour)</i>		
Wed., 11/25	EM/Stewardship	<i>(No meeting—due to upcoming Thanksgiving holiday)</i>		
<b>DECEMBER</b>				
Wed., 12/2	Executive	<i>(No meeting)</i>		
Wed., 12/9	Monthly meeting	<i>(No meeting)</i>		
	Site tour	<i>(no site tour)</i>		
Wed., 12/23	EM/Stewardship	<i>(No meeting—due to holidays)</i>		
<b>JANUARY 2016</b>				
Wed., 1/6	Executive	General business		DOEIC
Wed., 1/13	Monthly meeting	Waste Management	McMillan/Henry/DeMonia	DOEIC
TBD	Site tour	On-site tour/Q&A		TWPC
Wed., 1/27	EM/Stewardship	Waste Management detailed discussion		DOEIC
<b>FEBRUARY</b>				
Wed., 2/3	Executive	General business		DOEIC
Wed., 2/10	Monthly meeting	Groundwater Monitoring Program	McMillan	DOEIC
TBD	Site tour	On-site tour/Q&A		ORR
Wed., 2/24	EM/Stewardship	Groundwater Monitoring Program presentation detailed discussion		Leidos offices

<b>Date</b>	<b>Event</b>	<b>Topic</b>	<b>Presenter</b>	<b>Location</b>
<b>MARCH</b>				
Wed., 3/2	Executive	General business		DOEIC
Wed., 3/9	Monthly meeting	FY 2018 Budget Formulation and Prioritization of Projects	Thompson	DOEIC
	Site tour	<i>(No site tour)</i>		
Wed., 3/23	EM/Stewardship	FY 2018 Budget Formulation and Prioritization of Projects detailed discussion		DOEIC
<b>APRIL</b>				
Wed., 4/6	Executive	General business		DOEIC
Wed., 4/13	Monthly meeting	(No ORSSAB monthly meeting due to Chairs meeting)		
Tues., 4/19	Chairs meeting tour	Chairs meeting tour		ORR
Wed., 4/20 Thurs., 4/21	Chairs meeting	Chairs meeting		DoubleTree, Oak Ridge
TBD	Community budget workshop	Community Budget Workshop		TBD
Wed., 4/27	EM/Stewardship	Community budget workshop detailed discussion		DOEIC
<b>MAY</b>				
Wed., 5/4	Executive	General business		DOEIC
Wed., 5/11	Monthly meeting	EM Disposal Facility (EMDF)	Henry	DOEIC
TBD	Site tour	On-site tour Q&A		EMDF/EMWMF
Wed., 5/25	EM/Stewardship	EMDF detailed discussion		DOEIC
<b>JUNE</b>				
Wed., 6/1	Executive	General business		DOEIC
Wed., 6/8		Technology Development to Support Mercury Cleanup Strategy	Wilkerson/Darby/Peterson	DOEIC
TBD	Site tour	On-site tour Q&A		
Wed., 6/22	EM/Stewardship	Technology Development to Support Mercury Cleanup Strategy detailed discussion		DOEIC
<b>JULY</b>				
Wed., 7/6	Executive	Annual meeting planning		DOEIC
Wed., 7/13	New member training	(No ORSSAB monthly meeting)	Adler	DOEIC
TBD	Site tour	New Member Tour	Adler	ORR
Wed., 7/27	EM/Stewardship	<i>(No meeting)</i>		DOEIC

<b>Date</b>	<b>Event</b>	<b>Topic</b>	<b>Presenter</b>	<b>Location</b>
<b>AUGUST</b>				
Wed., 8/3	Executive	Annual meeting planning		DOEIC
Wed., 8/10	Monthly meeting	(No ORSSAB monthly meeting due to Annual meeting)		
Sat., 8/13	Annual meeting	Annual meeting		TBD
	Site tour	<i>(No site tour)</i>		
Wed., 8/24	EM/Stewardship	<i>(No meeting)</i>		
<b>SEPTEMBER</b>				
Wed., 9/7	Executive	General business		DOEIC
Wed., 9/14	Monthly meeting	Vision 2020-Planning for the Future of ETTP including Reuse, Historic Preservation and Stewardship	Cain/Adler/Cooke	DOEIC
TBD	Site tour	On-site tour/Q&A		ETTP
Wed., 9/28	EM/Stewardship	Vision 2020-Planning for the Future of ETTP including Reuse, Historic Preservation and Stewardship detailed discussion		DOEIC

# BOARD MINUTES/ RECOMMENDATIONS

DRAFT

*Many Voices Working for the Community*



# Oak Ridge Site Specific Advisory Board

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## **Unapproved February 10, 2016 Meeting Minutes**

The Oak Ridge Site Specific Advisory Board (ORSSAB) held its monthly meeting on Wednesday, February 10, 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 241-4584. The presentation portion of the video is available on the board's YouTube site at [www.youtube.com/user/ORSSAB/videos](http://www.youtube.com/user/ORSSAB/videos).

### **Members Present**

Leon Baker

Richard Burroughs

Alfreda Cook, Vice Chair

Martha Deaderick

Kennetha Eikelberg

Mike Ford

Bob Hatcher

David Hemelright, Secretary

Donald Mei

Greg Paulus

Belinda Price, Chair

Elizabeth Ross

Scott Stout

Ed Trujillo

Dennis Wilson

### **Members Absent**

Howard Holmes

Jennifer Kasten

Mary Smalling

Wanfang Zhou

### **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)

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

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

Carl Froede, Environmental Protection Agency (EPA) Region 4 (via telephone)

Melyssa Noe, ORSSAB Alternate Deputy Designated Federal Officer (DDFO), Department of Energy, Oak Ridge Office of Environmental Management (DOE-OREM)

### **Others Present**

Sophia Cui, Student Representative

Spencer Gross, ORSSAB Support Office

Ashley Huff, ORSSAB Support Office

Dennis Mayton, DOE

Pete Osborne, ORSSAB Support Office

Twelve members of the public were present.

### **Liaison Comments**

Mr. Adler –

- In a ceremony on February 8, DOE initiated demolition of building K-27, the last remaining gaseous diffusion building at East Tennessee Technology Park (ETTP). Several board members attended. The event marks a major milestone in environmental cleanup. Once demolition is complete, ETTP will be the first site in the country to have successfully removed an entire gaseous diffusion plant complex. OREM expects operations to conclude by the end of the calendar year, possibly by October 2016.
- President Barak Obama released the FY 2017 budget and proposed \$391 million for the EM Program in Oak Ridge. For perspective, in FY 2016 the proposed budget for EM Oak Ridge was approximately \$365 million, and Congress elected to give \$470 million.
- A public hearing on the “Final Proposed Plan for Soils in Zone 1 at ETTP” has been set for February 25. The meeting will take place at the DOE Information Center. Board members are invited to attend. ORSSAB staff will provide information regarding the time of the meeting as it becomes available.

Ms. Jones – No comment.

Mr. Czartoryski – No comment.

### **Public Comment**

None.

### **Presentation**

Dennis Mayton, DOE Groundwater Program Project Manager, discussed the “Groundwater Strategy Status,” highlighting the challenges of managing legacy contamination and updating the board on current groundwater assessments and monitoring procedures across the Oak Ridge Reservation (ORR). Mr. Mayton’s presentation (Attachment 1) focused on two key program initiatives, Off-Site Groundwater Assessment and Regional Groundwater Modeling.

### **Background**

A strategy for managing legacy groundwater began in 2013, initiated by a set of workshops that brought together regulators (EPA and TDEC) and DOE to combine their efforts in tackling the challenges of legacy groundwater contamination in Oak Ridge. The group identified 35 suspect plumes, or pockets of underground water, as projects for consideration. The plumes range in depths of a few feet to a thousand feet below ground. Most of them are located near the industrial areas of ETTP, Oak Ridge National Laboratory, and Y-12 National Security Complex (Y-12), as well as ORR burial grounds. The group ranked projects on a hazard ranking system, which took into account such factors as plume size, concentrations of contaminants within the plume, and the potential for a plume to migrate onto private property (Slide 2). Based on the group’s findings and project hazard rankings, DOE, EPA, and TDEC produced and agreed upon a “Groundwater Strategy” document in 2014.

DOE launched the Groundwater Program in 2014 to implement the combined strategy determined by the group. The program now funds a full-time hydrogeologist with technical support and systematically prioritizes and investigates plumes to determine what actions may be necessary. The program undertook two major projects (outlined below) in its first year: an off-site groundwater assessment and the development of a regional groundwater flow model.

## Progress on Off-Site Groundwater Assessment

### *Objectives*

The off-site groundwater assessment project identified two objectives:

- To collect, validate, and verify water quality data from off-site wells and springs.
- To collect enough data so that if any contamination was found, researchers could determine if it originated from ORR (Slide 3).

### *Methods & Results*

In 2014 DOE agreed upon a work plan that outlined the sampling areas and identified parameters for testing. However, before implementing the plan, DOE conducted site visits and obtained access agreements from homeowners (Slide 4).

The first sampling event in spring of FY 2015 assessed 43 locations. The results, discussed in depth at the June 10, 2015, ORSSAB meeting, are summarized as follows. Three locations of the 43 sampled exceeded U.S. EPA National Primary Drinking Water Standards for lead, gross alpha and combined radium -226 and -228. However, some of the contaminants found, such as lead and radon, also occur naturally, and an increased level of lead in particular could also be attributed to collection methods, such as filtering or not filtering the water and adjusting the rate of water flow during collection. For instance, later sampling events, which used a lower rate of flow and, as a result, stirred up less sediment in wells, returned lower readings of lead levels.

Since the last ORSSAB briefing, there have been two additional sampling events. In August-September 2015, 49 locations were sampled, 34 of which were residential drinking wells and the remaining 15 were springs. None of the samples exceeded any drinking water standards; all results have been verified and validated. DOE shared the results of the second sampling event with EPA and TDEC. In keeping with the objectives of the Groundwater Strategy work plan, in collaboration with regulators DOE selected several locations to undergo further confirmation sampling. This third confirmatory sampling event concluded in February 2016. Eighteen locations were revisited, ten wells and eight springs. Results are pending, as the samples are currently undergoing analysis.

Based on the current Groundwater Strategy work plan, all sampling for the off-site groundwater assessment project is complete. However, additional sampling could occur if the evaluation of data and discussions with the regulators determine additional sampling is needed.

DOE expects to have the results of the final confirmatory sampling within a month (expected March 2016). These results will first be verified and validated, and then shared with EPA and TDEC to determine what, if any, future actions are necessary for off-site groundwater assessment. Expect a meeting of the three organizations in the spring. The Federal Facility Agreement requires a report on the assessment, which is due in November 2016.

## Progress on Regional Groundwater Flow Model

### *Objectives*

The second project undertaken by DOE's Groundwater Program was to develop a regional groundwater flow model that could be used to support groundwater decisions for EM sites and provide insights for future cleanup operations.

### *Methods & Results*

In 2014 a Technical Advisory Group was formed with representatives from DOE, EPA, TDEC, and other industry experts. The group collected data, identified the boundaries of the model, and constructed a test case model, based on a small area within the regional boundaries (see Slide 7), before beginning work on a full scale model.



In 2015 the group completed the test case model and created the geologic framework for the regional model, using EarthVision software to render 3D visualizations of the underground geology and MODFLOW-USG software to produce the regional model. An uncalibrated model is currently in beta testing. The group expects to implement full scale calibration later in the year and to ultimately produce a draft report on the regional flow model (Slide 8).

*After the presentation, board members posed the following questions:*

Mr. Hatcher asked: Are you going to try to integrate groundwater data from the Clinch River site? Mr. Mayton directed the question to Lynn Sims, UCOR, who confirmed that the data collected from the Clinch River site are being considered in the regional flow model. Mr. Adler added that water quality data are shared among organizations. DOE, Tennessee Valley Authority, and the State of Tennessee all collaborate on data samples.

Ms. Cook asked for clarification of the MODFLOW graphic on (Slide 8): Can you explain what the graphic represents? Mr. Mayton said the graphic visualizes geological layers, the dipping of the bedrock, and it distinguishes the layers in underground rock formations.

Mr. Paulus asked for more information regarding the sampling events (Slide 5) in which results exceeded EPA Drinking Water Standards: By how much were the drinking water standards exceeded in the first sampling? Did these locations pass drinking water standards in the second sampling event? Ms. Sims responded, saying she did not recall exact numbers, but they were close to meeting the EPA Drinking Water Standards. Mr. Mayton responded to the follow-up question and confirmed that these locations were retested during the second sampling event and did pass inspection at that time.

Mr. Trujillo asked if the predictive modeling for regional groundwater flow includes some type of risk management or probability assessment. Could it be used to estimate, such as by percentage, the likelihood that a nearby unsampled area would contain contaminated groundwater? Mr. Mayton said that the model is currently used to predict if a plume has the potential to travel to a location and pose a contamination hazard, for instance, if a homeowner were to pump a well and essentially pull the plume to a new area.

Ms. Cook asked a follow-up question regarding the lead levels found in the first sampling event, which had returned to acceptable levels by the time of the second sampling event. In such an instance, are residents notified that lead was initially detected in the area? Mr. Adler verified that residents are notified concerning water quality. Once validated, all data are provided promptly. DOE mails letters and data packages to homeowners whose wells are tested. Ms. Sims added that DOE and TDEC work closely with the Tennessee Department of Health in notifying homeowners of these results. Mr. Czartoryski elaborated on this point, explaining that TDEC collaborates with DOE and coordinates response letters to residents, and furthermore takes care to avoid alarm when notifying residents of these results by including additional resources and contacts within the health department for residents to access more detailed information or instructions. Mr. Mayton provided an additional point to alleviate residents' concerns about lead levels. He noted that all of these samples are collected at the exit of the well before any of the water goes through filtration systems that homeowners may have in place, and which would likely filter out these contaminants.

Mr. Hemelright asked if the off-site wells have been eliminated from use by residents. Mr. Adler explained that all residents within a zone marked by DOE for groundwater concerns, sometimes referred to as the "zone of generosity," are given free city water, paid for by DOE, and instructed not to use their existing wells for drinking water.

Mr. Hatcher asked about DOE's plans to build another well off-site. Mr. Adler stated that new on- or off-site wells are potential projects. However, DOE, EPA, and TDEC are currently discussing the path forward and how best to allocate funds for the Groundwater Program. Other possibilities include further study of groundwater migration patterns or addressing on-site plume issues.

Mr. Paulus inquired about the statute of limitations on free public water for residents. Mr. Adler elaborated, saying that DOE determined any homeowners who had previously used free groundwater (from residential wells) would not see a cost increase as a result of DOE's implementation of the Groundwater Strategy. For every resident using a well for drinking water, DOE has entered into a 5-year contract to provide city water at no cost to residents. Mr. Paulus redirected, focusing on the potential for residents to draw from their existing wells, regardless of the agreement for free public water, and essentially risk migration of contaminated groundwater across the Clinch River. Mr. Adler stated that by entering into the agreement with DOE, residents foreswear their use of existing wells. However, these contracts are voluntary for residents, and some have elected to use wells for commercial applications, such as irrigation.

Ms. Eikelberg asked for clarification of sampling methods. What do you sample? Are you only collecting water samples or do you sample sediment as well? Mr. Mayton explained that only the water is sampled. The sampling is done by agreement with homeowners, and as such, measures are taken to preserve the integrity of the wells. Sediment sampling poses a high risk in damaging these wells. Ms. Eikelberg followed, asking if the sediment has a potential to travel to other areas. Mr. Adler stated that off-site monitoring does not currently include sediment sampling; however, some general monitoring of sediment mobilization occurs for the Clinch River. Very little migration has been observed, he added.

Ms. Price added to the discussion of groundwater sampling, providing insights on sampling techniques. One method involves collecting water from the well, filtering the sample, and analyzing only the water itself, rather than any of the fine solids or detritus from the well that may otherwise be present in the sample. Low-flow sampling, collecting water from a reduced flow rate, provides a sample with less "sediment." Ms. Price stressed, in particular, that "sediment" in this case refers to fine particulates within the well, which would be filtered out of drinking water, rather than the sediment on the ground surface. Mr. Mayton added that these wells are sealed from the surface, and thus no sediment from the ground surface is being introduced. Generally, commercial monitoring wells are built with sand packs and other filtration to keep these particulates out of the well, but because these are off-site residential wells, many of them do not have that kind of filtration system in place. Therefore, low-flow sampling is done to mitigate the lack of filtration systems standard in commercial monitoring wells.

Ms. Cook asked if the off-site wells should be plugged to reduce the risk of further contamination. Both Mr. Mayton and Mr. Adler explained that plugging wells would violate DOE's 5-year agreements with homeowners. Residents have installed these wells often at great expense. While DOE would like to prevent homeowners from pumping wells and has entered into voluntary agreements with homeowners directed toward that goal, a ban on groundwater would be more aggressive than DOE currently feels necessary. Also, the potential exists for these wells to be released for free use again if the determination is made that groundwater quality is no longer a concern. As an additional data point in favor of a moderate approach, Mr. Adler verified that all of the detections found for radionuclides with ORR signatures were below drinking water standards, so in no instance were residents drinking from a well where drinking water standards were exceeded.

Mr. Trujillo asked about the connection between groundwater sampling and regional flow modeling. How are the two projects interrelated? Mr. Adler clarified that the two projects are separate but are complementary activities and can inform future decisions concerning DOE's Groundwater Strategy.

Mr. Hemelright asked how long water agreements have been in effect with homeowners and when these would expire. Mr. Mayton responded, saying that agreements are staggered, but the first agreements were in place in 2009. DOE has renewed many of those agreements, some within the last month, so there will be at least another 5 years on agreements as of 2016.

Ms. Ross inquired about the financial impact on the sale of homes as a result of groundwater monitoring. Has residential property been stigmatized as a result? Mr. Adler said that real estate regulations require results of groundwater sampling be disclosed to potential buyers, but he observed that property continues to be bought and sold in the impacted areas. He made no guess as to the effect on property value or the sales price of homes.

*Following the questions posed by the board, members of the public posed the following questions:*

Mary Anne Koltowich of the Roane County Environmental Review Board asked about the general location(s) of the three wells mentioned as having exceeded EPA Drinking Water Standards during a first sampling event in FY 2015. Mr. Mayton and Mr. Adler agreed to follow up on the question and provide a general indication of the areas, as allowed with respect to privacy laws.

### **Committee Reports**

#### **EM & Stewardship**

- A follow-up discussion addressed the January 13 ORSSAB presentation on waste disposal, combined with a tour of EM landfills at Y-12. The tour, led by Mr. Adler, was found to be immensely helpful in clarifying cleanup operations and answering questions regarding the potential for a new waste management facility.
- The committee explored the possibility of a recommendation on waste management and reached a consensus to wait until DOE has made a formal presentation on their proposal in the spring before a determination is made regarding a board recommendation.
- The next EM & Stewardship Committee meeting is scheduled for February 24. Discussion will follow on the February 10 groundwater presentation. The committee is considering the possibility of meeting in the field, and potentially touring a groundwater site, in lieu of its regular meeting. Interested parties should notify Ashley Huff at [Ashley.Huff@orem.doe.gov](mailto:Ashley.Huff@orem.doe.gov) or (865) 241-4584.

#### **Executive**

- The Nuclear Waste Technical Review Board will meet in Knoxville, Tenn. on February 17, 2016. For more information, visit <http://www.nwtrb.gov/>.
- The comment period for board members to review the K-25 Virtual Museum has closed. Mr. Hemelright has collected the comments, which will be formally presented to DOE this month.
- Planning continues for the EM SSAB Spring Chairs Meeting in April. A “Save the Date” is included in the February 10 meeting materials packet. The next agenda planning call with headquarters will be February 11. Ms. Price and Ms. Cook will participate. A draft agenda will be provided to the board. Board members are encouraged to supply comments or suggestions for topics to Ms. Price.
- The next meeting of the Executive Committee is scheduled for March 2 at 6 p.m.

### **Announcements and Other Board Business**

- Two new board members were welcomed at the February 10 meeting, Kennetha Eikelberg and Elizabeth Ross, both of Knoxville, Tenn.
- A tour related to the Groundwater Monitoring Program is being considered for February. ORSSAB staff will provide more details as they become available. Interested board members should notify Ashley Huff at [Ashley.Huff@orem.doe.gov](mailto:Ashley.Huff@orem.doe.gov) or (865) 241-4584.
- ORSSAB's next scheduled meeting will be Wednesday, March 9, 2016, at 6 p.m. at the DOE Information Center. The topic will be "FY 2018 Budget Formulation and Prioritization Projects."
- The minutes of the January 13 meeting were approved.

### **Alternate DDFO Report**

Ms. Noe provided an update on the planning for the EM SSAB Spring Chairs Meeting, which will be held in Oak Ridge, Tenn., at the DoubleTree Hotel on April 19-21. An event website will launch mid-February and will allow online registration as well as provide additional information. A free ORR tour highlighting EM projects is scheduled for Tuesday, April 19. A catered networking meeting (requires ticket purchase) is scheduled for Wednesday, April 20 at the Event Center on the River (formerly Riverside Grille). Board members will be able to register for either of these events on the website. ORSSAB staff will notify the board as soon as registration opens.

### **Motions**

#### **2/10/16.1**

Mr. Paulus moved to approve the minutes of the January 13, 2016. Mr. Baker seconded and the motion passed **unanimously**.

### **Action Items**

#### *Open Action Items*

1. Mr. Hemelright will solicit responses from absentee members. (*Carryover from 1/13/16*).
2. Mr. Mayton and Mr. Adler will supply a response to Ms. Koltowich concerning her question on the location of wells referenced in the first sampling event for the off-site groundwater assessment project.

The meeting adjourned at 7:22 p.m.

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 February 10, 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

## DRAFT

*Many Voices Working for the Community*



# Oak Ridge Site Specific Advisory Board

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### Unapproved March 9, 2016 Meeting Minutes

The Oak Ridge Site Specific Advisory Board (ORSSAB) held its monthly meeting on Wednesday, March 9, 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 241-4584. The presentation portion of the video is available on the board's YouTube site at [www.youtube.com/user/ORSSAB/videos](http://www.youtube.com/user/ORSSAB/videos).

#### Members Present

Leon Baker	Howard Holmes	Scott Stout
Richard Burroughs	Jennifer Kasten	Ed Trujillo
Alfreda Cook, Vice Chair	Donald Mei	Dennis Wilson
Kennetha Eikelberg	Greg Paulus	Wanfang Zhou
Mike Ford	Elizabeth Ross	
Bob Hatcher	Mary Smalling (by phone)	

#### Members Absent

Martha Deaderick  
David Hemelright, Secretary  
Belinda Price, Chair

#### Liaisons, Deputy Designated Federal Officer, and Alternates Present

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

#### Others Present

Spencer Gross, ORSSAB Support Office  
Ashley Huff, ORSSAB Support Office  
Alana Joldersma, Student Representative  
Pete Osborne, ORSSAB Support Office  
Karen Thompson, DOE

Six members of the public were present.

#### Liaison Comments

Ms. Noe –

- Several members of the board, as well as representatives from DOE, are representing Oak Ridge at the 2016 Waste Management Conference in Phoenix, Arizona, and thus are not in attendance at the March 9 meeting. This year the conference highlighted Oak Ridge as a DOE featured site, and members of both ORSSAB and OREM will participate in special topic panels focused on cleanup efforts in Oak Ridge.

- Demolition work continues on schedule at Building K-27, the last remaining gaseous diffusion building at East Tennessee Technology Park (ETTP).
- Preparations continue for the 2016 Spring Chairs Meeting, which will take place in Oak Ridge on April 19-21. (Details provided below in the Alternate DDFO Report).
- An FY 2018 budget workshop is scheduled for spring and will be similar to those organized by DOE for the past two years. Exact dates for the workshop will be provided to the board when established.

**Mr. Crane** – Due to technical difficulties, Mr. Crane’s comments via conference call were not audible. EPA’s comments, if any are supplied, will be provided to the board separately when available.

**Mr. Czartoryski** – No comment.

### **Public Comment**

None.

### **Presentation**

Karen Thompson, Branch Chief for Planning and Baseline Management Branch, DOE-OREM, discussed “FY 2018 DOE-OREM Program Budget and Prioritization” (Attachment 1). Her presentation provided a general overview of fiscal year planning and stages of budget development and additionally addressed specific near- and long-term spending priorities for cleanup operations across Oak Ridge Reservation (ORR) sites.

### **Fiscal Year Budget Overview & Timeline**

At any given time, DOE has three active budgets. Current active budgets include:

- FY 2016 Enacted Budget—The FY16 “enacted” budget covers current year funding for executing work currently underway in the field.
- FY 2017 President’s Budget Request—The FY 2017 “requested” budget was submitted to Congress in February 2016 and will undergo further discussion and stages of development (detailed below) before eventually becoming the FY 2017 appropriation.
- FY 2018 Budget—The FY 2018 budget is actively in development and has not yet been “requested” (see above) by the president.

The site-specific FY 2018 budget for OREM, which is the main focus of the March 9 presentation, is currently in early development locally, and has not yet been submitted by the Oak Ridge Office to EM headquarters for consideration in the EM program’s overall budget.

Budget development typically runs the course of an entire calendar year, and appropriations are likewise determined a year in advance. Thus, OREM's appropriations for FY 2018 are undergoing development in FY 2016, will be included in the president's request in FY 2017, and will finally be enacted and spent in FY 2018.

#### **Annual Timeline for Budget Development (See Slide 3)**

**January/February**—Early in the year, sites consider funding priorities for several active “budget windows,” or planning blocks. OREM, for example, concentrates on FY 2018 priorities, but simultaneously plans a five-year budget window for FY 2018-2022 spending. During this initial planning stage, OREM collaborates with regulators and stakeholders to develop milestones and incorporate priorities into a budget proposal.

**March/April**—Meetings with regulators and stakeholders carryover into early spring. OREM collaborates with EPA and TDEC and also receives recommendations from ORSSAB.

**April/May**—In spring, OREM incorporates input from external sources (EPA, TDEC, ORSSAB, etc.) and submits its budget to DOE-EM headquarters. At this point, the budget becomes embargoed and details of the request cannot be shared outside the department.

**June/February**—The site's requested budget undergoes an 8-month period of deliberation with discussions taking place among the Office of Management and Budget (OMB), EM headquarters, and the individual field sites.

*August-September*—In the fall, amidst these 8-month negotiations, DOE-EM prepares the program's budget for submission to OMB.

*September-February*—Deliberations continue for several more months.

**February**—Sometime in early February, the budget is released, and the president's request is formally submitted to Congress.

#### OREM Site-Specific Budget

OREM comprises only a part of the overall DOE-EM budget (see Slide 4), which includes a number of individual sites in addition to Oak Ridge, such as Portsmouth, Ohio, and Paducah, Kentucky. The Oak Ridge site has traditionally fared well both in the president's request and in the actual appropriations determined by Congress. OREM experienced a \$36 million increase in its enacted budget for FY 2014, meaning the site received \$36 million above what the president even requested for the Oak Ridge cleanup program. In FY 2015, the site received \$46 million above the president's request. Most recently, OREM's appropriations for FY 2016 were \$102 million above the requested budget.

OREM receives three different types of funding for its cleanup program. Appropriations are distributed as decontamination and decommissioning (D&D), defense, or non-defense funds. The crucial point here is that these funding categories are exclusive, such that the money can only be used on its designated category of cleanup. D&D appropriations cannot be used cross-purpose to fund a non-defense project, such as historic preservation, and so on. Other stipulations further restrict the use of appropriations. D&D funds, for example, can only be used for gaseous diffusion cleanup. As a result of this requirement, only three sites are eligible for that funding, Oak Ridge, Portsmouth, and Paducah. Non-defense funding for the Oak Ridge site covers historic preservation work only, since OREM has no other projects to fit this category. Most of the cleanup effort in Oak Ridge, aside from the D&D work at ETPP, corresponds to the defense category and comes from the defense appropriations only.

The EM program budget for Oak Ridge can be further itemized by individual cleanup projects. Within each of the three major categories for OREM appropriations, funds are tagged for specific priorities and spent accordingly (Slide 5). Any additional funding awarded above the president's request always corresponds directly to individual program initiatives.

Since OREM's budget planning essentially covers the entire lifespan of the Oak Ridge cleanup project, the additional funding of \$102 million above the president's request for FY 2016 has allowed OREM to accelerate progress on spending priorities already well established.

#### FY 2016 Work Scope and Appropriations

Spending highlights for FY 2016 defense funds include: an additional \$9 million above the president's request for U-233 disposition, which has been used to accelerate processing of U-233; a sizable increase in funding for Transuranic (TRU) Waste Operations, applied toward processing "remote-handled" and "contact-handled" debris; and a \$7-8 million increase for EM Facilities and Waste Operations, which is being used to upgrade the Liquid Gaseous Waste Operations. Most notably, the category for excess facilities at Oak Ridge National Laboratory (ORNL) and Y-12 National Security Complex (Y-12) received a bonus \$27 million in appropriations. The boost here will be applied to safety and characterization work at seven deteriorating facilities at ORNL and Y-12 marked for later D&D. The increased funds will provide a roof for Alpha-4 and allow for hazard characterization work at Y-12's biology complex.

Historic preservation (non-defense) funds for FY 2016 increased by \$6 million over the president's request. The money will be applied toward completing design work on the equipment building, viewing tower, and history center that will eventually become part of the Manhattan Project National Historical Park at ETTP.

Additional D&D funds appropriated for cleanup at ETTP, an increase of \$40 million above the request for FY 2016, will support "Vision 2020," OREM's initiative to complete cleanup of facilities and close the site at ETTP by the end of FY 2020. (For a detailed breakdown of how increased funds for FY 2016-2017 work scope are being allocated, see Slide 5).

#### OREM's "Vision" for Oak Ridge Cleanup

OREM's cleanup program prioritizes projects and sequences its work scope based on several guiding principles: to protect human health and the environment, to comply with regulatory requirements, and to support DOE's ongoing missions for ORR cleanup (Slide 6). These missions vary from site to site but are broadly outlined as supporting the reindustrialization of ETTP as well as historic preservation and supporting the national security mission of Y-12 and the science mission of ORNL.

OREM's goals, popularly expressed as "visions" (slide 7), group the program's foreseeable milestones into manageable windows, such as the four-year blocks designated for "Vision 2016," "Vision 2020," and "Vision 2024."

- Vision 2016 correlates to the complete demolition and removal of all five gaseous diffusion buildings at ETTP. Demolition began at Building K-27, the last remaining of those five buildings, on February 8, 2016. Cleanup at the site continues on schedule, and OREM expects to finish the operation and complete its goals for Vision 2016 by the end of the calendar year.
- Vision 2020 extends the efforts of Vision 2016 and aims to complete cleanup of all facilities at ETTP and release the land for reindustrialization by the end of 2020.



- Vision 2024 expands on cleanup activities at ETTP and outlines objectives for the cleanup operations planned at Y-12 to address its mercury-contaminated facilities.

### Review of Near-Term and Long-Term Priorities

FY 2016-2018 near-term priorities, which have been focus of the March 9 presentation, include completing design of the Y-12 Outfall 200 Mercury Treatment System, completing the U-233 direct disposition campaign, continuing to processing contact-handled and remote-handled TRU waste debris at the TRU Waste Processing Center, designing and constructing a sludge test facility, completing planning for the proposed EM Disposal Facility, and completing the demolition operation at Building K-27 at ETTP.

Although OREM focuses its effort on near-term goals and the projects and planning currently being executed, the program also keeps sight of its long-term priorities. For FY 2019-2022 these are: transitioning from U-233 direct disposition to a processing campaign; continuing TRU waste debris processing and, hopefully, resuming shipment of TRU waste debris for off-site disposal; completing cleanup at ETTP; moving from a design phase to the construction phase of Outfall 200 at Y-12; addressing critical infrastructure problems at ORNL and Y-12; designing and constructing the EM Disposal Facility; and designing a sludge processing facility.

A great deal of work remains even after tackling out-year priorities, and plans for post-FY 2022 work scope are also kept in mind. In the years following FY 2022, DOE will address groundwater contamination, complete processing of U-233, construct a sludge processing facility for TRU waste, and complete cleanup of Y-12 and ORNL.

### Public Involvement Opportunities

Developing a budget for the massive cleanup operations across ORR requires advanced planning and careful prioritization of projects. Avenues exist for public involvement in FY 2018 budget planning. DOE is organizing a budget workshop in the spring to bring together stakeholders and interest groups who will collaborate on budget priorities and present their views to DOE. ORSSAB members are invited to attend, and DOE strongly encourages the advisory board to draft a recommendation on the FY 2018 budget following the workshop.

*After the presentation, board members raised the following questions:*

Mr. Paulus addressed the issue of spending given the increase in appropriations for Oak Ridge cleanup. It can be as difficult to spend more as to spend less, he acknowledged. Has the additional funding presented any new challenges in allocating those resources effectively? Ms. Thompson explained that the nature of budget planning in windows for near- and long-term goals ensures the appropriate allocation of any unexpected funds toward OREM priorities within a well-established timeline. The entire lifecycle of the Oak Ridge cleanup project has already been planned and a sequence for spending established. Any additional resources allow OREM to re-sequence the existing plan, generally meaning that DOE is able to accelerate work that has already been contracted. Mr. Paulus asked a follow-up question on appropriations. Is there any possibility of a more restricted budget after a generous period? Ms. Thompson acknowledged that expectations for funding cannot be fully guaranteed since the program budget is determined by Congress from year to year. However, Oak Ridge cleanup efforts have traditionally been supported very well by Congress, and there is currently no reason to expect that situation to change.

Mr. Trujillo inquired about early indications from Congress regarding funding amounts. Does OREM get any advanced notice that more money will be coming? Ms. Thompson explained that signals as to funding expectations are not provided during the budget planning cycle. If there were any indicators, those would come later in the cycle when budgets are released by individual offices and negotiations are underway.

In addition, Mr. Trujillo asked for more information on future budget priorities and how Y-12 figures into near-term planning. He specifically wanted to know if work scope for Y-12 will be expanded prior to 2020. Will Vision 2020 begin to address critical infrastructure needs at Y-12? Ms. Thompson explained that DOE collaborates with both Y-12 and ORNL on a joint plan for cleanup that prioritizes projects across the ORR based on risks. Additional funding for excess facilities will be applied to these existing plans. Mr. Trujillo reframed the question, asking if cleanup for Y-12 will be accelerated. Ms. Thompson explained that DOE will implement cleanup projects based on prior prioritization. Vision 2020 concentrates efforts on cleanup at ETTP, while Vision 2024 transitions to Y-12. Additional funding has not altered prioritization of projects, but it has allowed for characterization work of facilities at Y-12 and operations to stabilize structures so that they remain safe and compliant until funding exists to begin demolition and large-scale cleanup.

Mr. Hatcher asked if the current election is having any impact on budget planning or the president's request. Ms. Thompson stated that despite the attention on the presidential election, business proceeds as usual.

Mr. Wilson asked a follow-up question on the appropriations for historic preservation. In light of the Memorandum of Agreement (MOA) with 12 parties for historic preservation work, does all of the funding come from OREM's budget? Ms. Thompson explained that the MOA went into effect in 2012, prior to any inclusion of the National Park Service, as part of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process. Since ETTP is a signature facility of the Manhattan Project, DOE agreed to stipulations such as constructing a viewing tower and history center in the fire station at ETTP as well as an equipment building to replicate the exterior of Building K-25. The historic preservation funds are for executing the terms of that agreement only. Mr. Wilson also asked how historic preservation figures into future planning as the project does not appear listed in future work scope. Ms. Thompson observed that historic preservation was not included in the president's request for FY 2017, but OREM continues on the design phase for this work and construction will eventually take place.

*Following the questions posed by the board, regulators raised the following concerns:*

Mr. Czartoryski stressed to DOE that the State of Tennessee and EPA are regulators, and as such are categorically distinct from stakeholders like ORSSAB and should be regarded separately (see Slide 3). By a Federal Facility Agreement, three parties, DOE, EPA, and TDEC, are to collaborate on Oak Ridge cleanup and negotiate milestones. Mr. Czartoryski specifically addressed prior agreements with DOE as to these milestones, stating that in the past TDEC agreed to a reduced number of milestones, or focus on strategic priorities only, with the expectation of a \$420 million annual budget. However, the agreement to reduced milestones resulted in smaller presidential requests, an outcome counter to TDEC's intentions. TDEC, as well as EPA, are of the position that milestones should come first and budget requests should correspond directly to the needs that have been determined in establishing milestones, rather than the reverse, as has been the case from TDEC's perspective in that DOE prioritizes funding over milestones.

Mr. Czartoryski expressed concerns for a pattern whereby fewer milestones results in decreased funding. TDEC supports a partnership with DOE for Oak Ridge cleanup and would like to promote the success of OREM's program by bringing more milestones forward and ensuring more work is scheduled. The funding boost from Congress is positive, but other sites with more milestones consistently receive more funding. With the anticipated completion of ETTP cleanup, TDEC fears that depletion of D&D funds will have a negative impact on Vision 2024. In order to keep pace with planned operations at Y-12 and ORNL, additional funding will be necessary since those sites cannot draw from D&D funds for cleanup. In order to generate additional money for the defense category, which funds Y-12 and ORNL cleanup, TDEC requests extra milestones be added to the FY 2018 budget.

In this vein, TDEC has submitted a letter to DOE and is awaiting a response. The board requests an update from Mr. Adler once DOE has reviewed the letter and issued a response.

### **Committee Reports**

#### **EM & Stewardship**

Dr. Hatcher reported –

- Following the February 10 presentation on groundwater, and in lieu of its regular meeting, the EM & Stewardship Committee attended a presentation led by Leidos technical staff on 3D computer modeling of regional groundwater flow across the ORR.
- The committee requests an update on the results from the final ground water sampling event of February 2016, which were still undergoing analysis at the time of the February 10 ORSSAB presentation.
- The next EM & Stewardship Committee meeting is scheduled for March 23. Discussion will follow on the March 9 FY 2018 budget presentation.

#### **Executive**

Ms. Cook reported –

- ORSSAB is seeking volunteers for participation in Oak Ridge Earth Day. The event will take place on April 23, 2016, 11 a.m. to 4 p.m. at Bissell Park. Volunteers will be expected to serve in 2-hour shifts. Interested board members should notify ORSSAB staff at [Pete.Osborne@orem.doe.gov](mailto:Pete.Osborne@orem.doe.gov) or 865-241-4583.
- Planning continues for the EM SSAB Spring Chairs Meeting in April (see below).
- The next meeting of the Executive Committee is scheduled for April 6 at 6 p.m.

### **Announcements and Other Board Business**

- ORSSAB staff member Spencer Gross, who has announced his retirement, was honored for his 11 years of service to the board. Ms. Noe presented Mr. Gross with a plaque in recognition on behalf of DOE. Ms. Cook thanked Mr. Gross on behalf of ORSSAB for his commitment to the board.
- No monthly meeting is scheduled for April, due to the activities of the 2016 EM SSAB Spring Chairs Meeting. ORSSAB's next scheduled meeting will be Wednesday, May 11, 2016, at 6 p.m. at the DOE Information Center. The topic will be the EM Disposal Facility.

**Alternate DDFO Report**

Ms. Noe provided an update on planning for the 2016 EM SSAB Spring Chairs Meeting, which will take place April 19-21 in Oak Ridge. The event brings together all eight site-specific advisory boards under DOE's EM program.

A tour of the ORR is planned for April 19 and is being finalized. Arrangements are in place for an evening dinner on Wednesday, April 20, at the Event Center on the Lake, formerly Riverside Grille, in Oak Ridge. A Tennessee-style buffet will be catered by Copper Cellar. There will also be a cash bar and live music.

Board members are encouraged to register online by March 29 at <https://www.eventbrite.com/e/em-ssab-2016-spring-chairs-meeting-registration-21032256044>.

**Motions**

*Lacking a quorum, no motions were made during the meeting. As ORSSAB will not meeting in April, a motion to approve the minutes of the February 10, 2016 meeting will carry over to the May 11 meeting.*

**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.
2. DOE will provide an update on the final analysis of groundwater samples collected during the third sampling event in February 2016.

*Closed Action Items*

1. Mr. Hemelright will solicit responses from absentee members. *(Carryover from 1/13/16).*  
**Closed.** Mr. Hemelright contacted members to discuss attendance and confirm membership status.
2. Mr. Mayton and Mr. Adler will supply a response to Ms. Koltowich concerning her question on the location of wells referenced in the first sampling event for the off-site groundwater assessment project. **Closed.** DOE provided the requested information to Ms. Koltowich and ORSSAB on February 17, 2016. Ms. Koltowich acknowledged the response as satisfactory.

The meeting adjourned at 6:57 p.m.

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 March 9, 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

# DRAFT



## Oak Ridge Site Specific Advisory Board Recommendation \_\_\_: Recommendations on the FY 2018 DOE Oak Ridge Environmental Management Budget Request

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### Background

Each year the U.S. Department of Energy (DOE) Environmental Management (EM) Program develops its budget request for the fiscal year two years beyond the current fiscal year, incorporating budget requests from DOE field offices to develop the EM Program budget request to the president.

DOE EM Headquarters typically issues guidelines to the field offices advising them how much funding they should reasonably expect when developing their fiscal year +2 budget requests. The field offices then brief the public, the regulatory agencies, and the respective site-specific advisory boards and seek input from each regarding budget requests.

In spring 2016, DOE briefed the Oak Ridge Site Specific Advisory Board (ORSSAB) on the current budget window and described near-term and long-term priorities. These priorities are broadly grouped into program “visions”:

- Vision 2016—An effort to complete the demolition and removal of all five gaseous diffusion buildings at the East Tennessee Technology Park (ETTP) by the end of 2016.
- Vision 2020—An initiative to extend Vision 2016 to include cleanup of all facilities at ETTP and prepare to release the land for reindustrialization by the end of 2020.
- Vision 2024—The transition from cleanup activities at ETTP to address the mercury contaminated facilities at the Y-12 National Security Complex (Y-12).

More specific priorities were spelled out during presentations to the board. The first priority is always maintaining safe, compliant operations. Project-specific priorities identified by DOE are as follows.

Near-term priorities (2016–2018) are:

- Complete design of the Y-12 Outfall 200 Mercury Treatment System
- Complete the Uranium-233 (U-233) Direct Disposition Campaign
- Process Transuranic (TRU) waste debris
- Design and construct the Sludge Test Facility
- Complete planning for the Environmental Management Disposal Facility (EMDF)
- Complete Building K-27 demolition

Long-term (2019–2022) priorities include:

- Transition to the U-233 Processing Campaign
- Continue TRU waste debris processing and shipments
- Complete ETTP Cleanup
- Construct the Y-12 Outfall 200 Mercury Treatment Facility
- Address critical infrastructure
- Design and construct EMDF
- Design the Sludge Processing Facility

Post FY 2022 activities include:

- Addressing off-site and other groundwater problems
- Complete processing of remaining U-233 material
- Construct the Sludge Processing Facility
- Complete Y-12 and Oak Ridge National Laboratory (ORNL) cleanup

### **Discussion**

ORSSAB believes that its input to DOE in regard to the general trends in the cleanup mission and sequencing of priorities is valuable to DOE in its continued efforts to clean up Oak Ridge. We also believe that deviation from the overall sequencing through the next four decades will be minimally affected by our recommendation that consists basically of bringing forward two activities defined below.

The board understands the intricacies of sequencing and prioritizing the myriad activities of the EM Program but believes that incorporating the recommendation below into near-term planning would have minimal impact on the overall budgets for FY16, FY17, and FY18.

### **Recommendation**

ORSSAB requests that DOE include the two items described below:

1. The design and construction of the Y-12 Outfall 200-Mercury Treatment System could be accomplished in the FY 2016-2018 time frame by using some funding for the second half of FY16 and FY17 from the plus ups. Also, the board recommends including additional funds in the FY18 budget request.
2. Rather than waiting for the completion of decontamination and decommissioning of above-ground structures, additional, although minimal, funding could be identified in the FY18 budget request for more in-depth groundwater activities at select locations, particularly to address questions related to off-site contaminant migration. The increased activity would yield data that would benefit the out-year groundwater efforts, help address unanswered questions, and dispel current perceptions of inactivity on this important aspect of environmental media.

## **EM SSAB Funding**

### **Background**

The Environmental Management Site Specific Advisory Board (EM SSAB), comprises 200+ individuals from eight regional Advisory Boards from Georgia, Idaho, Kentucky, Nevada, New Mexico, Ohio, Oregon, South Carolina, Tennessee and Washington. These Advisory Boards cumulatively represent a stakeholder population of millions of people affected by waste generator sites, transportation routes, and waste disposal areas.

EM SSAB members commit their time and resources as volunteers to help further the U.S. Department of Energy Office of Environmental Management (DOE EM) cleanup goals. Resources are required to ensure the ability of the individual boards to meet the expectations of the DOE, local stakeholders and the public.

### **Recommendation**

The EMSSAB recommends:

- Funding for each of the member boards that comprise the EM SSAB needs to be at an adequate level to fulfill obligations and commitments in order to --
  - o Provide informed recommendations on DOE EM cleanup
  - o Provide the diverse public with meaningful opportunities to influence cleanup decisions through an open and transparent process

**Environmental Management Site Specific Advisory Board  
Recommendation:  
Community Investment as Factor in Contract Proposal Evaluation Process**

**Background**

Communities across the country have been adversely affected by the legacy of research and development of nuclear capabilities that occurred during the World War II and Cold War eras. The resulting cleanup of contaminated areas in these communities is on-going and managed by the U.S. Department of Energy's Environmental Management Program (DOE EM). To date, billions of dollars have been spent on cleanup activities, and this work by DOE EM contractors will continue far into the future. The EM Site Specific Advisory Board (EM SSAB) believes that contractors be encouraged by DOE EM to become good stewards by investing resources back into the communities that serve them.

**Observation**

Whether it is for scholarships to local students, goods purchased from local stores, resources provided to local food banks, or community development grants, these efforts give back to the community. By investing in affected communities, the DOE EM contractors help revitalize those communities and foster healthy relationships between the DOE and local stakeholders.

**Summary**

DOE contractors can impact EM communities, and the EM SSAB asks DOE to encourage those practices by making community investment provisions part of the evaluation criteria for cleanup contracts.

**Recommendation**

The EM SSAB recommends that DOE EM:

- 1) Incorporate "planned investment within the community" as a weighted factor in the proposal evaluation process of all contractors.
- 2) Provide information to local boards on community investment provisions included in Requests for Proposals.



# REPORTS & MEMOS

## EM Project Update

ETTP	March	April
Zone 1 Final Soils ROD	Initiated the review of the D0 Final Soils ROD.	Completed the review of the D0 Final Soils ROD and initiated preparation of the D1 Final Soils ROD.
Zone 2 ROD	Characterization sampling was performed in EU Z2-16 and confirmation sampling was performed in EU Z2-50.	Results of the confirmation sampling in EU Z2-50 was received and is being evaluated.
		Completed the MARSSIM survey on the north slab of the K-25 Footprint and began the MARSSIM survey on the west slab of the K-25 Footprint.
		Prepared a concurrence form describing the sampling approach for the K-1101 and K-1201 slabs in support of the movement of nickel containers to within the "U" of the K-25 Footprint. Approval of the sampling strategy was obtained from the regulators.
		Completed Dynamic Verification Strategy Radiation walkover surveys.
K-25/K-27 D&D	The K-27 building demolition is 23 percent complete. The project has shipped 1,264 truckloads of building debris to the EMWMF.	The K-27 building demolition is 47 percent complete. The project has shipped 3,014 truckloads of building debris to the EMWMF.
		The Removal Action Work Plan for K-27 was approved by the regulators.
K-732 Switchyard Demolition	Three synchronous condensers, each weighing 110 tons, were successfully transported to the Oak Ridge Reservation Landfill. The project is 97 percent complete.	A walkdown was performed of this area to verify completion of the Site Restoration milestone. The completion of this phase comes after months of disassembling, removing, recycling, and disposing of electrical equipment and legacy metal from the former electrical switchyard.
	The project has worked more than 8,200 field hours without a safety incident.	
K-1037 Demolition	Completed the removal of combustible materials from the facility, bringing it into compliance with the National Fire Protection Association.	A Technical Evaluation Panel (TEP) meeting was held in Los Alamos regarding the proposed declassification of certain gaseous diffusion technology. The TEP members were interested in making sure the wording of new guide topics were clear; and that it only declassified the information necessary to complete the K-1037 D&D in an efficient manner.
	Completed installation of the Boundary Control Station to support demolition activities and also proving electrical connections and stairs/decking.	Completed electrical connections for both the Boundary Control Station and the Security Gate.
Remaining Facilities		The PCCR for Building K-31 was approved by the regulators.
ORNL	March	April
U-233 Disposition	A briefing was held for OREM and the Oak Ridge Site Office Management to provide a status of options for location of the U-233 processing campaign and Office of Science's isotope production mission.	A joint briefing was held by DOE and the ORNL Site Office concerning the status of Building 2026 Utilization for the Assistant Secretary for Environmental Management and the Office of Science Director.

## EM Project Update

ORNL	March	April
U-233 Disposition	Staff from the Defense Nuclear Facility Safety Board (DNFSB) visited the site and received a briefing on the status of the U-233 Direct Disposition.	
Bethel Valley ROD	A Non-Significant Change to the Bethel Valley ROD to remove the scope of Building 2643 from the ROD was submitted to the regulators.	
MSRE D&D	The PCCR for the MSRE Remediation of Secondary Low Level Waste was approved by the regulators.	
Off-Site Cleanup/Waste Management	March	April
EMWMF and EMDF	The D4 RI/FS Report was submitted to the regulators for approval.	The FY 2016 PCCR was submitted to the regulators for review.
TRU Waste Processing Center		The Sludge Processing Facility Buildouts Project began reviewing the Sludge Test Area Mobilization System (SLMS) Performance Specification. Due to the long lead procurement time for the SLMS (18-24 months), it is important to ensure the specifications are clear.
		The TRU project is preparing for an independent assessment of the low-level waste certification program, and the Central Characterization Project is preparing for their annual recertification audit.
Reindustrialization	The draft Covenant Deferral Request (CDR) for the former Powerhouse, Duct Island, and K-1007-P-1 Area was issued for a 30-day public review period that will end on March 29th. The property consists of approximately 662 acres of primarily vacant land located in the southwestern part of ETPP.	OREM hosted 20 local park rangers from the National Park Service (NPS). The NPS requested a more in-depth tour after viewing the 3-D video rendering of the History Center and the Equipment Building that are a part of OREM's historic preservation commitments.
ORR Groundwater Strategy		An offsite groundwater meeting was held between DOE, TDEC, EPA, and the Tennessee Department of Health. The purpose of the meeting was to discuss the results of the three rounds of sampling conducted in 2015 and 2016 from offsite residential wells and springs.
Water Resources Restoration Program	The FY 2016 Remediation Effectiveness Report was submitted to the regulators for review.	
Public Involvement Plan		The Community Outreach Plan for EMDF was submitted to the regulators for review.

## 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

MTF – Mercury Treatment Facility

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

OR – Oak Ridge

OREM – Oak Ridge Office of Environmental Management

ORNL – Oak Ridge National Laboratory

ORO – Oak Ridge Office

ORR – Oak Ridge Reservation

ORRR – Oak Ridge Research Reactor

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

UPF – Uranium Processing Facility

URS/CH2M – (UCOR) DOE's prime cleanup contractor

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



## Travel Opportunities

Meeting/Event	Dates	Location	Reg. Cost	Website	Conference Lock Date; # Allocated Attendees	Deadline to Submit Requests
<b>FY 2015</b>						
<b>Intergovernmental Meeting with DOE</b> (Pending requests: ___)	November 18-20, 2015	New Orleans	none	<a href="http://www.cvent.com/d/hrq66w">http://www.cvent.com/d/hrq66w</a>	N/A	10/7/15
<b>Perma-Fix Nuclear Waste Management Forum</b> (Bi-annual event) Attendees: Hemelright, Holmes)	Nov. 30 - Dec. 3, 2015	Nashville	\$500	<a href="http://events.constantcontact.com/register/event?llr=8n5x6qkab&amp;oeidk=a07eb-edtkdrb8c2e800">http://events.constantcontact.com/register/event?llr=8n5x6qkab&amp;oeidk=a07eb-edtkdrb8c2e800</a>	42271	8/26/15
<b>Waste Management Symposium</b> Attendees: Hemelright, Price	March 6-10, 2016	Phoenix	\$1,090 (early registration rate, ends 12/31/15)	<a href="http://www.wmsym.org">www.wmsym.org</a>	11/1/2015 (2)	1/6/16
<b>National Environmental Justice Conference &amp; Training</b> Attendees: Deaderick)	March 9-12, 2016	Washington, D.C.	none	<a href="http://thenejc.org">http://thenejc.org</a>	N/A	2/3/16
<b>Ohio EPA National Brownfields Conference</b> Attendees: Hemelright)	April 6-7, 2016	Columbus, Ohio	\$125	<a href="http://epa.ohio.gov/derr/BrownfieldConference2016.aspx">http://epa.ohio.gov/derr/BrownfieldConference2016.aspx</a>	N/A	3/2/16
<b>RadWaste Summit</b> (Pending requests: ___)	September 7-9, 2016	Summerlin, Nevada	\$625 (through 4/29/16)	<a href="http://www.exchangemonitor.com/forums/annual-radwaste-summit/">http://www.exchangemonitor.com/forums/annual-radwaste-summit/</a>	3/2/16	2/24/16
<b>DOE National Cleanup Workshop</b> (Pending requests: Price [tentative])	September 14-15, 2016	Alexandria, Virginia	none	<a href="http://energy.gov/em/2016-doe-national-cleanup-workshop">http://energy.gov/em/2016-doe-national-cleanup-workshop</a>	Lock date TBD. Number of attendees: 1	TBD
<b>2016 Fall Chairs Meeting</b> (Pending requests: Hemelright, Price)	August 30 - Sept. 1	Las Vegas	none		N/A	TBD
<b>Transuranic Waste Processing Center</b> (Requests: Martha Deatherick)	TBD	OR	none	none	none	none
<b>Western Waste Site Tour</b> (Pending requests: _____)	Postponed pending resolution of issues at WIPP	Waste Isolation Pilot Plant, Nevada Nat'l Security Site	none	none		

Shaded trips are closed



*Many Voices Working for the Community*

# Oak Ridge Site Specific Advisory Board

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## Trip Reports

May 11, 2016

### Contents

**1. March 6-10, 2016**

Dave Hemelright, Waste Management Symposium, Phoenix, AZ

**2. March 6-10, 2016**

Belinda Price, Waste Management Symposium, Phoenix, AZ

**3. March 9-12, 2016**

Martha Deaderick, National Environmental Justice Conference & Training, Washington, D.C.

**4. April 6-7, 2016**

Dave Hemelright, Ohio (EPA) Brownfield Conference 2016, Columbus, OH



## Oak Ridge Site Specific Advisory Board

### TRIP REPORT

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- I. Name of Traveler: David Hemelright
- II. Date(s) of Travel: 6 – 10 March 2016
- III. Location of Meeting: Phoenix, AZ
- IV. Name of Meeting: WM Symposium 2016
- V. Purpose of Travel: To represent the OR SSAB and OR DOE at the conference and participate in a panel discussion on the importance of ‘partnerships’ in successful legacy waste clean-up operations. Also co-authored a paper on “Engaging the Public” with Belinda Price which was presented in a separate session dedicated to advisory boards and public engagement.
- VI. Discussion of Meeting: Tuesday, March 8<sup>th</sup> was Oak Ridge Day at the WM Symposium. There were presentations all day concerning successes at the ORR. The day concluded with “A Taste of Tennessee” buffet meal in the vendor area.
- Great Britain was the ‘featured’ country at WM Symposium 2016.
- VII. Significance to ORSSAB: To promote the good work that the OR SSAB is doing to facilitate the legacy clean-up at ORR. As the featured site, it was important that OR SSAB be well represented and the good work recognized.
- VIII. Names & Telephone Numbers of Significant Contacts:  
DOE: Monica Regalbuto, Sue Cange, Jay Mullis, Bill McMillian, Brian DeMonay, Dave Adler, Laura Wilkerson, Alan Stokes, David Borak. UCOR: Betsy Child, Ken Reuter, Sherry Browder. TDEC: Shari Meghreblian. StrataG: Jenny Freeman. ORNL: Lance Mezga, Jeff Smith.
- IX. Action Items: None
- X. Traveler’s Signature & Date:

*David Hemelright*

4/15/16



## Oak Ridge Site Specific Advisory Board

### TRIP REPORT

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- I. Name of Traveler: Belinda Price**
- II. Date(s) of Travel: March 6 - March 10 2016**
- III. Location of Meeting: Phoenix, Arizona**
- IV. Name of Meeting: Waste Management**
- V. Purpose of Travel: Attend meeting and present paper**

**VI. Discussion of Meeting:**

I attended the 2016 Waste Management Symposia in Phoenix, Arizona. The ORR was this year's featured DOE site. I attended a variety of sessions including oral presentations, posters and discussion panels covering a wide variety of aspects of nuclear waste management. Presenters included representatives of DOE and other government agencies, contractors and suppliers from the U.S. and other countries. The featured country this year was Great Britain. The exhibits included informal discussion opportunities and demonstrations from over 140 contractors and suppliers.

I presented a paper, co-authored by Dave Hemelright for the session titled "The Effectiveness of Advisory Boards: the US DOE EM Site Specific Experience", the paper was titled "Oak Ridge Site Specific Advisory Board Adapts To Engage". The paper focused on how the ORSSAB has evolved and adapted its process over the years to provide a positive and productive experience for its members while fulfilling its mission to provide significant value to DOE by providing informed recommendations. Other presenters in the session included David Borak, the DOE's Designated Federal Officer for EM Site Specific Advisory Boards (from DOE Headquarters), Nina Spinelli, a member of the Savannah River Site Citizens Advisory Board, and Rick McLeod, a representative of the Savannah River Site Community Reuse Organization. Belinda and Dave were honored to learn that their paper was selected by the Session Co-Chairs as the "best of the session". The Symposia usually includes several sessions on community involvement, including one specific to DOE Site Specific Advisory Boards and having been at several similar sessions in recent years, Belinda was pleased to be able to note that this year's audience was larger than in previous years.

**VII. Significance to ORSSAB:**

This trip was important to me because it helped enhance my understanding of the cleanup efforts of EM at the Oak Ridge Reservation (ORR) and continued my education with respect to the

entire DOE EM complex. Further, at the technical session on The Effectiveness of Advisory Boards, I felt it was particularly useful to have met several representatives from other Advisory Boards as well as our DOE Headquarters Coordinator who, many of whom will be coming to the SSAB Spring Chairs Meeting later this month.

**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

Date: 4/5/2016



## Oak Ridge Site Specific Advisory Board

### TRIP REPORT

- I. **Name of Traveler:** Martha Deaderick
- II. **Date(s) of Travel:** 9-12 March 2016
- III. **Location of Meeting:** Washington, D.C.
- IV. **Name of Meeting:** 2016 National Environmental Justice Conference

*Environmental justice will be achieved when everyone enjoys the same degree of protection from environment and health hazards and equal access to the decision-making process to enjoy a healthy, sustainable environment in which to live, learn, work, and play. [1994 Environmental Justice Executive Order]*

On March 9-12, 2016, the ninth annual Environmental Justice Conference took place in Washington, DC. This was a gathering of scientists, students, medical professionals, educators and government civil servants. The students explored different aspects of the topics and produced posters of their research. I attended both panel discussions and breakout groups on more practical and specific facets of the main themes of the conference. I have condensed and distilled these themes into shorter highlights among which I hope you'll find an idea or two. I appreciate the opportunity to participate and feel an obligation to bring back to you a sampling of what I learned.

***Representative James Clyburn, SC*** – government is a collective effort to improve the quality of life. In 2008, Clyburn helped to craft the Stimulus Bill in response to the financial meltdown. He helped to create the “10-20-30 Plan.” In it, he looked at the almost 500 counties in the US where over 20% of the population had been living under the poverty line for over 30 years and directed 10% of the stimulus funds to projects in those counties. Speaker Paul Ryan was impressed with the plan and has a good collaborative relationship with Clyburn. The Flint, MI decision was made on finances. It would have cost \$100. a day to put in the additives into the water to prevent injury to 100,000 residents.

***Dr. Valerie Montgomery Rice, Morehouse School of Medicine*** – Environmental justice is a human right. Equity must achieve equality of outcomes. Access isn't enough. The same care and equal care doesn't achieve equity. Education must include wrap-around support for students and their families plus deep parent and community and school ties. Morehouse Medical has 'adopted' a near-by elementary school and is partnering with wrap-around support even to the extent of linking parents to jobs.

***The High Tunnel Initiative Breakout Group*** – the US Department of Agriculture (USDA) is partnering with urban gardeners to build hoop houses or unheated greenhouses. A church in VA has built one and grows veggies for its seven-day a week feeding program. The city of Cleveland has built 100 on formerly vacant lots. Mainly elderly neighborhood residents farm them. A program in Philadelphia farms them with formerly incarcerated people who have not found employment.

***Faith-based ministries partnering with the EPA*** – Stewardship means sustainability. A minister from a Baptist church in D.C. talked about putting solar collectors on the roof of his urban church. They have also stopped using Styrofoam and are collecting rainwater and building a meditation garden. A representative from the Catholic bishops spoke of Pope Francis's Encyclical on the environment. Some of the main ideas: environmental problems are social problems; emphasis on those on the margins; culture of care versus throwaway culture; sustainable path versus the slavery of consumerism.

***Climate Change Panel*** –

Dr. Mark Mitchell, National Medical Association Commission on Environmental Health: only 25 percent of Americans can name one health effect of climate change, such as civil conflict from forced migration, depression/anxiety, water-borne diseases, mold allergy and asthma, heat stroke, vector-borne diseases (i.e. Lyme and Dengue). The speaker compared the temperature of the earth to the temperatures of our body, i.e. 100 degrees Fahrenheit is not much of a problem, but 104 degrees is.

Juli Trtanj, speaker from NOAA: the US Climate Assessment will be out in April. There will also be a new report on climate change and food security. We will have an additional 45 days per year where temperatures top 100 degrees Fahrenheit.

Jack Moyer, AECOM, Morrisville, NC: discussed water security. We are getting close to using water faster than the water cycle can supply. The USA uses an average of 100 gallons a day per person. The UK and Australia use half as much. WE can focus on conserving water on landscape irrigation and on toilets, which account for half of our use.

Milton Bluehorse, Esq., Tribal Consultation Resources, LLC, spoke from a Native American perspective: He said that there are over 567 recognized tribes but over 3,000 communities of Native American peoples. 5,000,000 represent the population in the US, median age, 28. He says that his mother sees more 'male rain than female rain' (male rain is a hard rain that runs off; female is gentle and soaks in). His uncle said, "Tell those people you're talking to that we're all indigenous to the planet Earth." He encouraged the audience to go back to their communities to listen to and talk with people, to volunteer their efforts in the community.

This panel concluded with advice from the moderator, Dr. Laverne Ragster, former President of the University of the Virgin Islands, "You think that nothing can touch you if you do all the right things. But, after a catastrophic event, what do you do to adapt and thrive? Look around and find the issue that you and your community care about. You can get overwhelmed if you try to fix the whole world. Just focus on fixing your local piece of the world and you can later fit that into the whole."

Personal Reflection: After listening to the presentations at the conference and talking with participants, the ideal of environmental justice remains elusive for me, perhaps because I am so oriented to my own survival and well-being. But, I am beginning to realize that we are all “caught in an inescapable web of mutuality” (Martin Luther King). Hearing about the suffering of the parents and children in Flint, Michigan, makes us think about some of the folks of Charleston, South Carolina whose water runs through wooden pipes. It makes us wonder about the water quality in our local community as we drink from our wells, springs and rivers. It highlights the important work that the Oak Ridge Office of Environmental Management does here to correct and rebalance the effects of some disastrous short-term thinking and decision making that is the shadow side of our legacy from World War II.





## Oak Ridge Site Specific Advisory Board

### TRIP REPORT

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- I. **Name of Traveler:** David Hemelright
- II. **Date(s) of Travel:** 6 & 7 April 2016
- III. **Location of Meeting:** Columbus, OH
- IV. **Name of Meeting:** Ohio (EPA) Brownfield Conference 2016
- V. **Purpose of Travel:** To attend the conference and try to learn what Ohio has done to reindustrialize former 'toxic' sites located throughout the state. Ohio is a 'rust belt' state with many vacated former steel and rubber manufacturing sites. Since the ORR ETTP is soon to be cleaned up perhaps there might have been ideas that Ohio has done that would be beneficial to ETTP. There were none as the conditions that Ohio faces and the conditions at ETTP are worlds apart, and no comparison or methods can be transferred. I did speak to a few about their (Ohio's) upcoming project at cleaning and reindustrializing the Portsmouth GDP that will be facing them in about 6 years. Perhaps they could learn from ETTP successful progress.
- VI. **Discussion of Meeting:** This conference celebrated the 20<sup>th</sup> year of the Ohio Voluntary Action Program (VAP) which was established to certify professionals to insure adequate clean-up was completed at 'superfund' and other CERCLA sites in the state. Funding and grants were available in the early years, but that source of funding has dried up. Many old abandoned manufacturing facilities, gas stations and waterways have been cleaned up and made into viable industrial sites or parks and recreation areas.
- VII. **Significance to ORSSAB:** There was none!  
Recommend that this conference be dropped from the approved SSAB conferences to attend. Perhaps in the future DOE could present the successes at ETTP to the Ohio folks.
- VIII. **Names & Telephone Numbers of Significant Contacts:**  
Brad White, Hull & Assoc. ; Amy Yersavich, Ohio EPA; Linda Sternheimer, Cleveland-Cuyahoga Port Authority; Sue Netzly-Watkins, Ohio EPA; Blasé Leven, KSU;
- IX. **Action Items:** Did find out that funds maybe available through EPA Region 4 for Brownfield mitigation and reindustrialization. Developers, et al, may contact Region 4 in Atlanta for specifics.
- X. **Traveler's Signature & Date:**

*David Hemelright*

4/25/16