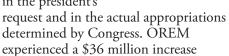
## Budgeting for a Clean Future in Oak Ridge

Developing a budget for the massive cleanup efforts undertaken by DOE's Oak Ridge Office of Environmental Management (OREM) requires advanced planning and careful prioritization of the program's nearterm and long-term goals. DOE's vision for a clean future largely depends upon funding designated for the Oak Ridge site by Congress each fiscal year.

Appropriations for Oak Ridge cleanup comprise only a part of the

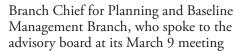
overall budget for DOE's EM Program, which includes a number of additional sites also dealing with the lingering inheritances of the Manhattan Project. The Oak Ridge site has traditionally fared well both in the president's



in its enacted budget for FY 2014, meaning the site received \$36 million above what the president even requested for the Oak Ridge cleanup mission. In FY 2015, the site received \$46 million above the president's request. For the current year, OREM welcomed a generous "plus-up" from Congress. Appropriations for FY 2016 were \$102 million above President Obama's request for the program.

"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," said Karen Thompson, OREM's



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on developing the FY 2018 budget.

Thompson provided a table to show the impact recent increases in the current enacted budget have had on FY 2016 work scope. Highlights include a sizable increase in funding for Transuranic (TRU) Waste Operations, which has been applied toward continued processing of TRU waste debris. Twenty-seven million dollars in appropriations was added to OREM's budget to begin addressing excess facilities at ORNL and Y-12. The boost will be applied to immediate safety concerns and characterization work at seven deteriorating facilities on

(Continued on page 2)

# There is still much work to do - PeatFV 2022 Activities - Groundwalar - Complete Processing of Ressaring U-233 Malerial - Complete Processing Pacifity - Complete P-12 and ORNA. Cleanup

Karen Thompson, DOE, updates ORSSAB on FY18 spending priorities at its March 9, 2016, meeting.

# ORSSAB to Host National Conference in April

ORSSAB will host the semi-annual meeting of the EM Site-Specific Advisory Board on April 19-21.

Representatives from each of the eight site-specific advisory boards joined under DOE's Environmental

Management program as the EM SSAB will convene in Oak Ridge in April for the 2016 Spring Chairs Meeting.

This year's program will include a



site tour of the Oak Ridge Reservation on Tuesday, April 19. A full day of meetings on Wednesday, April 20, and a half day on Thursday, April 21 will take place at the DoubleTree Hotel on Illinois Ave. The meetings are free and open to the public.

Presentations by DOE officials will address common interests among the individual advisory boards located across the

U.S. Expected topics include site restoration, reindustrialization and land use, and waste disposition.

(Continued on page 2)



## FY 2018 Budget Planning Underway

(Continued from page 1)

the two sites. Y-12's Alpha-4 building, often in the spotlight as an example of the site's collapsing architecture, will receive a new roof as part of an effort to maintain the structural integrity and compliance of facilities slated for later decontamination and decommissioning (D&D). The biggest increase for FY 2016, an additional \$40 million in D&D funds for cleanup at ETTP, will continue to support cleanup efforts currently underway at the site.

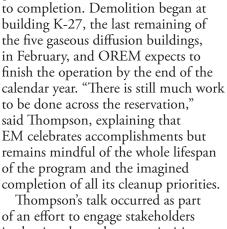
Thompson's presentation provided a

future milestones as "visions." Nearterm campaigns include:

- Vision 2016—An effort to complete the demolition and removal of all five gaseous diffusion buildings at 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 Y-12.

Achieving these milestones

Oak Ridge is only a part of the overall EM



takes tremendous effort. The nearest

goal, Vision 2016, is well on its way

Thompson's talk occurred as part of an effort to engage stakeholders in shaping those cleanup priorities. The site-specific FY 2018 budget for OREM, which was 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 EM's overall budget for all of its locations.

"There are opportunities for public input during the budget planning process," said Thompson. A budget workshop tentatively planned for May 3, similar

to the budget workshops organized by DOE for the past two years, will solicit advice from interest groups and leadership within the Oak Ridge community on project prioritization.

ORSSAB is strongly encouraged to make a recommendation on the FY 2018 budget priorities, said Dave Adler, DOE's Alternate Deputy Designated Federal Officer for Oak Ridge.

ORSSAB will attend the budget workshop in the spring. Following that meeting, the board's EM & Stewardship Committee will discuss drafting a recommendation on the FY 2018 budget for DOE to consider.



general overview of fiscal year planning and stages of budget development as well as addressed specific near-term and long-term spending priorities for cleanup operations across ORR sites.

OREM expresses the program's

#### ORSSAB Hosts EM SSAB

(Continued from page 1)

Dr. Monica Regalbuto, DOE's Assistant Secretary for EM, is expected to deliver the EM Program Update.

Representatives from each site-specific advisory board will provide updates on recent activities and accomplishments. ORSSAB's chair, Belinda Price, will share news of recent recommendations made by the Oak Ridge board, public outreach efforts, and progress toward EM milestones, such as the near-completion of "Vision 2016," the demolition and cleanup of all five gaseous diffusion buildings at ETTP.

ORSSAB last hosted the conference in 2010.



The EM SSAB is comprised of 8 individual site-specific advisory boards from Idaho, Kentucky, Nevada, New Mexico, Ohio, South Carolina, Tennessee, and Washington.

# Reservation Update Demolition Begins on K-27

Demolition of K-27, the last of the five gaseous diffusion buildings at ETTP began mid-morning on February 8. Demolition of the fourstory, 383,000-square-foot structure is one of EM's highest cleanup priorities. DOE's Vision 2016 calls for the demolition to be completed by December. As the last uranium enrichment building falls, it will mark the first-ever demolition and cleanup of a gaseous diffusion complex anywhere.



Deactivation of K-27, completed in January, included removal of hazardous and radioactive materials to ensure protection of workers, the public, and environment, as well as the isolation of utility systems and steps to ensure the structural stability prior to demolition.

K-27's demise follows the successful demolition of four other uranium enrichment process buildings, including K-29, K-33, K-31, and the mile-long K-25 building. These facilities once produced highly enriched uranium for national defense and commercial energy production.

DOE's goal is to transform the former nuclear production site into a private sector industrial park.

#### Funding for Oak Ridge EM Down for FY 2017

DOE Assistant Secretary for EM Monica Regalbuto announced the department's funding request to Congress for FY 2017 in early February. That request includes \$391.4 million for the Oak Ridge EM program. The proposed funding level is below the current year's appropriation for Oak Ridge of \$468 million, which is the highest in recent years.

The EM budget request nationwide is \$6.1 billion for FY 2017.

Site-specific requests are:

- Hanford, Washington (includes the Office of River Protection and the Richlands Operations Office) – \$2.3 billion
- Savannah River Site -\$1.45 billion
- Oak Ridge \$391 million
- Idaho National Lab -\$370 million

- Portsmouth, Ohio \$323 million
- Paducah, Kentucky \$272 million
- Los Alamos, New Mexico \$189 million
- Nevada National Security Site -\$65 million.





Left, demolition begins at building K-27 on February 8, 2016. Pictured above, ORSSAB Secretary Dave Hemelright (left) with EM Manager for Oak Ridge Sue Cange (center), and Ken Rueter (right), UCOR president and project manager, at K-27 demolition ceremony.

#### ORSSAB Views Groundwater Models at Leidos



EM & Stewardship Committee views 3D computer modeling for DOE's Groundwater Monitoring Program.

ORSSAB's EM & Stewardship Committee met at Leidos Engineering in February to learn more about DOE's efforts to monitor groundwater flow and potential sites of groundwater contamination across the ORR. The committee was invited to a presentation by Leidos technical staff on 3D computer modeling currently in the works as part of DOE's efforts to produce a regional groundwater flow model. Once complete, the model will support the understanding of potential off-site migration pathways and aid in future

groundwater decision-making across the reservation.

Dr. Alauddin Khan and Bob Gelinas of Leidos provided a regional groundwater flow model status report at the February presentation.



#### DOE Appoints Two New Members

DOE has appointed two new members to ORSSAB.

The pair were welcomed to the board at its February 10 meeting.

Kennetha Eikelberg joins the board as a self-employed corporate regulatory compliance consultant

with more than 25 years of industry experience and extensive knowledge of Oak Ridge cleanup efforts. She previously served as a contract directives manager for the TRU Waste Processing Center in Oak Ridge, and prior to that as a work control planner and engineer with Bechtel Jacobs on the decontamination and decommissioning of buildings at ETTP.

Kennetha received her A.S. in Civil Engineering Technology and her B.S.

in Business from Purdue University, as well as an M.B.A. from American Intercontinental University.

Elizabeth Ross joins ORSSAB as the Vice President and Knoxville Branch Manager at Engineering Consulting Services Central (ECS),



Eikelberg (left) and Ross (right) joined ORSSAB in February.

which provides geotechnical engineering, environmental consulting, construction materials testing, and facilities engineering services. A former OSHA Health Compliance Officer with over 15 years of technical experience, she currently serves as the

> lead Environmental Principal for Indoor Air Quality services for ECS Carolinas and ECS Central.

Elizabeth received her B.S. in Biology from Winthrop University in Rock Hill, South Carolina, and an M.S. in Industrial Hygiene from Montana Tech of the University of Montana in Butte. She is a member of the **Environmental Information** Association and has an interest in environmental and economic development issues.

#### Retiring Board Members Recognized for Service

Two ORSSAB members relinquished their seats on the federal-chartered citizens' panel after completing their terms in January. ORSSAB members Lisa Hagy of Alcoa and Corkie Staley of Oak Ridge both served four years on the Oak Ridge board.

Lisa Hagy and Corkie Staley were recognized for their service by DOE and ORSSAB at the monthly meeting.

"We thank you for your service," said Susan Cange, DOE Deputy Designated Federal Officer and

Manager of the Oak Ridge EM Program. "I myself will miss you, and I know the entire board feels the same wav."

Board chair Belinda Price

also thanked the



Lisa Hagy

pair for their time. "Your contributions are appreciated. You have both been

instrumental in the success of our board."

Hagy works as a financial services representative with First Tennessee Bank and supports a number of local causes and community organizations as a volunteer, including United Way, and has also served on a domestic abuse shelter board.

Staley retired as a teacher from Oak Ridge City Schools in 2011. She is a past president of the Oak Ridge Education Association and a past member of



Corkie Staley

the Tennessee Education Association Board of Directors. An advocate for community enrichment, Staley currently serves on a committee for the Center for Oak Ridge Oral History and supports its efforts to collect and preserve the story of Oak Ridge as told

by its citizens. Staley's four-year term on the board was preceded by a twoyear term from 2000 to 2002, bringing her total service on the board to six years.



ORSSAB recruits new members each spring. Applications are available online at energy.gov/orssab.

#### Board Member Donald Mei Can Do It All

In his youth, Donald Mei could shoot a speck of chalk with an M-1 Garand, a feat of marksmanship he was called upon to demonstrate in his high school fairs in Taiwan. "We used a special bullet with a lower yield," he explained, "so the distance was limited to 25 meters." "I nicked the target, and 'poof.' A little flag went up to signal the strike." A perfect shot.

Perfection continued to punctuate Donald's life. He studied at Cheng Kung University (CKU) in Taiwan, and after graduating with a degree in physics, he went to work for the Institute of Nuclear Energy Research (INER). Donald claimed he was not a good student as an undergrad but added with a smirk, "In those days, I was exceptional at playing pool." When Taiwan's institute offered him the opportunity to attend graduate school in Tennessee, Donald jumped at the chance, certain it would advance his career. The trip was not without its drawbacks, however, since INER would not allow Donald's wife Gloria to attend graduate school until Donald had completed his program and returned to Taiwan. Graduate school was a new experience for Donald with motivations unlike his days at CKU. "Then I went to school for my parents. Now I will go for myself," he determined. Also eager to return home to his family, Donald applied himself to his studies, earning a master's degree in health physics from the University of Tennessee. His wife Gloria was not to be outdone. After Donald's return, she attended Purdue's graduate program. "She completed her degree in 11 months and was back in Taiwan," Donald remembered proudly.

In 1983, the Meis came to the U.S. with their two young children. Donald and Gloria continued their academic pursuits, each earning a Ph.D. in nuclear engineering from Kansas State University. After graduation, Donald landed a job with Duke Energy. He excelled at the North Carolina-based power company, rising through its

ranks to become the Supervising Engineer and Technical Manager in the Radiation Protection Section. When Gloria began working for ORNL, Donald was traveling the country as a supervisor of four facilities with Duke, while also commuting to Oak Ridge. The long-time company man decided it was time to retire.



Donald and Gloria Mei

Life in Oak Ridge has been good to the Meis. They raised two children, a son and daughter, both of whom excelled at Oak Ridge High School and had their pick of colleges and careers. There's no shortage of overachievers among the Meis. Donald and Gloria's son Heng started a successful venture capital company. Their daughter Alexis became a lawyer.

Family life looks good on Donald. He beams with pride at his wife's accomplishments and children's successes, but he visibly softens, smiling brightly, when asked about his four young grandchildren.

Donald's retirement has been as rich and full a life as his career. After settling in Oak Ridge, he became interested in the cleanup work being done by DOE. He may also have gotten a little push from Gloria, he noted, who had already served a term of 6+ years. Donald joined the board in 2012 and has contributed a personal passion for wildlife and environmental preservation as well as his years of industry expertise in health physics and radiation protection. When asked about his personal investment in

environmental cleanup, Donald smiled and offered, "I've eaten a lot of fish." Once an avid fisherman, Donald touts no catch-and-release mantra. "If I fish, I do it for food. I don't bother to catch anything I don't plan to eat." As a former angler and Oak Ridge resident, he holds a particular interest in water quality and mercury contamination on the reservation, issues he will likely continue to follow even after the end of his 4-year term with the board in 2016.

The competitive fervor of his youth has not been dampened with age. The bragging marksman stays active. He hits the gym three days a week and plays ping pong at the local civic center with a group of retirees. His quiet confidence about his table skills suggests this is no beginners group but a meeting of minds and show of agility among former scientists and engineers.

When Donald is really passionate about something, it shows. In the midst of discussing gravitational waves over a cup of coffee, he keenly migrates the discussion to his current obsession. Stocks. He pulls a crumpled piece of paper from his pocket and points to the rise and fall of graphs he's created. Statistical analysis for stock trading is an apt hobby for the retired physicist and dosimetry expert. "It's the convergence of all my studies," he explained.

The Meis have made a home in Oak Ridge for the past 26 years. Everyone they have encountered, here and elsewhere, they've "adopted." Friends, colleagues, former employees all bespeak the couple's kindness and compassion. But with four grandkids, ages 2-5, split between North Carolina and Virginia, the Meis find themselves on the road more and more frequently, stirring up longing for family. Lately, their thoughts have turned towards moving farther east sometime in the near future. ORSSAB and Oak Ridge have been honored to have held on to the Meis for this long.



## ORSSAB Members Present Paper at Waste Management Conference

by Belinda Price, ORSSAB Chair



ORSSAB leadership traveled to Phoenix, Arizona, in March for the annual Waste Management Conference, presented by

the non-profit Waste Managment Symposia. Belinda Price, board chair, and Dave Hemelright, secretary, represented Oak Ridge at the international conference this year, which brought together participants from across the globe, providing a forum for discussing a host of topics related to the environmentally responsible management of radioactive materials.

The 2016 conference offered more than 100 sessions total with presenters from government agencies as well as contractors and suppliers from the U.S. and other countries. The five-day affair included oral presentations, posters, and discussion panels covering a wide variety of issues in nuclear waste management. Additionally, exhibits created informal discussion opportunities and showcased demonstrations from over 140 contractors and suppliers.

Each year the conference features a county, this year, Great Britain, and organizes special topics panels and paper session for select sites. The 2016 conference highlighted Oak Ridge as the DOE's featured site, and Belinda and Dave participated actively in these sessions.

Belinda presented a paper, coauthored with Dave, on "The Effectiveness of Advisory Boards: the U.S. DOE EM Site-Specific Experience." Their paper addressed the evolution of ORSSAB, emphasizing changes implemented over the years and ORSSAB's growth as an advisory board that fosters a positive and productive experience for its members while fulfilling its mission to provide significant value to DOE through informed recommendations. Other presenters in the session included David Borak, DOE's Designated Federal Officer for EM Site-Specific Advisory Boards, 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."

Typically, the conference includes several sessions on community involvement, including one specific to DOE Site-Specific Advisory Boards. Having attended several similar sessions



Belinda Price presents at 2016 WM Conference

in the past, Belinda was pleased to note that this year's audience was larger than in recent years.

Dave also represented ORSSAB as the immediate past chair on one of the featured-site panel discussions designated as "Partnering for Success." This panel was one of four during the second day of the conference that highlighted EM's cleanup efforts in Oak Ridge. Sue Cange, Manager for EM's Oak Ridge Office, and Betsy Child of UCOR were the session co-chairs on this panel. In addition to Dave Hemelright, panelists included Jenny Freeman, President of the Energy Technology and Environmental Business Association,

representing the Oak Ridge business community; Ken Rueter, President of UCOR, representing the contractor community; Michael Thompson, Atomic Trades and



Dave Hemelright presents at 2016 WM Conference

Labor Council, representing the trade unions; and Shari Megreblian, Deputy Commissioner of Tennessee Department of Environment and Conservation, representing the regulator community.

It was evident from the panelists' presentations and the discussions that followed that partnering and open communication are key to continued progress on cleanup work in Oak Ridge.

#### Reports Available

DOE's latest Cleanup Progress Report is available online at www.ucor.com/cleanup.html.



# Recent Recommendations

Complete text of all ORSSAB recommendations and DOE responses are available on the board's website at energy.gov/orssab.

#### Recommendation 230

At its January meeting, ORSSAB approved a recommendation to DOE on its Final Proposed Plan for Soils in Zone 1 at East Tennessee Technology Park (DOE/OR/01-2648&D3).

The board recommended approval of DOE's preferred alternative for soil remediation in Zone 1 with the caveat that it may be premature because surface and groundwater remediation has been deferred that may require additional soil remediation in the future.

ETTP is the site of the former K-25 Gaseous Diffusion Plant where five large process buildings enriched uranium for defense purposes and nuclear power plants. The site included scores of support facilities.

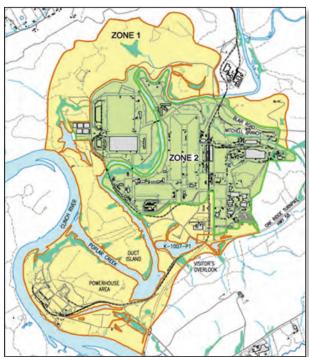
Gaseous diffusion operations ceased in the late 1980s, and DOE began environmental cleanup work to remove residual radioactive and hazardous contamination from the site to make it suitable for private commercial reindustrialization.

ETTP is divided into two environmental cleanup areas: Zones 1 and 2. The perimeter of the site, Zone 1, encompasses the area used historically for light industrial and waste management activities. Zone 2 included the enrichment process buildings and auxiliary facilities.

Much cleanup of Zone 1 was completed under an Interim Record of Decision signed in 2002. However, the goal to make Zone 1 suitable for unrestricted industrial use was not met in all areas because of unforeseen levels of contamination in soils. The proposed plan identifies the remedial action objectives (RAOs) proposed by DOE to complete the cleanup of soils.

The proposed RAOs are to:

- Provide for the use of the majority of Zone 1 as a future industrial site.
- Protect local-level terrestrial wildlife receptor populations from contamination in surface soil.
- Protect underlying groundwater and nearby surface water from contamination in soil.



Map of ETTP Zone 1 and 2

DOE's proposed plan offered four soil remediation alternatives:

- 1. No action.
- 2. Remove small ecological risk areas (within Duct Island East/West and K-901 Drainage Area) and provide additional land use controls/cover for K-770, Contractor's Spoil Area, K-720, and Duct Bank areas.
- 3. Remove K-770 and small ecological risk areas (as previously noted), and provide additional land use controls/cover for Contractor's Spoil Area, K-720, and Duct Bank areas.
- 4. Remove K-770, K-720, and small ecological risk areas (as previously noted), and provide additional land

use controls/cover for the Contractor's Spoil Area and Duct Bank areas.

Alternative 2 is DOE's preferred remedy.

ORSSAB's EM & Stewardship Committee reviewed the proposed plan, participated in a tour of Zone 1, and heard multiple presentations by project representatives regarding proposed soil remediation strategies

and the expected outcome. The committee drafted a recommendation on the plan and sent it the full board for consideration.

Based on the committee's draft, ORSSAB recommended approval of the proposed plan's Alternative 2 with the inclusion of the following assurances:

- Final remediation of Zone 1 soils will meet environmental standards that support and promote economic development.
- Final proposed plan will include a concise description of "unrestricted industrial use" vs. "recreational use" such that a reader clearly understands what activities can/cannot be performed in the designated area.
- Summary of the Oak Ridge Reservation Land Use Control Assurance Plan (DOE
- 1999) will be included in the final proposed plan to benefit readers when considering whether assurances are adequate.
- Development of a land use control implementation plan prior to approval of the final proposed plan will be considered.

DOE has issued a preliminary response to ORSSAB's recommendation, thanking the board for its comments. A more formal and detailed response to the board will be built into the Response to Comments document developed in support of the Final Record of Decision for the ETTP Zone 1 soils.



#### Staff Member Sings Goodbye to ORSSAB

Board members celebrated with Spencer Gross at his final monthly meeting as ORSSAB staff.

After eleven years with the board, Spencer is retiring from its staff. He was recognized for his commitment at the March meeting. "Your many years of service have not gone unnoticed," said Alfreda Cook, ORSSAB Vice Chair. "Your institutional memory is irreplaceable. On behalf of the board, you will be missed, and we wish you all the best."

Spencer wrote his own goodbye for the event, treating friends with a farewell song at the March 9

During his time with the board, Spencer has assisted in countless meetings, set up tours, aided in recommendations, and facilitated the board's many public outreach efforts, as well as a fulfilled a host of other responsibilities. He has also witnessed firsthand much of the progress on cleanup in Oak Ridge during his

"I've learned a lot about what happened in Oak Ridge. It's an



ORSSAB celebrates with Spencer Gross (right center)

amazing story. And it's been interesting to learn the issues involving waste

management and disposition," said Spencer.

Spencer has been busy training his replacement for the last few months. Ashley Huff joined ORSSAB staff in January. "I'm so grateful for the opportunity," said Ashley. "There's been a flurry of activity since the day I started, and there is so much to learn. I can't thank Spencer enough for his help and patience."

Spencer also expressed gratitude to his friends and colleagues at ORSSAB. "Many thanks to all I've worked with in helping me learn about environmental management on the Oak Ridge Reservation." He added, "And a special thanks to ORSSAB administrator Pete Osborne for putting up with me for 11 years."







Y-12 — Y-12 National Security Complex Conservation

TDEC —Tennessee Dept. of Environment and ORSSAB — Oak Ridge Site Specific Advisory Board ORR — Oak Ridge Reservation

ORNL Oak Ridge National Lab

ELLL — East Tennessee Technology Park EPA — Environmental Protection Agency

EM — Environmental Management

DOE — Department of Energy

#### **VERBELIONS**

Wednesday, May 25, 6 p.m. EM & Stewardship Committee Meeting

Wednesday, May 11, 6 p.m.

ORSSAB Board meeting

I Science.gov Way, Oak Ridge, Tenn. All meetings are held at the DOE Information Center,

#### **NECOMING MEETINGS**

Www.energy.gov/OKSSAB Oak Ridge, Tennessee 37831 FO. Box 2001, EM-90



Oak Ridge Site Specific Advisory Board