



# Advocate

A publication of the Oak Ridge Site Specific Advisory Board – a federally appointed citizens panel providing independent recommendations and advice to DOE’s Environmental Management Program

## Board Members Gather with DOE, EPA, TDEC Liaisons to Share Priorities, Potential Workplan Topics for FY 2019 at August Annual Planning Meeting

A proposed waste disposal facility topped the list of priorities at the Oak Ridge Site Specific Advisory Board’s (ORSSAB) Annual Planning Meeting in Gatlinburg, Tenn. on August 25.

The yearly event brought together members of the board, leadership from the Department of Energy’s (DOE) Oak Ridge Office of Environmental Management (OREM) and partners from the Tennessee Department of Environment and Conservation (TDEC) and the U.S. Environmental Protection Agency (EPA) to discuss topics for the Oak Ridge board to address in the coming fiscal year, which runs from October 2018 to September 2019.

DOE, TDEC and the EPA each provided several topics of interest and were in agreement on the most pressing environmental issues for the board: Ensuring sufficient waste disposal capacity and evaluating ongoing groundwater efforts.

Using these suggestions, DOE will create a schedule for the Oak Ridge board to address in the coming fiscal year. Through a combination of presentations, tours, and in-depth discussions, board members can make informed recommendations on key topics—the board’s primary role in providing public input to DOE.

Dave Adler, the acting deputy manager for OREM, led the slate of presenters with an overview of the mission, vision, and goals of OREM’s cleanup program. Foremost among those broad goals is “Vision 2020,” which includes completing major cleanup of East Tennessee Technology Park (ETTP) and returning the site



*Board members gathered to hear agency suggestions for FY19 topics. DOE’s Dave Adler also presented an overview of the OREM cleanup program and budget.*

to the community as an economically beneficial business park.

Adler said progress toward cleaning up and reindustrializing ETTP is about 85 percent complete. The imminent completion of Vision 2020 means the EM program will make a major transition from cleaning up ETTP to beginning similar operations at Oak Ridge National Laboratory (ORNL) and Y-12 National Security Complex (Y-12) and addressing mercury contamination at the sites – actions that constitute the next cleanup project, “Vision 2024.”

Adler also took the opportunity to describe OREM’s current near-term priorities.

“The top issue before the board this year is planning for disposal of the waste to be generated by future cleanup

efforts at ORNL and Y-12,” said Adler. “The current landfill is close to capacity, and a new one will allow us to complete our mission.”

The new facility, known as the Environmental Management Disposal

*(See Annual Meeting on page 4)*

### Issue 72 • October 2018

#### IN THIS ISSUE

Reservation Update. . . . .	2
Board Officers Elected. . . . .	4
New Members. . . . .	5
Recent Recommendations. . . . .	6
Outgoing Member . . . . .	7
New Staff . . . . .	7
Member Recruitment . . . . .	8

## Reservation Update



Initial demolition activities at Oak Ridge's TSCA Incinerator began this summer.

### TSCA Incinerator Latest Facility to Fall in Cleanup Progress

Demolition is now complete at the Toxic Substances Control Act (TSCA) Incinerator at ETPP, which operated from 1991 to 2009 as the nation's only hazardous, radioactive waste that contained PCBs.

The main incinerator facilities were demolished in September and contaminated materials shipped for safe disposal offsite. Workers decontaminated equipment and areas within the facility and applied fixatives to ensure contaminants remain in place during demolition.

In 2013, workers completed stabilization and closure activities required to achieve safe shutdown.

TSCA played a key role in cleanup for the DOE complex and Oak Ridge. It processed more than 35 million pounds of liquid and solid waste from DOE sites across the country during its nearly two decades of operation.

### Board Chair Speaks to NAS during Oak Ridge Assessment

The National Academies of Sciences, Engineering, and Medicine (NAS)

visited OREM in August to conduct an independent assessment of the technology development efforts within OREM.

During its stay, NAS hosted a public meeting. ORSSAB, along with a variety of other community, commercial and government organizations, was invited to present during the event. ORSSAB Chair Dennis Wilson represented the board and offered an overview of its efforts and discussed recent recommendations related to technology

in waste and contamination cleanup with the committee.

The committee, composed of seven people, reviewed OREM's technology development efforts, including an assessment of the processes by which technologies are identified and selected for development. The study will produce a report of findings and recommendations, which should be available in January 2019.

### AMSE grand re-opening event planned for October 18

The American Museum of Science and Energy (AMSE) will welcome visitors to its new location at Main Street Oak Ridge in October.

Museum staff plan a multi-phase opening to ensure a smooth transition. On October 1, AMSE will open to the public on a limited schedule, Monday through Friday from 9 a.m.–5 p.m. DOE Public Bus Tours will also depart from the new location starting October 1. Full, public operating hours, including on weekends, will resume after the grand opening.

New museum exhibits are organized around five core categories: Energy Leadership, Big Science, National Security, Environmental Restoration, and the Manhattan Project.

### Tell DOE What You Think

DOE has released its plan for the Environmental Management Disposal Facility and seeks public input. View the plan at [doeic.science.energy.gov](http://doeic.science.energy.gov).

#### Public meetings are scheduled in September and October

##### EMDF

- **Accepts** low-level radiological and/or chemical soil and demolition debris, equipment, cleanup waste.
- **NO** free flowing mercury, transuranic waste, liquid waste, or

hazardous waste that does not meet land disposal restrictions.

##### Safety

- Clean fill dike to contain waste
- Base liner system with double leachate collection system and geologic buffer zone to protect groundwater
- Cover to reduce infiltration and isolate waste from people and the environment
- Wastewater treatment system

**Public Comment Period: September 10 – October 25, 2018**

Write to: Mr. John Michael Japp, DOE Oak Ridge Operations  
P.O. Box 2001, Oak Ridge, TN 37831

## Reservation Update

### Vacuum Technology Supports Safer, Faster Waste Removal

A new trailer-mounted vacuum system deployed at ORNL makes maintenance of the site's liquid and gaseous waste operations safer for workers and more efficient.

The equipment is used to remove contaminated sludge and debris from tanks, sumps, and valve boxes, which previously meant workers manually removing and transferring material while in full protective gear.

Using the vacuum technology has eliminated the risk of heat stress for employees, kept them from close contact with contaminated materials, and decreased the opportunity for safety hazards. The vacuum trailer will also result in cost and labor savings. It allows crews to eliminate multiple steps through its unique ability to remove and then dump the sludge and debris directly into a dewatering box. The dewatered waste can then be placed into a waste container and shipped to an approved off-site disposal facility.

### Workers Demolish K-633 at ETTP's Poplar Creek Area

OREM cleanup contractor URS|CH2M Oak Ridge (UCOR) completed demolition of the K-633 Test Loop Facility at ETTP in mid-June.

The 18,100-square-foot facility was built to test and evaluate gaseous diffusion equipment performance under production conditions. Later,

it also evaluated prototype equipment designed for gas centrifuge enrichment. It is the fourth building OREM has removed from ETTP's Poplar Creek area since last year. The area originally contained 11 large buildings and numerous structures built in the 1940s and 1950s to support the site's former nuclear program and operations.

Because of these activities, Poplar Creek facilities are the most contaminated facilities left at the site. The radiological contaminants in the building were affixed inside piping and equipment using fixatives and foam, allowing for safe demolition of the structure.

OREM plans to finish the Poplar Creek area demolitions by the end of next year.

### UCOR Scores High During OREM Six-Month review

UCOR has advanced multiple projects required to complete ETTP cleanup and reduced risks associated with OREM operations at ORNL and Y-12 over the past six months, according to a recently completed report. The performance means UCOR earned 92 percent, or \$6.2 million, of

the total award fee available under its contract with OREM.

Each year, EM releases information relating to contractor fee payments — earned by completing the work called for in the contracts — to further transparency in its cleanup program.

According to the scorecard and OREM's correspondence to UCOR regarding the fee determination, UCOR received a "very good" rating for project management and "high confidence" for cost and schedule during the period.

Particular accomplishments included:

Identifying a new approach for disposal of a large volume of mixed low-level waste from Building K-1037 that will save more than \$400,000; ceasing operations at the ETTP garage, which will allow Building K-1414 to be demolished earlier than planned; completing installation of nine new piezometers at EMWFM ahead of schedule; exceeding small business subcontracting goals; and conducting monitoring of groundwater, surface water, sediments, and other elements in accordance with remedial action report comprehensive monitoring plans.

Issue 72 • October 2018

### STAFF

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Review Board: Richard Burroughs, Melyssa Noe, Belinda Price, Ben Williams, Dennis Wilson



Crews began tearing down Building K-633 in May and completed the project in June.

## New Officers Elected at Annual Meeting, Will Take Reins in October

This year marked the first time officers were elected at the board's annual meeting -- a change board members indicated they would like to continue.

Members this year were very willing to take on the additional responsibility of a board officer. Several individuals vied for each position and voting was very close for some. This high level of participation can only help the board in its activities over the next year.

The new officers will serve a one-year term.

**Chair: Dennis Wilson.** Dennis served as chair in 2018 and was as vice chair in 2017. He has been a member

of the board since 2015.

While much of his 39-year career was focused on technology and intellectual property management, his early career included work as a resin



Dennis Wilson



Michelle Lohmann



Richard Burroughs

and polymer chemist for which he was awarded seven global patents.

**Vice Chair: Michelle "Shell" Lohmann.** Shell has been a member of the board since 2017. She is a

human resources director for U.S. Cellular. Previously she was the program manager for the University Recruiting and Graduate Education Programs for ORNL in collaboration with the University of Tennessee, Knoxville.

**Secretary: Richard Burroughs.** Richard served as board secretary in 2018. He has been a member of the board since 2015. He most recently served as the chief of staff in the Anderson County mayor's office. He is also a registered professional geologist. His employment history includes 25 years working primarily with Resource Conservation Recovery Act and CERCLA projects in several states.

## Annual Meeting

(Continued from page 1)

Facility (EMDF), would be much like the existing Environmental Management Waste Management Facility (EMWMF), which Adler said has operated for about 15 years with no issues. EMDF would accept only locally generated, low-risk materials such as construction debris or equipment with residual contamination. Adler said a proposed draft plan for the project should be released by November.

Adler also covered extending the operational life of facilities, reducing surveillance and maintenance costs, and addressing excess contaminated facilities. Other topics Adler covered included the importance of the board's input on reuse and historic preservation activities at ETTP, as well as priorities for the FY 2021 budget for the EM program. OREM submits each budget request two years in advance.

Mike Higgins, a board liaison from TDEC, specifically asked the board to consider processing of transuranic waste, or TRU, and the need for

funding the TRU Sludge Processing Facility. He said a pilot study for processing the sludge is still several years away, although DOE and TDEC are considering accelerating the project. He noted, though, that design and construction of an actual processing facility will require "a steady fiscal environment."

Higgins also asked the board to consider mercury remediation efforts, and he praised the Mercury Treatment Facility, which will allow the safe demolition of contaminated buildings.

Connie Jones, the EPA's liaison to the board, presented suggestions exclusively around ongoing groundwater projects and future strategy for groundwater protection. She stressed community concerns about groundwater migration and advocated for DOE to evaluate emerging groundwater treatment technologies.

As discussion moved to board business, Dennis Wilson, the board's president, reflected on the board's success over the past fiscal year. The board drafted two recommendations to DOE this year and approved a recommendation from EM SSAB, the

nationwide network of site specific advisory boards, regarding the ECA Report on Waste Disposition. In addition, board members participated in numerous tours and community and national events.

Members, including the five attending new members (see story on page 5), were particularly invested in serving on issue groups in the coming year. New members were eager to join the board's work and this renewed current members' commitment to mentoring their colleagues.

During the meeting, the board voted to approve two recommendations (see story on page 6) Recommendation 240: On the Proposed Environmental Management Disposal Facility and Recommendation 241: On the FY2020 Oak Ridge Environmental Management Budget Priorities.

In the final board business for the day, board members elected officers for FY2019.

The board's work plan for FY 2019 will be drafted in September. The first meeting of FY 2019 will be Wednesday, October 10.

## Five New Members Prepare for Board Service with Training, ORR Tour

ORSSAB welcomed five new members during the annual meeting in Gatlinburg. The new members were selected in July and spent time ahead of their first meeting learning the basics of their board responsibilities. These members will serve through June 2020.

**Terry Allen** (Anderson County) is a retired general engineer who worked at OREM from 1995 through 2016. He worked on issues related to regulatory compliance, safety culture, and other tasks related to environmental cleanup

Terry received his bachelor's in chemical engineering and his master's in environmental engineering from the University of Tennessee in Knoxville. He has an interest in environmental and public health issues and volunteers with Methodist Medical Center.

**William "Bill" Clark** (Morgan County) is a retired boilermaker with a wide range of experience both in his professional career and as the owner of a water-, gas- and oil-drilling rig, which provided firsthand insight into environmental issues.

Bill graduated from the Tennessee College of Applied Technology with certification in combination welding. He completed the boilermaker apprentice program and radiation and fissile worker training. He now is a Master Beef Producer providing freezer beef.

**Sarah Eastburn** (Knox County) is director of marketing and education outreach for the nonprofit Tennessee Clean Water Network, which seeks to educate and build support among organizations, decision-makers, and the public about water resource issues. She has also served as an educational fellow with AmeriCorps and an environmental development specialist in the Peace Corps.

She earned bachelor's degrees in Spanish business and mass communications from the University of Wisconsin in Eau Claire. Ms. Eastburn has an interest in environmental and public health issues.



*Above: Incoming board members Brooke Pitchers, Terry Allen, Jasleen Narula (student representative), Sarah Eastburn, Marité Pérez, and Bill Allen explore ORNL's Graphite Reactor during their tour of the Oak Ridge Reservation in July. Below: Members receive training on their duties and the history of ORSSAB from David Adler of OREM.*



**Marité Pérez** (Knox County) is a loan officer with Mortgage Investors Group. Previously, she worked with Latin and Haitian communities in the Dominican Republic as a Community Economic Development Advisor through the Peace Corps. Marité serves on the board of Centro Hispano of East Tennessee, which promotes empowerment and civic participation of the Latino community through education and social services.

She has a bachelor's in international affairs/international business from

Florida State University and an MBA in global social sustainable enterprise from Colorado State University.

**Brooke Pitchers** (Roane County) is a recent graduate of Roane State Community College in Harriman, where she received an associate's degree in Environmental Health Technology. She also completed a 40-hour Hazardous Waste Operations and Emergency Response certification.

Brooke coaches youth soccer and baseball and has an interest in environmental and public health issues.

## Recommendations

Following are recommendations that ORSSAB approved at its August Annual Planning meeting and voted to send to OREM for consideration. The full text of the recommendations are available on the ORSSAB website, [www.energy.gov/orssab](http://www.energy.gov/orssab).

### Recommendation 240: On the Proposed Environmental Management Disposal Facility

Much of the Manhattan Project legacy waste for which OREM is responsible falls under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, which is a federal law regulating the cleanup of designated sites contaminated with hazardous waste.

CERCLA wastes from cleanup activities at ETTP, ORNL, and Y-12 are in large part disposed of in an existing landfill known as the Environmental Management Waste Management Facility (EMWMF) near Y-12. EMWMF has been actively accepting ORR CERCLA waste since 2002, but its capacity to accept waste will be exhausted in the mid-2020s. Development of a new disposal area, named the Environmental Management Disposal Facility (EMDF), has been proposed by DOE to regulators.

#### Recommendations

ORSSAB supports onsite disposal of OREM CERCLA wastes that meet the onsite waste acceptance criteria. We 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. **Funding:** Ensure that funding is secured and prioritized to provide a reasonable period of overlap no less than two years operation

of the proposed EMDF and the existing EMWMF given the fact that the EMWMF is currently at 75 percent capacity.

2. **Community Engagement:** Although communication with and to the community is part of the CERCLA process, emphasis should be placed on direct and iterative contact with the residential communities that are near the proposed EMDF site. Ideally, this should involve scheduled informational meetings with adjacent communities to ensure visibility regarding proposed plans, while allowing residents the opportunity to learn about the plans, and have their voice heard regarding their concerns. We recommend these meetings include the planning and status of the design and construction efforts and final timelines for completion of each critical phase. These informational meetings should be scheduled to take place as early as possible in the planning stages to adequately address community/public concerns and that meetings are scheduled in sufficient numbers, times and places to allow all interested parties to attend.
3. **Expansion/Additional Capacity:** During the preparation of the Proposed Plan, the ROD and the conceptual and design phases of the EMDF, DOE should evaluate and ensure that the facility will allow for an additional capacity in case that the original capacity is not adequate.
4. **Monitoring:** Actual hydrologic conditions in the proximity of the proposed site for EMDF should be evaluated to mitigate or eliminate any deleterious effects later during construction and operation. Additionally, the evaluation process should include specific lessons learned from

the current facility and results from on-going site investigation/sampling. The evaluation process should be completed before the design phase is finalized.

5. **Budget for Future Monitoring and Maintenance of the Completed Facility:** Funding should be allocated and prioritized for the post-construction phase that includes future monitoring and functioning of the facility for requirements stipulated in the ROD and other relevant documents.
  - a. Seek a mechanism for either DOE or a public-private partnership that would be responsible for the lifetime of the EDMF to provide scheduled periodic maintenance to avoid deterioration of the facility once the facility is at capacity.
  - b. Devise a monitoring and maintenance plan prior to closure of EMDF.

### Recommendation 241: On FY 2020 OREM Budget Priorities

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 (FY), incorporating budget requests from DOE field offices to develop the EM Program budget request to the president.

On May 9, 2018, the Oak Ridge Environmental Management (OREM) program held its annual Community Budget Workshop to discuss the FY 2020 budget formulation process and provide the EM portfolio project directors with an opportunity to talk about priorities for their projects. The workshop provided content and discussions that the Oak Ridge Site Specific Advisory Board (ORSSAB) used

*(See Recommendations on page 7)*

## Board Office Welcomes New Staff



Sara McManamy-Johnson has joined the board's staff as a public affairs specialist.

Sara, an Oak Ridge native and Oak Ridge High School graduate, previously served as marketing and communication specialist for United Way of Williamson County in Franklin, Tenn.

*Sara McManamy-Johnson*

Prior to her work in nonprofit communications, she worked in print journalism, most recently as news editor for The Lebanon Democrat, a five-day daily newspaper in Lebanon, Tenn. During her tenure, she received multiple Tennessee Press Association/University of Tennessee Newspaper Contest awards for her reporting, photography and graphic design.

Sara earned her bachelor's degree in mass communication from Middle Tennessee State University.

## Member Resigns, Accepts New Job

Venita Thomas, who served one term on ORSSAB from July 2016 to June 2018, announced her departure from the board in June due to a potential conflict of interest involving a new job opportunity.



*Venita Thomas*

Venita is now a safety and health representative at Strata-G, which was the firm that provided industrial hygiene and safety oversight for the demolition of the K-25 building at ETTP. She will be working mainly at ETTP but also have some duties dealing with the Biology Complex project at Y-12.

During her two-year term, Venita served on board issue groups drafting recommendations on excess contaminated facilities and waste disposal capacity, among other topics, for OREM. While the board will miss her contributions, members congratulated her on her accomplishment. She will be recognized for her service at the October meeting.

## Recommendations

*(Continued from page 6)*

to draft its recommendations.

ORSSAB focused on general near-term and long-term cleanup priorities identified at the Community Budget Workshop: Complete ETTP cleanup including all demolition and remedial action consistent with CERCLA agreements and implement reindustrialization and historic preservation activities; Disposition ORNL uranium-233 including uranium-233 direct disposition, down-blending operations, and disposal of remaining inventory; Disposition ORNL transuranic waste including disposition of transuranic debris waste and start building the Sludge Processing Facility; Address Y-12 mercury contamination including proper planning for future mercury cleanup; a reduction of mercury in surface water exiting Y-12; and begin addressing mercury-contaminated buildings

### Recommendations

ORSSAB supports OREM's Program Plan and recommends fully funding the

activities that are currently supported for FY 2020. In addition, ORSSAB has identified three priorities for cleanup and recommends that the FY 2020 budget request reflect adequate funding to keep these projects going. Also, when additional funds from suitable plus-ups and savings become available, we recommend that these funds be targeted for these projects:

1. **Complete a groundwater model** that would be usable and agreeable by all parties, within the 2020 Vision for ETTP.
2. **Complete technology selection and commence implementation** phase for treatment of contaminated underground/groundwater plume under the footprint of building K-1401 at ETTP if feasible within the 2020 Vision.
3. **Complete sampling, evaluation and report findings on groundwater contamination** at the southwest side of ORNL bordering the Clinch River.



### Join Us for an Update on OREM Efforts to Assure Waste Disposal Capacity

**6 p.m. Wednesday, Nov. 14**  
**DOE Information Center**  
**1 Science.gov Way**  
**Oak Ridge, TN 37831**

On September 10, OREM released the draft plan for a new waste disposal facility on the Oak Ridge Reservation known as EMDF. It will replace a nearly-full facility and allow OREM to complete its cleanup mission.

Join us to hear the latest on site selection, project design, and how the new facility will allow future cleanup of ORNL and Y-12.

Questions? Contact us at 865 241-4584 or [orssab@orem.doe.gov](mailto:orssab@orem.doe.gov)



## ORSSAB Wants You! Annual Member Recruitment Drive Underway

Each year, ORSSAB seeks candidates to join the board and contribute to shaping the Department of Energy's environmental cleanup, monitoring, and stewardship activities in Oak Ridge.

**Apply online.** Tell us a bit about yourself and why you would be a good candidate. You must be a legal resident or U.S. Citizen not employed by the Federal Government.

**No technical expertise is necessary.** Members are chosen to reflect the diversity of gender, race, occupations and interests of people living near reservation. Training is provided both onsite and through sponsored opportunities to attend related events.

**Help ensure a safe, healthy future for your community.** Some

of the board's latest activities include recommendations on OREM budget priorities and a new waste disposal facility. Members recently toured ORNL and Y-12 for a first-hand look at excess contaminated facilities. The board encourages historic preservation efforts by DOE and suggested topics and displays for the K-25 History Center.

**Your voice matters.** DOE seeks interested residents of the multi-county area surrounding the Oak Ridge Reservation. As an active member, you will volunteer just 3 hours per month, on average.

**Apply now.** Potential members can help recruit: Share this opportunity with a friend, family member, or colleague!

### APPLY TODAY

To learn more about ORSSAB or how to become a member, visit us online or contact our board offices.

[www.energy.gov/orssab](http://www.energy.gov/orssab)

(865) 241-4584  
[orssab@orem.doe.gov](mailto:orssab@orem.doe.gov)



**ABBREVIATIONS**

DOE – Department of Energy  
EM – Environmental Management  
EMDF – Environmental Management Disposal Facility  
EMWMF – Environmental Management Waste Management Facility  
ETTP – East Tennessee Technology Park  
OREM – Oak Ridge Environmental Management  
ORNL – Oak Ridge National Laboratory  
ORR – Oak Ridge Reservation  
ORSSAB – Oak Ridge Site Specific Advisory Board  
TDED Tennessee Department of Environment & Conservation  
UCOR – URS | CH2M Oak Ridge  
WIPP – Waste Isolation Pilot Plant  
Y-12 – Y-12 National Security Complex

**UPCOMING MEETINGS**

Meetings are held at 6 p.m. in the DOE Information Center, 1 Science.gov Way, Oak Ridge, TN, unless noted otherwise.  
EM & Stewardship Committee: Wednesday, October 24  
ORSSAB Board: Wednesday, November 14

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