

# 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

## DOE Aims to ‘Meet People Where They Are’ When Telling the Oak Ridge Story to Stakeholders Whether Online or in Person, Verbally or Visually

If you work for the Department of Energy’s Oak Ridge Office of Environmental Management (DOE OREM), it’s easy to see the work: Buildings come down, land is transferred, and private investment recruited. For everyone else, OREM communications must cut through the constant noise of emails, texts, news and other demands on attention to make sure our region and nation understand and support work on the Oak Ridge Reservation (ORR).

That’s critical, said Ben Williams, communications specialist for OREM, because knowledge of Oak Ridge’s impact is vital to the continued success of the cleanup mission. The Oak Ridge Site Specific Advisory Board (ORSSAB) is part of that strategy as a way to incorporate the local community in decisions.

Williams joined ORSSAB at its September 2017 meeting to share the diversity of effort DOE puts into telling the Oak Ridge success story.

“It’s not just getting stories in the newspaper,” he said. “With each audience there’s a different message, a different goal, and a different approach because everyone has their own focus.”

Congress, for example, needs to know OREM is a good steward of



*OREM’s outreach efforts cover a variety of methods, from direct outreach in person or on social media to working with members of area news outlets or colleagues throughout the DOE complex.*

tax dollars and wants more specific financial and technical information. When applying to DOE headquarters for project funding, Oak Ridge vies with 17 other sites and must not just have good projects, but stand out among many. Regulators need to know we’re making decisions that are best for the community, he said. And keeping all of OREM’s employees informed

and on the same page is an easy way to promote success.

Of utmost importance, is to keep communication “simple, relatable, and meaningful” despite the complex, technical nature of the DOE world.

Williams points to OREM’s recently redesigned website, [energy.gov/orem](http://energy.gov/orem), as “the hub” from which to reach all of the various content available to the public. However, the fastest growing outreach method, he said, is through the office’s social media accounts.

“We have one of the most active Facebook accounts in the EM complex,” he said of OREM. “We’re successful on YouTube and trying to grow Twitter right now.”

*(See Communications on page 7*

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## Reservation Update

### DOE Officially Promotes Jay Mullis to Manager of OREM



Jay Mullis

In November, DOE named Jay Mullis the manager of OREM. He had served as OREM acting manager since 2016 and deputy manager since 2015.

Mullis brings 30 years of federal service to the position with 21 years spent in Oak Ridge cleanup.

In a recent interview, he said his top priority was to make sure the cleanup program maintains its momentum. That means pushing forward to complete cleanup at East Tennessee Technology Park (ETTP) on schedule, laying the foundation for new work at Y-12 National Security Complex (Y-12) and Oak Ridge National Laboratory (ORNL), and continuing to focus on eliminating Oak Ridge's waste inventory, he said.

### TN Funds \$15M for Airport Initiative, Awaits FAA Approval

The state of Tennessee has provided \$15 million in funding for the proposed airport at ETTP through an initiative to impact job creation and investment opportunities in the state's aerospace industry.

The funding is contingent on approval of the airport by the Federal Aviation Administration (FAA) and would go to the Metropolitan Knoxville Airport Authority, which would own and operate the facility.

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Officials with the project say they have commitments for another \$15 million in the works for a total of about \$33 million. The remainder of the airport's expected \$40 million to \$45 million costs would likely be paid from federal funding.

### MCLinc to Double Employment in New Heritage Center HQ

Materials and Chemistry Laboratory, Inc. (MCLinc) plans to celebrate its 20th anniversary next year in a new 29,000-square-foot headquarters and lab facility at Heritage Center. The company currently occupies a laboratory facility at ETTP that was built to support the Manhattan Project and is slated for demolition by OREM starting this fall.

The company received a tax abatement for the project from the Oak Ridge Industrial Development Board in October. It will invest \$5 million building the facility and plans to double its workforce to about 46 people over five years.

### Contractor Removes Waste from ORNL Early, Saving \$9M

After two years of effort, half of legacy waste materials containing Uranium-233 have been removed from Building 3019 at ORNL. The shipments were completed in August, but only revealed recently due to security concerns.

The project was done 10 months ahead of schedule by cleanup contractor Isotek Systems at a savings of approximately \$9 million. The remaining waste will need to be processed before disposal. That operation will take place in nearby Building 2026, which OREM recently acquired from the DOE Office of Science. The building requires some alterations before work can proceed, but processing operations are estimated to start in 2019.

### Crews Demolish Another Piece of Poplar Creek Facilities

Cleanup contractor URS|CH2M Oak Ridge (UCOR) has completed demolition of building K-1203. It was previously used to treat and process sanitary sewage waste from ETTP and was shut down in 2008.

K-1203 is the third of 11 buildings scheduled to be removed from the site. The contractor is on track to complete work about \$150 million under its original \$2.5 billion budget. The K-832-H Cooling Tower and the K-832 Cooling Water Pumphouse were removed earlier this year.

### Recent ETTP Transfers Include Some of Biggest Parcels to Date


Land previously home to the K-31 and K-33 sites at ETTP is now in the hands of the Community Reuse Organization of East Tennessee (CROET). The combined parcel totals nearly 200 acres and is the largest single piece of land available at the site.

The land is mostly flat, making it an ideal construction site, which, along with river and rail access, should make it attractive to a major manufacturer.

DOE has transferred more than 1,000 acres of land at ETTP and nearby Horizon Center back to the community as part of its reindustrialization efforts.

Just across Poplar Creek from K-31 and K-33 is another sizeable part of the property that will soon be available. The transfer of Duct Island and the former Powerhouse Area was initiated in the last quarter of 2017. That will add another 200 acres to transfer totals.

### UCOR Exceeds Goals for Small Business Purchasing, Contracts

Cleanup contractor UCOR awarded \$134 million, or 83 percent, of its contracts and purchases in FY17 to small businesses, eclipsing its goal of 65 percent. 



## Mercury Treatment Facility Paves Way for Y-12 Cleanup, Modernization

DOE kicked off construction of its new Mercury Treatment Facility at Y-12 with a groundbreaking event in November.

“This project paves the way for critical infrastructure that will enable us to begin major demolition at Y-12,” said Jay Mullis, OREM manager. “We are incredibly grateful for the support we’ve received from our elected officials, and we are eager to get work underway to advance environmental cleanup at one of the nation’s most important national security sites.”

When operational, the facility will be able to treat 3,000 gallons of water per minute and include a 2 million gallon storage tank to collect stormwater. The facility will be split over two areas. The headworks facility will capture water traveling from the western side of the site at Outfall 200 – the primary point where Y-12’s storm drain system discharges. The water will then flow through a pipeline to the treatment facility on the eastern side of the site.

Having the facility in place before



DOE, state and local officials break ground for the new Mercury Treatment Facility at Y-12.

demolition and cleanup of Y-12 facilities begins will minimize the amounts of mercury released by those operations. The plant is expected to reduce mercury in water leaving Y-12 through Upper East Fork Poplar Creek by about 84 percent.

GEM Technologies of Knoxville is performing limited demolition of existing abandoned utilities and the

extension of new utilities at the site under a \$1.4 million contract awarded by cleanup contractor UCOR in September.

Building construction is scheduled to start in late 2018 and the facility should be in operation by 2022. 🌱

# Oak Ridge Site Specific Advisory Board

## NEW MEMBER RECRUITMENT

Join us in making decisions because your input matters.

**How do I become a member?**

Call the board offices at (865) 241-4583 or email [orssab@orem.doe.gov](mailto:orssab@orem.doe.gov). Or visit our website at [www.energy.gov/orssab](http://www.energy.gov/orssab).

**What is the Oak Ridge Site Specific Advisory Board (ORSSAB)?**

- ORSSAB is a federally chartered volunteer citizens’ advisory board to the Department of Energy’s Environmental Management Program in Oak Ridge.
- The board provides DOE with advice and recommendations concerning environmental remediation, waste management, monitoring and surveillance of legacy waste, and other issues.
- Meetings are held on the second and fourth Wednesday of most months from 6:00 to 7:30 p.m. in Oak Ridge.
- The board is composed of 22 members chosen to reflect the diversity of gender, race, occupation, and interests of persons living near the DOE Oak Ridge Reservation. Technical expertise is not required for membership, as a broad range of backgrounds and viewpoints is preferred.

**APPLICATION DEADLINE - JANUARY 22**

## Five Big OR Projects Initiated After New DOE 45-Day Review Process



*Jay Mullis, OREM Manager, reports on findings of the 45-Day Review at the ORSSAB November 2017 meeting.*

In a bid to accelerate cleanup goals and position sites for success, OREM Acting Assistant Secretary Jim Owendoff launched a review process when he assumed the position in June. He sent out a call for ideas to fast-track projects, eliminate obstacles or solve problems affecting the cleanup mission.

EM sites around the country delivered, and at the November ORSSAB meeting, OREM Manager Jay Mullis gave the board some insight on how the results could affect Oak Ridge.

Some items identified in the 45-day review are not OREM's, but could impact it, he said. Those include alternatives for the disposition of transuranic waste from the West Valley Demonstration Project, eliminating the moratorium/suspension on recycling of certain materials that meet free release criteria, and various improvements to internal enterprise business systems.

Of the 14 or so items OREM has chosen to pursue, Mullis' presentation addressed five involving fieldwork that directly affect Oak Ridge. Four should be complete by the end of the year.

1. Establish a path forward for non-radiologically contaminated elemental mercury.

2. Pursue benefits of in-cell macro encapsulation.
3. Evaluate long-term in-place stabilization for some transuranic (TRU) waste at the Molten Salt Reactor at ORNL.
4. Accelerate retrieval of medical isotopes from Uranium 233 waste material.
5. Implement use of remote-handled waste overpacks to enable disposal of ORNL remote-handled TRU waste at the Waste Isolation Pilot Plant (WIPP).


None of these projects, he added, should require additional funding and should actually save money. As an example, he noted that getting rid of mercury in the Alpha 5 building at Y-12 is far more cost effective than storing it securely indefinitely.

Similarly, entombing the Molten Salt Reactor may be able to provide both fiscal and safety benefits compared to removing and treating the hazardous materials. While the fuel — mostly plutonium and uranium along with a few other fission products — was removed about 10 years ago, traces remain along with two reactor fuel tanks and one drain tank. The tank

area is below ground and currently shielded with concrete, but the remains underneath produce radiation in quantities that would be unsafe for cleanup personnel. The salt removal also carries a significant risk of dispersing contaminated material into the environment. Similar projects have been successful at DOE sites in Hanford, Wash. and Aiken, S.C.

As for the processing of U-233, OREM is pursuing an innovative approach that would involve a public-private partnership between EM, its cleanup contractor Isotek, and a private medical isotope company. The company is set to invest funds in the project, which would accelerate cleanup by about five years, said Mullis. In return, EM would add a few simple steps to the required downblending process before the waste is disposed to extract thorium, which contains isotopes used in cancer research and treatment, among other avenues.

“For us, it’s a win-win-win,” said Mullis. “This is a great project that could help advance scientific research and benefit many patients as well.”

Negotiations between Isotek and the medical company are ongoing. 



## ORSSAB Members Tour Hanford, Share Successes at Chairs Meeting

ORSSAB board officers Dennis Wilson and Richard Burroughs traveled to Pasco, Washington in October to attend the Fall EM SSAB Chairs meeting hosted by the Hanford site. The meetings, which rotate among the eight SSAB sites, allow board leaders to hear regular updates from DOE headquarters, share best practices with other sites, and develop joint recommendations.

Stacy Charboneau, associate principal deputy assistant secretary for field operations for DOE-EM launched the multi-day event with an update on the EM program.

She touched on several new projects at DOE sites in the West that are underway and noted the Trump Administration has been very supportive of EM's cleanup mission.

Regulatory reform, she said, is one focus of the administration that could benefit DOE as it considers what regulations are holding back project progress and how to improve that.

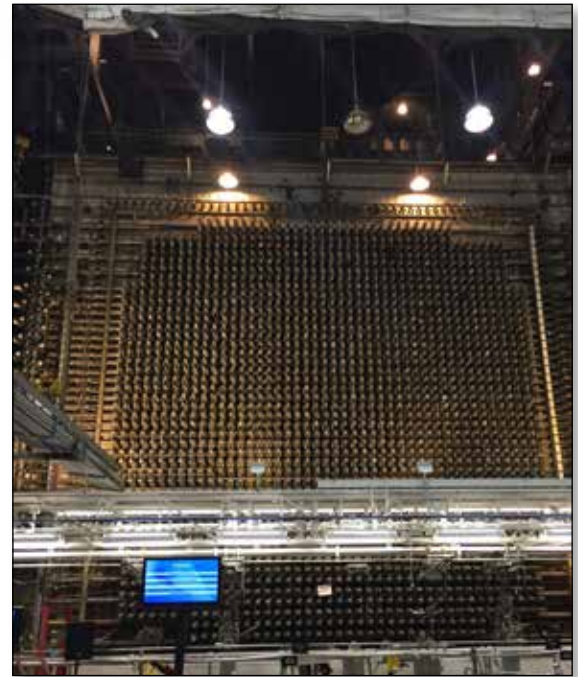
Steve Trischman, DOE-EM

director of budget and planning, followed with a budget update. DOE's FY18 budget request is looking good, he said, but challenging issues remain, particularly in its liability for maintaining the sites. Maintenance consumes an ever-larger portion of the budget he noted, so sites must focus on ways to speed up their progress.

There is new funding this fiscal year for excess facilities, he said, including for the Biology Complex at ORNL.

Transportation and infrastructure were big topics during the meeting. It was suggested that DOE update the boards on these issues to provide an opportunity for recommendations.

Copies of the speakers' presentations as well as meeting minutes for both days are available on the EM SSAB website, [energy.gov/emssab](http://energy.gov/emssab). 🌱



ORSSAB Chair Dennis Wilson and other meeting attendees toured Hanford's B-Reactor, which has been remodeled as a museum and part of the Manhattan Project National Historical Park.

## 10-year Plan Update Details Progress in Past Two Years, Future Goals

Every two years, OREM documents its progress in its 10-year cleanup plan. A new update, released in November, reflects work at ETTP and details its cleanup goals at Y-12 and ORNL.

In the last two years, Oak Ridge became the first site in the world to remove its former gaseous diffusion uranium enrichment facilities — a footprint of 4.5 million square feet. The K-25 site is now within the Manhattan Project National Historic Park. Also, in accordance with historic preservation commitments, OREM is nearing construction on the K-25 History Center.

The rest of the ETTP is rapidly growing its potential as an economic engine for the region. Some of the largest land transfers to date, spanning

hundreds of acres, are giving CROET the resources to attract major industry interest.

A major step toward cleanup at Y-12 is the groundbreaking for the Mercury Treatment Facility (see *story on page 3*).

Projects are also in the works at ORNL. In 2017, OREM removed half of the U-233 stored in Building 3019 there. It also took ownership of Building 2026, where remaining U-233 will be processed following building renovations. The completion of this project will significantly reduce security costs and risks at ORNL. Completion of these goals, and others in the report, will enhance safety and enable Oak Ridge to continue its important science and national security missions at Y-12 and ORNL. 🌱



The full report can be downloaded at [energy.gov/orem](http://energy.gov/orem).

## Recent Recommendations

Following is a summary of the recommendations ORSSAB has recently approved and voted to send to DOE for consideration.

ORSSAB was one of the SSABs at the Fall Chairs Meeting in October to jointly endorse the following two items, which were initially written at the Spring Chairs Meeting in May.

The full text of the recommendations are available at [www.energy.gov/orssab](http://www.energy.gov/orssab).

### Recommendation 237: Above Ground Storage at the Waste Isolation Pilot Plant (WIPP)

The recommendation said adding temporary storage capacity has the potential to make the transuranic (TRU) waste disposal process at WIPP more efficient.

The recommendation was related to DOE's submittal of a modification to its Class 3 Hazardous Waste Disposal Permit with the New Mexico Environment Department.

#### Recommendations

Board members were concerned with the lack of available information on the cost of this facility, or the expected benefits to be derived in terms of the more efficient operation of the WIPP facility, or the reduction in risk around the DOE complex.

As such, their recommendations were:

1. For DOE to seek further efficiencies in the WIPP TRU program in order to streamline, expand and accelerate TRU waste disposition.
2. That DOE prepare for public review information on the expected benefits and costs of this proposed addition to the WIPP facility in terms of more efficient operation, overall reduction of risk around the DOE complex from an increased rate of disposal of

TRU waste, and the impact of the cost of this facility on other DOE facilities.

Further, the boards said that allowing nearly a one-year buffer of TRU waste inventory to be safely stored above ground at WIPP for a period of up to one year, would be an appropriate time frame.

Other boards signing on to the recommendation were Idaho National Laboratory Site EM Citizens Advisory Board, Nevada SSAB, Paducah Citizens Advisory Board, Savannah River Site Citizens Advisory Board, and the Northern New Mexico Citizens Advisory Board.

An official response to the recommendation is expected in early 2018.

### Recommendation 238: EM Performance Road Map and Communication Strategy

Recommendation 238 came from a request by DOE for the EMSSABs to provide ideas for ways to better identify project accomplishments, risks and challenges associated with cleanup activities to the public, and was part of the impetus for the communications briefing featured in this issue's cover story.


#### Recommendations

Board members eventually decided that two visual roadmaps were needed, not just a text document or outline — one that depicts each site's schedule and key milestones and another showing DOE-EM's key cleanup milestones overall.

As a complex-wide communication metric, the members recommended DOE-EM identify successfully completed projects as benchmarks (e.g., Fernald and Rocky Flats cleanup sites) when developing performance metrics for similar remediation projects. These metrics might help the public to better understand the

project lifecycles and the application of performance metrics used to measure successful project completion.

Members also included a number of suggestions on how DOE should develop these resources:

- **Revise** metrics so the public can better understand the status of cleanup projects across the complex in the near-term with the intent to quantify and build transparency into the status of specific projects as they move along the continuum of meeting agreements and legally binding dates for cleanup completion.
- **Utilize** existing resources and simple, visual examples within the department and other government agencies (e.g., U.S. Geological Survey, National Oceanic and Atmospheric Administration).
- **Include** complex-wide and individual site matrices, information, and success data.
- **Communicate** crucial, high-level performance indicators that clearly show if schedules are being compromised. In particular, members suggested removing "Safeguards and Securities" and hotel costs from the budget bundle and giving them their own line items to clearly identify significant costs that are not actual cleanup actions.
- **Identify** key project assumptions and project risks that are crucial to each individual project and the complex-wide schedule.
- **Share** the challenges and situational realities involved in projects to demonstrate and communicate that DOE understands and acknowledges the difficulties inherent to these complex cleanup missions. 

## Communications

(Continued from page 1)

The Facebook page, [facebook.com/Department-of-Energy-Oak-Ridge-Office-486186205206](https://www.facebook.com/Department-of-Energy-Oak-Ridge-Office-486186205206), has about 8,000 likes. OREM is also developing a growing amount of video content to help educate about its mission. It posted about one video per month on its YouTube channel, [youtube.com/user/usdoeoakridge](https://www.youtube.com/user/usdoeoakridge), in 2017, a big increase from the account's inception five years ago, when it might post two or three videos a year. Videos of the K-25 demolition progress remain the most popular; however, a new "Project 101" series of videos is gaining ground. The series was a result of board members' feedback about needing to understand OREM projects, Williams said, and fits right in with changing trends among the public that include preferring video consumption to reading and getting more news online. One recent video reached 25,000 people on Facebook in the first week it was shown.

And there's another benefit here, Williams notes. In the past, going to the media — a third party — was

the only option. Now however, social media provides a way to directly tell our message and have a two-way conversation.

Oak Ridge is also regularly featured on *EM Update*, a nationwide email newsletter by headquarters, which just increased to weekly releases due to demand.

The newsletter blends new and traditional outreach methods — many of its 100,000 (and growing) subscribers are members of the media, Williams said. That's good because traditional outlets are still one of the best ways to get the biggest reach.

"We make sure what goes in that newsletter is new content, breaking news, and that has driven a lot of interest and coverage for our program," he added.

Following its release in the newsletter, news is also sent out via regular channels. Press releases go directly to news outlets and are posted on the website. These may result in news coverage or, sometimes, OREM may be invited to write editorials and give its own expert opinion on topics.

OREM also regularly publishes its own informational documents. Three of those are of particular interest to the

public, Williams said.

- *Cleanup Progress*, which is released in January and covers achievements in the last year;
- OREM's *10-Year Program Plan* which is updated every two years (see story on page 5); and
- *Public Involvement Plan*, which details opportunities for the public to participate in decisions and discussion on the remediation of the Oak Ridge site. It is updated every three years.

The most recent issue of each is available on the OREM website. Older editions — and many other public documents — can be found at the DOE Information Center. More information and a document search function is available at [doeic.science.energy.gov](https://www.doeic.science.energy.gov).

## FY 2018 ORSSAB Workplan Topics

Board recommendations are based on topics presented by DOE at the board's monthly meetings.

The board meets the second Wednesday of most months. In-depth discussion follows in the EM & Stewardship Committee meeting on the fourth Wednesday.

### February

Excess Contaminated Facilities

### March

Ongoing Efforts to Assure Waste Disposal Capacity

### April

FY2020 Budget Formulation and Prioritization of Projects/Baseline

### May

Meeting replaced by DOE Community Budget Workshop

### June

Ongoing Groundwater Efforts

### July

No meeting due to new member training/tours

### August

ORSSAB Annual Planning Meeting

### September

Vision 2020: Planning for the Future of ETTP Including Reuse, Historic Preservation and Stewardship



## Join Us for an Update on Excess Contaminated Facilities

6 p.m. Wednesday, February 14

DOE Information Center  
1 Science.gov Way  
Oak Ridge, TN 37831

Oak Ridge has more than 350 excess facilities totaling more than 6 million square feet. That's more than a quarter of the high-risk excess facilities in the entire DOE complex — more than any other site.

Cleanup of these areas at ORNL and Y-12 are planned and will become the major focus of OREM in just a few years as work wraps up at ETTP.

Questions? Call the ORSSAB office at (865) 241-4583 or (865) 241-4584.



## History Center Event Previews Ambitious Goals of K-25 Storytellers


More than 75 employees, legislators, local representatives, signatory and consulting party members, and other stakeholders got a sneak peek at the K-25 History Center in October, when DOE celebrated the museum project as part of Oak Ridge's 75th anniversary festivities. After the event luncheon, members of the public were also invited to tour the future History Center.

OREM expects to begin building the history center in 2018. The new facility will feature a theater and a 4,400-square-foot exhibit gallery with oral histories and artifacts commemorating K-25's history. The site will also include the Equipment Building, which replicates the exterior of K-25 and houses a cross-section



*A rendering of the planned Mercury Treatment Facility at Y-12 in Oak Ridge.*

of gaseous diffusion technology, and 70-foot Viewing Tower with an observation deck. The actual K-25 foundation slab, now part of the

Manhattan Project National Historical Park, is adjacent to the site of the Equipment Building and Viewing Tower. 



### Oak Ridge Site Specific Advisory Board

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[orssab@orem.doe.gov](mailto:orssab@orem.doe.gov)

### UPCOMING MEETINGS

Meetings are held at 6 p.m. in the DOE Information Center, 1 Science.gov Way, Oak Ridge, TN, unless noted otherwise.

**ORSSAB Board:** Wednesday, February 14

**EM & Stewardship Committee:** Wednesday, February 28

### ABBREVIATIONS

**CROET** — Community Reuse Organization of East Tennessee  
**DOE** — Department of Energy  
**EM** — Environmental Management  
**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  
**TRU** — Transuranic Waste  
**UCOR** — URS | CH2M Oak Ridge  
**WIPP** — Waste Isolation Pilot Plant  
**Y-12** — Y-12 National Security Complex

