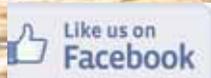


# OAK RIDGE SITE SPECIFIC ADVISORY BOARD

FY 2014 ANNUAL REPORT  
OCTOBER 2013 - SEPTEMBER 2014



# A Message from the Chair



FY 2014 was my first term as chair of the Oak Ridge Site Specific Advisory Board. I thank the members of the board for putting their confidence in me for the year and again for FY 2015. It is an honor and a privilege to represent this important organization.

The board's primary mission is to provide independent advice and recommendations to the Department of Energy on its environmental cleanup program to remedy the Oak Ridge Reservation of hazardous and radioactive wastes leftover from the Manhattan Project and the Cold War era.

In FY 2014 the board sent four recommendations to DOE on issues related to groundwater migration, additional waste disposal capacity, DOE's Oak Ridge geographical information system, and the DOE Oak Ridge Environmental Management budget request to DOE Headquarters.

The board also approved three recommendations developed by the eight site specific advisory boards that make up the national Environmental Management Site Specific Advisory Board.

The details of all of these recommendations are in the Key Issues section of this report.

We received monthly briefings on the various projects underway on the Oak Ridge Reservation, such as the development of a groundwater strategy document for the reservation, the strategic plan for mercury remediation at Y-12 National Security Complex, the status of transuranic waste disposal in light of difficulties that developed in New Mexico at the transuranic waste disposal site, and stewardship tracking tools used by DOE and its contractors. Learn more about these briefings in the Board Meetings section.

This was the first full year of a combined Environmental Management & Stewardship Committee. The transition has worked well, and there has been a realization that the board's overall focus is transitioning from project implementation and oversight to stewardship monitoring activities. There are important project implementation decisions that will be made in the coming year, and the board will have a role in those decisions.

I hope you find this report informative and helpful in your understanding of the board and its place in the decision-making process for DOE in its cleanup and stewardship responsibilities for the Oak Ridge Reservation.

We always welcome input from members of the public on environmental management and stewardship activities on the Oak Ridge Reservation. We provide a public comment period at each meeting for stakeholders to express their views. The board meets the second Wednesday of the month at 6 p.m. at the DOE Information Center, 1 Science.gov Way, Oak Ridge, Tenn. Join us!

*Dave Hemelright*  
David Hemelright, Chair

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## MISSION STATEMENT

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.



*On the cover: DOE reached a major milestone in FY 2014 with the final demolition and debris removal of the K-25 Building at East Tennessee Technology Park.*

# Introduction

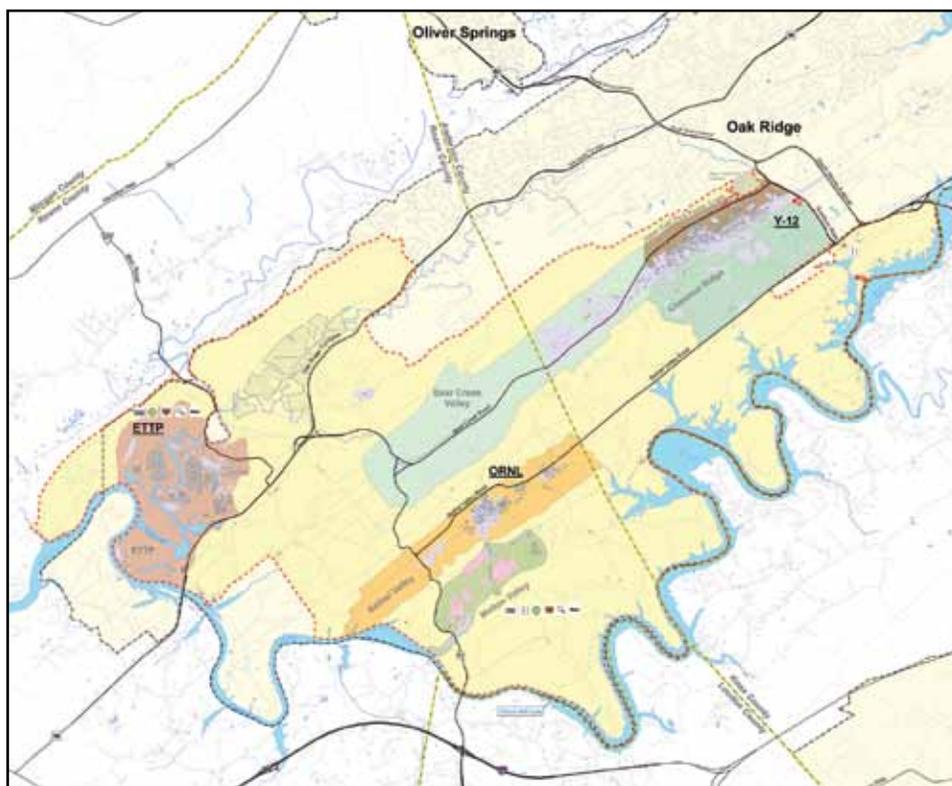
The Oak Ridge Site Specific Advisory Board (ORSSAB) is a federally appointed citizens' panel that provides independent advice and recommendations to the Department of Energy (DOE) on its Oak Ridge Environmental Management (EM) Program. Chartered under the Federal Advisory Committee Act, the board began its work in 1995. ORSSAB is one of eight site specific boards across the nation that comprise the EM SSAB.

The board provides informed recommendations and advice to the DOE EM program regarding environmental restoration and waste management, as well as long-term stewardship, land use, and economic development of contaminated areas.

Recommendations regarding environmental justice, health and safety issues, historical preservation, and other issues may be developed at the request of the DOE Assistant Secretary for EM or the Oak Ridge Manager for EM.

The board is committed to reflecting the concerns of the communities impacted by EM activities on the Oak Ridge Reservation (ORR) and serving as a communications link between the public and relevant government agencies, including local governments.

The board is composed of up to 22 members, chosen to reflect the diversity of gender, race, occupations, views, and interests of persons living near the ORR. Members are



*This map shows the location of the Oak Ridge Reservation in proximity to the populated area of the City of Oak Ridge. The reservation is almost entirely within the city limits of Oak Ridge. It also shows the three main plants of Y-12 National Security Complex, Oak Ridge National Lab, and East Tennessee Technology Park. The colored areas in the yellow portion of the reservation denote watershed cleanup sites.*

appointed by DOE and serve without compensation. Members may serve three two-year terms. At the close of Fiscal Year (FY) 2014, the board consisted of 18 voting members from five counties: Anderson, Blount, Knox, Loudon, and Roane. It also included two non-voting high school students.

Non-voting liaisons include representatives from DOE, the U.S. Environmental Protection Agency Region 4 (EPA), and the Tennessee Department of Environment and Conservation (TDEC). These liaisons advise the board on their agencies' policies and views.

ORSSAB provides a number of avenues for the public to learn about and express views on DOE Oak Ridge EM work. All board and committee meetings are open to the public and are announced in newspaper advertisements and at the DOE Information Center in Oak Ridge (865-241-4780). Board meetings are also advertised in the Federal Register. The first hour of the board meetings is video recorded and broadcast on local cable television stations. It is also available on YouTube at [www.youtube.com/user/ORSSAB](http://www.youtube.com/user/ORSSAB). Copies of the meeting videos are available by calling the ORSSAB support office at 865-241-4583 or 865-241-4584.

The board maintains a web site at [www.energy.gov/orssab](http://www.energy.gov/orssab). Information is also available by calling the ORSSAB support office.

## Board Meetings

The board meets each month to hear presentations by personnel working on

relevant EM topics, listen to and discuss input from concerned citizens, consider recommendations to DOE developed by the various ORSSAB committees, and conduct other business. Each August, board members have an annual meeting to evaluate the board's work for the year and plan activities for the next fiscal year.

The board conducts its deliberations under ORSSAB bylaws and Robert's Rules of Order and strives to consider all relevant positions in reaching decisions.

## Committees

The accompanying diagram shows the board's FY 2014 structure. General board business is handled at the monthly Executive Committee meeting. This committee, which is composed of the elected officers of the board and the standing committee chairs, holds general administrative authority to set board agendas, coordinate the work of committees, and transact business as necessary.



ORSSAB committees usually meet monthly, and all meetings are open to the public.

Each ORSSAB committee creates its own work plan to guide its activities during the year, and these work plans are updated continually as the board year progresses. Information about ORSSAB committees can be found in the "Committees" section of this report.

## FY 2014 Board Officers

ORSSAB officers for the year were Dave Hemelright, Chair; Bruce Hicks, Vice Chair; and Lisa Hagy, Secretary.

# The Year's Top News

## October 2013

Fiscal year 2014 began with uncertainty as Congress could not agree on an operating budget forcing almost a complete shutdown of the federal government.

As a result ORSSAB and its committees did not meet in October.

UCOR, DOE's prime cleanup contractor, continued demolition of the K-25 Building at East Tennessee Technology Park (ETTP), although the company prepared its employees for the possibility of work stoppage if the budget stalemate was not resolved.

## November 2013

By November the budget crisis had been resolved and the federal government was back in business.

Government leaders in Nevada indicated they would oppose DOE's plans to ship and dispose about 400 canisters of uranium-233 at the Nevada National Security Site. The canisters are stored in Building 3019 at Oak Ridge National Lab (ORNL).

UCOR completed stabilization of the 3026 Hot Cells at ORNL, which allowed DOE to downgrade the hot cells from a 'Hazard Category 3 nuclear facility' to a 'radiological facility.'

## December 2013

On December 19, the last remaining section of the K-25 Building came crashing down, five years, almost to the day, after demolition began on December 16, 2008.

A number of dignitaries, including DOE officials from Washington, D.C., and

Cong. Chuck Fleischman, were on hand to witness the final knockdown.

## January 2014

As a result of the continued debate with Nevada leaders, DOE unloaded some uranium-233 from its shipping containers at ORNL that were set to go for disposal at the Nevada National Security Site.

Transportation, Operations, and Professional Services Inc., a subcontractor to UCOR, was investigated by the FBI, the Internal Revenue Service, and the DOE Office of Inspector General. Details of the investigation were not revealed.

The company hauls waste for UCOR from ETTP along the haul road to the Environmental Management Waste Management Facility (EMWMF) near Y-12. The company also maintains the haul road.

## February 2014

Early in the month, a truck, deep underground at the Waste Isolation Pilot Plant (WIPP)



*DOE reached a major milestone in December 2013 with the demolition of the last section of the K-25 Building at ETTP.*

in New Mexico, caught fire forcing the evacuation of workers.

A few days later radioactivity was detected above ground that apparently came from the mine.

The incidents forced the closure of WIPP and shipments of transuranic (TRU) waste for disposal were suspended. The Transuranic Waste Processing Center (TWPC) in Oak Ridge was preparing to resume shipments of waste to WIPP at the time of the incidents.

DOE Oak Ridge EM learned that its FY 2014 budget for cleanup was \$430 million, \$17 million more than was received in FY 2013. The appropriation included \$4.6 million to begin design work on a mercury decontamination plant at Y-12.

However, the President submitted his FY 2015 budget request to Congress, which allocated only \$385 million for cleanup work.

### March 2014

The last truckload of debris from the K-25 Building demolition site was shipped from ETTP.

Wastes hauled from the site over the years included 6,000 compressors, 3,000 converters, 187,000 cubic yards of steel, 3,800 miles of electrical conductors, and 44,445 cubic yards of asbestos insulation.

Tennessee Governor Bill Haslam visited Oak Ridge and was briefed by local and state officials on DOE's cleanup operations and reindustrialization efforts at ETTP. The

governor said the site could be uniquely attractive for economic development. He said a key recruiting tool is the proximity of ORNL and the technologies being developed there.

DOE announced that it was going forward with plans to demolish the K-31 Building at ETTP instead of waiting until the K-27 Building was fully deactivated and ready for demolition. Moving forward with K-31 would prevent having workers and equipment idled while K-27 is prepared for demolition.

While excavating to build a road at Y-12, workers exposed demolition debris contaminated with depleted uranium. DOE said contamination levels did not pose

health risks and options were being evaluated to dispose the material.

### April 2014

For the first time since a fire and radiation leak in February closed WIPP, workers re-entered the underground facility. The teams initially did not detect any airborne contamination. Workers installed a continuous air monitor, and they established an underground base of operations for future entries into the mine.

DOE reported that radioactive technetium associated with debris from the K-25 demolition project infiltrated a sewer line in an Oak Ridge wastewater treatment plant.

The radioactivity was discovered in February, and steps were taken to block the sewer line at ETTP and slow the off-site migration of technetium. Based on sampling data there did not appear to be any health concerns. State and federal officials said the amount of



*Drums of TRU waste are stored at the TWPC awaiting shipment to WIPP in New Mexico.*

technetium-99 leaving ETTP did not violate any environmental limits.

Since the sludge at the sewage-treatment plant was considered radioactive waste, DOE took ownership of it, began retrieving the material, and sent it for disposal at a commercial facility in Washington state.

## May 2014

Mark Whitney, DOE's Oak Ridge cleanup manager since 2012, returned to DOE headquarters in Washington, D.C., as the acting assistant secretary for EM

Workers began removing transite paneling from the outside of the K-31 Building at ETTP in preparation for its demolition.

The former gaseous diffusion building enriched uranium for defense and commercial purposes before it was permanently shut down in 1987.

The American Nuclear Society honored the five-year, billion-dollar demolition of the K-25 Building at ETTP. The job was selected for the Project Excellence Award from the society's Decommissioning and Environmental Services Division.

For the 12<sup>th</sup> time since 1995, DOE transferred ownership of about 25 acres of government property to the Community Reuse Organization of East Tennessee (CROET) allowing for more private industrial development at ETTP.

CROET was established about 20 years ago to coordinate the reuse of surplus or "under

utilized" federal land and facilities on the ORR.

UCOR declared a "potential inadequacy" in the safety analysis for radioactive wastes stored in Melton Valley. New information indicated there was a threat of detonation for some drums awaiting processing.

DOE said a few drums stored in the Melton Valley Solid Waste Storage Facilities have

the potential to generate hydrogen and oxygen gases at rates higher than anticipated. The containers were determined to be at slight risk for a detonation hazard. After identifying the potential safety hazard, DOE said it determined some additional containers stored at the TWPC required further analysis.

DOE said while the initial data were analyzed and confirmed, movement and handling of the containers was restricted and they remain in safe storage. Data collected indicated about half of the containers do not pose a detonation risk.



*Workers remove paneling from the K-31 Building at ETTP in preparation for demolition in FY 2015.*

The wastes eventually will be processed and repackaged at the TWPC.

## June 2014

Ken Rueter became the new president and project manager of URS-CH2M Oak Ridge (UCOR), DOE's cleanup manager in Oak



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Ridge. He succeeded Leo Sain, who took a corporate position with URS, a parent company of UCOR.

## July 2014

A glove used to process nuclear waste at Los Alamos National Laboratory and metallic residue from that process became the focus of a new theory that caused a radiation leak at WIPP.

Investigators examined a change from clay absorbent to an organic variety added to the drums. Later, questions arose about the type of acid neutralizer added to the mix. A hearing in July was the first mention of the theory that a glove and trace metals left behind during the waste processing could have triggered the chemical reaction that caused the radiation release.

The lead investigator of the incident said experiments indicated that the organic absorbent and nitrate salts had not been proven to be capable of causing a chemical reaction like the one at WIPP. The investigator said the specific contents of the drum suspected of causing the leak were unique, particularly the metal-bearing glove that was left in the drum.

DOE and contractor personnel celebrated the completion of the K-25 demolition with an ice-cream social. Several hundred people attended the event near the entrance of ETPP and enjoyed all the ice cream they could eat.

## August 2014

Chris Thompson, who had previously served as director of external affairs for TDEC's

Knoxville field office, was appointed deputy director for the Division of Remediation in the DOE Oversight Office in Oak Ridge. She assumed the responsibilities of John Owsley, who continues to serve as a senior advisor in the DOE Oversight Office.

## September 2014

DOE announced that it will provide funding for additional groundwater monitoring in the Jones Road area across the Clinch River from the Melton Valley waste disposal area. The studies will evaluate the potential for off-site movement of contamination from the ORR.

Groundwater samples taken in recent years in the Jones Road area have shown traces of radioactive elements and various chemicals. The samples are similar to wastes disposed in Melton Valley, but there has been no conclusive evidence that the contaminants originated on the ORR side of the river.



*Workers were treated to an ice cream social in July to celebrate the completion of the K-25 Building demolition project.*

DOE discovered a leak in the reactor pool at the Oak Ridge Research Reactor at ORNL. UCOR said the leak was progressing at about 100 drops per minute, but it was being collected in a basement and posed no threat to safety.

Initial tests indicated the leak was not connected to the reactor pool's aluminum liner, but a cause had not been determined.

DOE released the recovery plan to resume operations at WIPP. Mark Whitney, Acting Assistant Secretary for EM, said the agency was confident that the facility would resume operations in the first quarter of 2016.

Key elements of the plan include safety, regulatory compliance, decontamination, and improving the ventilation system.

# Key Issues

In FY 2014, the board sent four locally generated recommendations to DOE on topics related to groundwater migration, additional waste disposal capacity, the DOE geographical information system, and the DOE Oak Ridge EM budget request. The board also signed off on three recommendations developed by the eight site specific boards that make up the EM SSAB.

Full text of the recommendations and responses is available on the ORSSAB website at <http://energy.gov/orem/listings/orssab-recommendations-responses>.

## Recommendation on Additional Off-site Groundwater Migration Studies

A series of groundwater strategy workshops was held during 2013 to build consensus around a path forward for managing groundwater challenges on the ORR.

The workshops included representatives of DOE, EPA, TDEC, and an independent observer from the U.S. Geological Survey, who acted as a technical advisor for ORSSAB.

In September 2013, a groundwater strategy document for the ORR was issued. After reviewing the report and receiving a briefing from the independent advisor, ORSSAB recommended that DOE conduct additional groundwater studies to address potential off-site migration of chemical species and radioisotopes.

DOE responded that it has proceeded with the off-site groundwater studies and was working with EPA and TDEC to ensure project completion and success. It said it has planned budgets for three years of the project studies and for additional studies beyond that.

DOE said groundwater plumes had been ranked through a series

of workshops and each plume was analyzed for potential migration, concentrations, contaminants of concern, and potential health risks to humans and the environment.

## Recommendations on Additional Waste Disposal Capacity on the ORR

In formal presentations made to ORSSAB in January and February, DOE identified the need for additional contaminated waste disposal capacity on the ORR. Disposal capacity in the existing EMWMF is predicted to be exhausted by 2023.

Development of a new disposal area, named the Environmental Management Disposal Facility (EMDF), has been proposed to EPA and TDEC, and a remedial investigation/feasibility study has been compiled to develop,

screen, and evaluate alternatives for waste disposal, including off-site disposal options.

Based on information provided by DOE that identified the need for additional waste disposal, ORSSAB made a number of recommendations to DOE. Following are the specific recommendations and DOE's responses:



*In FY 2014 ORSSAB recommended that DOE conduct additional groundwater studies to learn more about potential off-site migration of radioisotopes from the Oak Ridge Reservation.*

- Continue planning for additional on-site disposal capacity for low-level radioactive and chemically hazardous contaminated waste, and continue ongoing efforts to minimize the need for additional on-site capacity.

DOE said it was examining the final cover design of the EMWMF to allow for extended capacity. The waste acceptance criteria for other so-called ‘sanitary landfills’ on Chestnut Ridge are being evaluated for possible modifications to allow a wider variety of waste.

DOE also said it has practices in place to minimize disposal volumes. The agency uses a hierarchy for dispositioning waste that includes reusing or recycling where possible, followed by the use of the sanitary landfills, the EMWMF, and off-site disposal facilities.

- Ensure that the proposed new disposal facility will have sufficient capacity to accept future generated waste from DOE activities through cleanup of the ORR.

DOE said planning for the EMDF includes projected future remediation waste, plus an additional 25 percent contingency for any uncertainties in volume projections.

- Ensure the proposed disposal facility is engineered to operate safely and block migration of contaminants into adjacent groundwater, soil, and air.

DOE said the facility design will undergo modeling and third party review to demonstrate regulatory compliance and provide the necessary protection of the environment and human health.

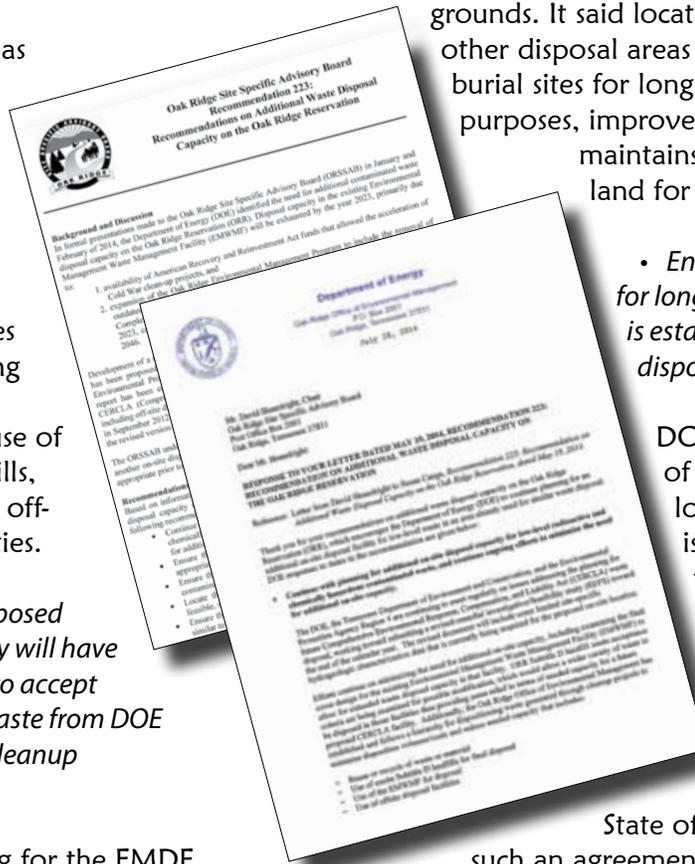
- Locate the proposed facility in proximity to existing waste burial grounds, if technically feasible, such that contaminated areas are consolidated on the ORR.

DOE responded that the proposed site is near EMWMF and other waste burial grounds. It said locating the EMDF near other disposal areas consolidates the burial sites for long-term stewardship purposes, improves cost benefits, and maintains current greenfield land for unrestricted use.

- Ensure that a trust fund for long-term stewardship is established for any new disposal facility.

DOE said the expense of a trust fund for long-term stewardship is incorporated in the feasibility study for the facility’s life-cycle. The continuation of the trust fund concept is contingent on the

State of Tennessee accepting such an agreement, but DOE will be responsible for the long-term stewardship of EMDF either through a trust fund or independently by DOE.



### Recommendation on the FY 2016 DOE Oak Ridge EM Budget Request

Each year DOE EM develops its budget request for the fiscal year two years beyond the current fiscal year. It uses budget requests from

the various DOE field offices in developing the EM Program budget request to the President.

In March 2014, DOE briefed ORSSAB on the current budget picture and described near-term (2014-2016), mid-term (2017-2026), and long-term (2027-2043) priorities for cleanup of the ORR. In March 2014, the ORSSAB EM & Stewardship and Budget & Process committees met with DOE representatives for a more in-depth discussion and explanation of the reasoning behind setting the priorities.

In its recommendation ORSSAB agreed with DOE's near-term, mid-term, and long-term priorities and strongly encouraged DOE EM to request funding sufficient to adequately address those projects. In particular, the board recommended aggressive implementation of projects which will reduce the "base" costs of the Oak Ridge cleanup program and allow accelerated investment in remaining cleanup work.

DOE replied that it had sent ORSSAB's recommendation to DOE Headquarters along with its budget request for FY 2016.

### Recommendation on DOE Oak Ridge GIS Fact Sheets

DOE Oak Ridge operates a geographical information system (GIS) that provides information about specific sites, contamination, and cleanup status.

Each decision area has a fact sheet that provides an answer to the question 'is it safe?' followed by short summaries of the site history, Record of Decision, remedial measures, and current status. The fact sheets also provide links to relevant documents. The board noted that not all fact sheets describe future decisions and actions. To

more fully inform the public, the board recommended that all fact sheets identify future actions expected or planned.

DOE agreed with the recommendation and said fact sheets currently available would be updated to capture the current and anticipated cleanup actions.

### EM SSAB Chairs Recommendations

#### Recommendation Regarding the Creation of a Graphic Representation of Waste Disposal Paths

The chairs of the combined SSABs that make up the national EM SSAB recommended that DOE develop and make available to the public graphic representations of the current and planned EM legacy waste disposition paths.



ORSSAB recommended additional information to be provided in all fact sheets available on the DOE GIS.

They said the maps would be very beneficial to the EM SSAB and would increase the public's ability to understand the waste types, quantities, and plans for disposal.

DOE said, for the most part, tools already exist for tracking much of the waste. The Waste Information Management System managed by Florida International University, identifies waste forecasts, volumes, material classes, and disposition pathways. The system also enables waste managers to identify potential choke points and barriers to final disposition. The system

generates waste disposition maps and pathway geographic information system maps.

For TRU waste, there is only one disposal facility available, WIPP in New Mexico. Sites that have high-level waste use on-site interim storage facilities until a national repository for high-level waste is determined.

### **Recommendation Regarding Maintaining Funding for Cleanup**

The EM SSAB chairs noted that in recent years the federal government has made numerous budget cuts that have affected the pace of environmental cleanup at DOE sites and has put them at risk of substantial fines by regulatory agencies for missed milestones.

The chairs said operating under these situations does not reduce the risk to human health and the environment and condones the possibility of using cleanup funds to pay fines.

The chairs recommended that DOE make every effort possible to ensure that EM funding for all sites across the DOE Complex be maintained as a top priority as it relates to across-the-board cut-backs in federal funding. They said federal budget cuts should not include funding for remediation or cleanup efforts.

DOE's response was that EM continues to be aware of the implications of funding constraints from across-the-board budget cuts, continuing resolutions, and sequestration actions. The agency said it

remained committed to working with the EM SSAB, regulators, and stakeholders to "rise above these challenges and make every possible effort to secure appropriate funding in the future to support cleanup efforts across the complex."

### **Recommendation Regarding Recycling of Metals and Materials**

The EM SSAB has long advocated recycling and reuse of excess metals and materials by DOE as an environmentally responsible method for DOE to deal with waste, as well as preserve national assets.

The EM SSAB chairs recommended that DOE establish a recycling program for radiologically contaminated metals and equipment.

The chairs also made some recommendations on specific recycling efforts of contaminated materials.

DOE replied that it was considering the recommendation to establish a recycling program for radiologically contaminated metals, and it would continue to evaluate the merits and feasibility of studying promising decontamination technologies.

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*ORSSAB members attended the Spring 2014 EM SSAB Chairs' Meeting in Pasco, Wash., where three national recommendations were written for consideration of approval by the eight local SSABs. Attending were Chair Dave Hemelright, seated left, Vice Chair Bruce Hicks, seated right, and standing left to right, Dave Adler, ORSSAB's Alternate Deputy Designated Federal Officer, Corkie Staley, Alfreda Cook, and Bob Hatcher.*



# Board Meetings

ORSSAB meetings are held the second Wednesday of the month at 6 p.m., at the DOE Information Center, Office of Science and Technical Information, 1 Science.gov Way, Oak Ridge, Tenn. Each meeting features a presentation like the ones described below. Board meetings also include regular business items, such as approval of recommendations and status reports from DOE, EPA, TDEC, and the various ORSSAB committees. The public is always welcome to attend. Meetings are listed on the ORSSAB website at [www.energy.gov/orssab](http://www.energy.gov/orssab).

## October

Because of the government shutdown early in FY 2014 the board did not meet. See The Year's Top News.

## November

The first meeting presentation of the fiscal year was a briefing on a groundwater strategy document that had been developed by representatives of DOE, EPA, and TDEC.

The briefing was provided by Dan Goode, a research hydrologist with the U.S. Geological Survey, who acted as a liaison for the board during the workshop sessions that studied groundwater issues on the ORR.

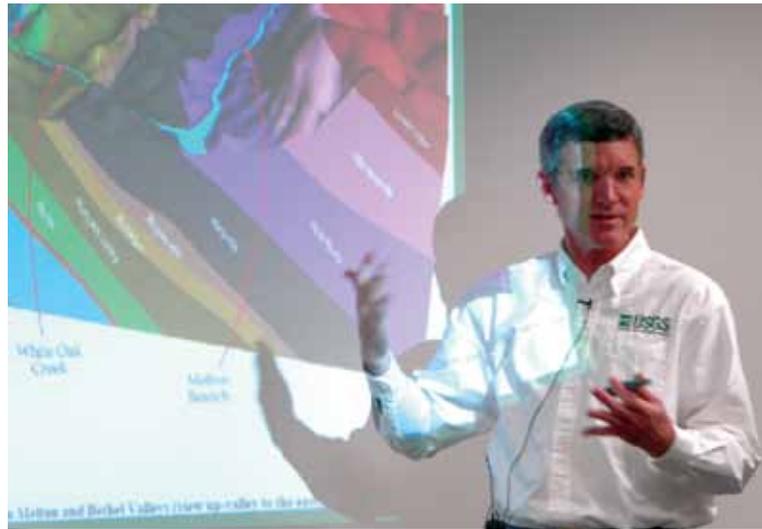
He said the workshop participants agreed on two key issues.

- additional off-site monitoring was needed to assess potential risk of contaminated groundwater moving off site, and
- an ongoing ORR groundwater program is needed to systematically prioritize and

investigate groundwater plumes and data gaps.

The Groundwater Strategy document that was developed offered a number of recommendations for DOE to consider:

- additional funding for an ORR groundwater program;
- an off-site groundwater quality assessment program in the 2014-2016 timeframe; and
- a strategy to address plume rankings.



*Dan Goode, U.S. Geological Survey, was ORSSAB's liaison to a series of workshops on ORR groundwater issues.*

As liaison for the board, Dr. Goode made a number of suggestions for recommendations that the board could make regarding the strategy document.

The board took his suggestions and crafted a recommendation on

groundwater (see Key Issues, Recommendation on Additional Off-site Groundwater Migration Studies).

## December

The board did not meet in December.

## January

The January presentation was on a proposed second on-site waste disposal facility for the ORR.

Laura Wilkerson, Federal Project Director for Y-12 Projects, said the current on-site facility, the EMWMF, will be filled to capacity by 2023 if the cleanup of the ORR continues at its current pace.

But there is more cleanup work to be done than EMWMF can hold, so a second disposal facility is being considered to handle the additional waste.

Ms. Wilkerson said shipping waste off-site has disadvantages, primarily high cost and uncertainties at receiving sites. She said a location adjacent to EMWMF is the preferred site for another waste disposal facility. The proposed location would be similar in size and design to EMWMF.

The board later made a recommendation on a second waste site (see Key Issues, Recommendations on Additional Waste Disposal Capacity on the Oak Ridge Reservation).

## February

Inclement weather caused the cancellation of the February meeting.

## March

Each year DOE Oak Ridge EM asks ORSSAB to provide input on priorities for requesting budget allocations.

Tammy Blaine, DOE, described the federal budgeting process and explained near-term,

mid-term, and long-term priorities for ORR cleanup.

She reminded the board that budget requests are submitted for two years into the future, so any input the board provided would accompany the FY 2016 Oak Ridge EM budget request to DOE Headquarters.

In May the board approved a recommendation on the FY 2016 Oak Ridge EM budget request (See Key Issues, Recommendation on the FY 2016 DOE Oak Ridge EM Budget Request).



*Tammy Blaine, DOE, described the federal budget process at the March meeting.*

## April

Laura Wilkerson returned in April to brief the board on the strategic plan for mercury remediation at Y-12 National Security Complex.

She said the primary issue at Y-12 is mercury in the waters of Upper East Fork Poplar Creek, which begins within the confines of the plant. The objectives of cleanup are to reduce mercury in the water and stabilize and eliminate mercury in soils.

Reduction of mercury in water will be accomplished by building a water treatment plant near the headwaters of the creek. The plant is scheduled to begin operating in 2020.

Cleanup of soils will require demolition of several process buildings where mercury was handled. Ms. Wilkerson said demolition of the buildings is scheduled to begin in about 2021, depending on available budget.



*Laura Wilkerson, DOE, made three presentations to the board in FY 2014.*

## May

Ms. Wilkerson was back in May to update the board on the status of the TWPC, that prepares contact-handled (CH) and remote-handled (RH) TRU waste for shipment and disposal at WIPP in New Mexico.

Even though operations at WIPP had been suspended because of two incidents (see the Year's Top News), Ms. Wilkerson said the TWPC continued to process and store CH waste at the center until operations at WIPP resume.

Since 2004 when the center began operations, it has processed and disposed about 1,610 cubic meters of supernate (liquid above a sediment or precipitate), about 1,425 cubic meters of the CH inventory, and about 364 cubic meters of the RH inventory, representing 95 and 65 percent of the total ORR TRU waste inventory, respectively.

## June

Steve Cooke, DOE, talked to the board about the status of property and infrastructure transfer at ETTP. As buildings are demolished and land is cleared DOE is transferring ownership for private industrial development.



*Steve Cooke, DOE, briefed the board in June about property transfers and infrastructure at ETTP.*

Mr. Cooke said the vision for ETTP incorporates more than just industrial development. Conservation and historic preservation are part of the vision for the site, as well. DOE has set aside about 3,000 acres north of ETTP as part of the Black Oak Ridge Conservation Easement.

At the time of his presentation 230 acres and 13 buildings had been transferred from DOE for private use. A documentation and review process had been initiated for transfer of 875 additional acres.

DOE has also transferred 1.3 miles of road, 11 miles of railway, and water, sewer, and power systems.



View the first hour of board meetings on YouTube at:  
[www.youtube.com/user/ORSSAB](http://www.youtube.com/user/ORSSAB)

## July

The board did not meet in July.

## August

At its annual planning meeting in August, ORSSAB learned that a number of important decisions will be made in FY 2015, and DOE will welcome input on them. Following are the specifics of those issues.

### Mercury Treatment Plant

One of DOE's near-term priorities is the construction of a mercury water treatment plant at Y-12 National Security Complex. Mercury lost during processes years ago is under some buildings, and it makes its way to East Fork Poplar Creek, which runs through populated areas of Oak Ridge. The amount of mercury leaving Y-12 in the creek is above state guidelines and DOE must reduce it to acceptable levels.

A proposed plan for the project has been sent to EPA and TDEC for review. When their comments are received a second draft will be provided to ORSSAB and the public to review and offer comments or recommendations.

### Second On-site Waste Disposal Facility

Another decision to be made is whether to build a second on-site disposal facility on the ORR.

The existing facility, the EMWMF in Bear Creek Valley, has been expanded to its final capacity of 2.2 million cubic yards. But that will not be enough to receive all the waste expected to be generated over the years to complete cleanup of the ORR.

There are two central issues to consider: should another disposal facility be built and if so where should it go? DOE would like ORSSAB input on the issue.

### Soils Remediation at ETTP

A decision on soils remediation, land use controls, water use, and development in Zone 1 of ETTP needs to be made in FY 2015.

ETTP is divided into two zones. Zone 1 is an area of about 1,400 acres that surrounds the main industrial complex of ETTP. DOE expects to issue a proposed plan for cleanup of Zone 1 in FY 2015, and ORSSAB can offer comments or recommendations on the plan.

### Remediation of Trench 13

DOE would like ORSSAB's help with selection of a remediation strategy for Trench 13 in Melton Valley.



*Susan Cange, the DOE Oak Ridge Acting Manager for EM, enumerated the topics DOE would like for ORSSAB to consider in FY 2015 at the board's August annual meeting.*

When remediation of Melton Valley was nearing completion in the mid-2000s, workers excavating Trench 13 encountered some glass containers holding pyrophoric materials. When the excavators broke one of the vessels there was a brief flare up. Work was suspended immediately, and soon after Trench 13 was stabilized and covered.

DOE would like to receive a recommendation from the board on the future management of the material.

### Groundwater

EPA and TDEC requested that the board should continue to consider groundwater issues. TDEC says there is some indication that contaminants related to the ORR may be in groundwater on the west side of the Clinch River beyond the boundary of the ORR. TDEC hopes the board will engage in efforts to assess the situation.

EPA would like for DOE to evaluate other groundwater plumes on the ORR for remediation.

## TRU Waste Disposition

Another near-term cleanup goal for DOE is preparation of TRU sludge processing. It is working with TDEC to establish a path forward for disposition of the TRU sludge stored in tanks in Melton Valley. The waste would need to be processed in the TWPC before final disposition.

DOE and TDEC said input from ORSSAB on these waste streams would be useful in increasing public awareness of TRU waste disposition.

## DOE EM Budget Request

Each year DOE Oak Ridge requests input from the board on its budget request to DOE Headquarters and related project prioritization. DOE said while there is general consensus among DOE, EPA, and TDEC on cleanup priorities, it's helpful to get input from ORSSAB.

## September

Pat Halsey, DOE, and Sally Brown, Restoration Services, Inc., provided presentations on the Oak Ridge Stewardship Program and the tools to track stewardship activities.

Those tools include the DOE GIS, the Oak Ridge Environmental Information System, the Land Use Manager, the annual Remediation Effectiveness Report, and the Five-Year Review.

Ms. Halsey demonstrated how to use the publicly available GIS. Ms. Brown showed how field inspectors use the computer-based Land Use Manager, which tracks, monitors, and verifies stewardship controls.

The board elected officers for FY 2015 at the meeting. They are: Dave Hemelright, Chair; Jan Lyons, Vice Chair; and Lisa Hagy, Secretary.

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## ORSSAB Migrates to New Website in FY 2014

The screenshot shows the Energy.gov website for the Oak Ridge Office of Environmental Management. The page is titled "OAK RIDGE SITE SPECIFIC ADVISORY BOARD". It features a navigation menu with "SERVICES", "CLEANUP SITES", "MISSION", "ABOUT US", and "OFFICES". A search bar is located in the top right corner. The main content area includes a list of services (Site Cleanup, Waste Management, Program Management, Community Engagement), a group photo of the 2014 ORSSAB board members, and a section titled "HOW CAN I PARTICIPATE?" which provides contact information and meeting details. There are also social media links for Facebook and YouTube, and a "STAY CONNECTED" section. The "ADDITIONAL INFORMATION" section includes links for "ORSSAB News", "ORSSAB Meetings", and "Committees".

*In FY 2014 ORSSAB migrated to a new website address with a new look. The new address is: [www.energy.gov/orssab](http://www.energy.gov/orssab).*

# Committees

## Executive

General board business is handled by the Executive Committee, which is composed of the elected officers of the board and the standing committee chairs. The committee holds authority to set board agendas, coordinate the work of the committees, and transact business as necessary between regular board meetings.

## Budget & Process

This committee serves as the board's forum for initial discussion on issues involving the ORSSAB bylaws and operating procedures, annual meeting planning, and preparation of the board's annual work plan.

It is also responsible for helping draft a recommendation to DOE Oak Ridge EM on its annual budget request to DOE Headquarters.

Each year ORSSAB is asked to provide input to DOE Oak Ridge EM regarding the development of its annual budget request to headquarters for operations two years beyond the current fiscal year. The Budget & Process Committee works with the EM & Stewardship Committee to draft a recommendation for the full board to consider on EM's budget request.

## Environmental Management & Stewardship

This committee is responsible for monitoring the major cleanup activities on the ORR and any associated stewardship requirements for areas of the reservation that have waste remediated in place.

In FY 2014 the committee followed a number of issues.

### Groundwater

Beginning in 2013, DOE, EPA, and TDEC participated in a series of workshops on

issues associated with groundwater on the ORR. Dr. Dan Goode, of the U.S. Geological Survey, acted as a liaison for the board at the workshops.

Dr. Goode reported on the workshops and made a number of suggestions that the board could recommend to DOE.

The committee took some of his suggestions and drafted a recommendation that was passed by the board (see Key Issues, Recommendation on Additional Off-site Groundwater Migration Studies).

At the June meeting, Dr. Goode said he had been contracted to act again as a liaison to the board on a project to develop a groundwater flow model for the ORR. He said DOE, EPA, TDEC, and associated contractors will develop the model. Dr. Goode said the project could take as long as two years.

### Siting of a second waste disposal facility

Most of the waste from cleanup operations on the ORR goes to the waste disposal facility in Bear Creek Valley, the EMW/MF.

Because more work has been added to the DOE Oak Ridge EM program scope, the current facility is forecast to be full by 2023, so a second disposal facility is needed.

The committee received a briefing on a remedial investigation/feasibility study (RIFS) that considered alternatives for handling the additional waste. The RIFS offered three alternatives:

- no action, in which case waste disposal would be determined on an individual project basis;
- on-site disposal;
- off-site disposal.

The RIFS determined that the no action alternative was impractical and off-site disposal was too expensive. The preferred alternative

was on-site disposal, and 13 potential locations were evaluated.

The preferred site is 60-70 acres just east of EMWMF. It would be known as the Environmental Management Disposal Facility. EPA and TDEC will offer comments on the study then a proposed plan suggesting a site will be submitted for public comment. A final Record of Decision documenting the location is scheduled for 2015.

The EM & Stewardship Committee drafted a recommendation, which the full board later approved, that DOE continue with planning for a second disposal facility (see Key Issues, Recommendations on Additional Waste Disposal Capacity on the Oak Ridge Reservation).

### DOE EM Budget Request

In March the EM & Stewardship Committee and the Budget & Process Committee met jointly to discuss drafting a recommendation on the Oak Ridge DOE EM annual budget request to DOE Headquarters.

Dave Adler, DOE's liaison to the committees, provided a timeline of cleanup activities and estimated amounts of money needed to complete each project. He said ORSSAB's input on cleanup priorities would be welcome.

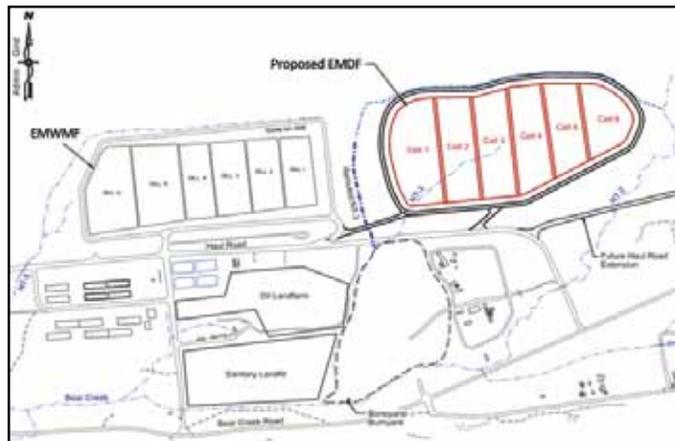
The committee drafted a recommendation, which was approved by the board and forwarded to DOE Headquarters along with the EM budget request and EPA and TDEC input on cleanup priorities (see Key Issues,

Recommendation on the FY 2016 DOE Oak Ridge EM Budget Request).

### Remediation Effectiveness Report

Each year DOE produces the Remediation Effectiveness Report (RER), which assesses performance of completed and ongoing actions done under the Comprehensive Environmental Response, Compensation, and Liability Act. The report evaluates effectiveness and compliance with long-term stewardship

requirements for each action. The committee received a briefing on the RER at its April meeting. For the most part, remediation actions across the ORR are performing well, although mercury concentration goals in Upper East Fork Poplar Creek near Y-12, and uranium goals in Bear Creek Valley have not been met.



*A location, outlined in red, just east of the EMWMF is the preferred site for an additional waste disposal facility for the ORR. ORSSAB's EM & Stewardship Committee drafted a recommendation that DOE should continue planning for a second on-site facility.*

### DOE Geographical Information System

Pat Halsey, DOE, demonstrated the DOE Oak Ridge GIS. The GIS, which is available to the public at <https://emgis.oro.doe.gov/> shows a map of the Oak Ridge area. Layers can be turned on or off to show boundaries of the ORR, clean areas, remediated areas, streams, roads, groundwater flow, and other features.

By clicking areas of the image, any documents related to the area will appear. Some of the documents are fact sheets that indicate accessibility and safety to the public.

Committee members noted that not all fact sheets described planned future remediation actions. The committee drafted a recommendation to include that information on all fact sheets (see Key Issues,

Recommendation on DOE Oak Ridge GIS Fact Sheets).

## Public Outreach

The goals of the Public Outreach Committee are to:

- provide meaningful opportunities for dialogue between the surrounding communities and EM;
- ensure ongoing community access to information and dialogue that improves the quality of EM's decision-making; and
- serve as the vehicle through which the public should communicate with EM.

To do this, the committee invites public participation in board activities and reaches out to the community in a variety of ways. News releases, publications, and many of the other materials listed below can be accessed on the board's website at [www.energy.gov/orssab](http://www.energy.gov/orssab).

Newspaper ads about the board's monthly meetings are placed in the *Oak Ridger*, the *Knoxville News Sentinel*, the *Lenoir City News Herald*, and the *Roane County News*, and notices are placed in the *Federal Register*.

Videos of the presentation portion of the monthly board meetings are posted on YouTube and broadcast on local public access cable stations in Oak Ridge, Knoxville, and Lenoir City.

The ORSSAB annual report is distributed to elected officials, government agencies, local media, organizations, and interested individuals to promote awareness of the board's mission.

The board's *Advocate* newsletter is distributed quarterly to inform area citizens about recent board activities and EM cleanup issues. It is available in 25 libraries in the nine-county region and is available online at [www.energy.gov/orssab](http://www.energy.gov/orssab).



*ORSSAB's Public Outreach Committee maintains an exhibit at the American Museum of Science and Energy in Oak Ridge.*

Guest editorials and news releases are published regularly on a variety of topics.

The board's Facebook page offers updated information on board activities.

Presentations are made by board members to local civic, educational, and government organizations to

inform the public about the board and DOE cleanup activities.

Members represent the board at special events such as Oak Ridge Earth Day where information is distributed to interested individuals.

The board sponsors public meetings on key topics, such as historic preservation and the Oak Ridge EM budget request.

A permanent exhibit is maintained at the American Museum of Science & Energy in Oak Ridge, using touch-screen kiosks, posters, and displays to tell the Oak Ridge cleanup story.

# Members & Liaisons

*The following are members and student representatives who served during all or part of FY 2014.*



**Jimmy Bell** worked as a chemist at ORNL from 1963 to 1995. Most recently he provided consulting services to Egan, Fitzpatrick, Malsch & Lawrence, PLLC, a legal firm involved in environ-

mental issues. He received his Bachelor of Science (B.S.) degree in chemistry from Berry College and his doctorate in physical chemistry from the University of Mississippi. Jimmy lives in Kingston.



**Noel Berry** is a resident of Knoxville and is a retired project management professional, with extensive experience in computers and related quality assurance issues. He received his Associate's

Degree (A.S.) in electrical engineering technology from Chattanooga State Technical Institute in Chattanooga, and his B.S. in computer science from St. Edwards University in Austin, Texas.



**Aditya Chourey** is a student representative for FY 2014-15 from Oak Ridge High School. He is a member of the International Relations Club/Model United Nations, and he leads the

high school chess club. Aditya also serves as a student representative on the Oak Ridge Environmental Quality Advisory Board.



**Alfreda Cook** is a retired data and systems analyst. As an employee of successive contractors to the DOE Oak Ridge EM Program, she compiled and maintained project lifecycle waste volume and

destination data as measures of performance for cleanup projects on the ORR since the early 1990s. During that time, she managed the development of various electronic systems that enhanced the accuracy and reliability of waste information reported to DOE. Alfreda received her B.S. in Organizational Management from Tusculum College. She is a volunteer for CASA of the Tennessee Heartland, an advocacy group for abused and neglected children. Alfreda resides in Oak Ridge.



**Carmen DeLong** has worked in the nuclear industry since 1991 at several DOE sites such as Fernald, ORNL, Portsmouth, and Rocky Flats. She later worked on the decontamination and

decommissioning of Buildings K-29, K-31, and K-33 at ETTP in Oak Ridge, which was the single largest nuclear project of its kind in the history of the U.S. at the time. Her experience includes system designs and modifications for utility and waste management projects.



**Lisa Hagy** is a financial services representative with First Tennessee Bank. She participates in a variety of United Way activities, has been a member of the Chamber of Commerce and served on the board

of a domestic abuse shelter. She attended the University of South Carolina. Lisa is a resident of Alcoa.



**Gracie Hall** was a student representative to the board for FY 2013-14. She graduated from Oak Ridge High School, where she was a member of the National Honor Society, the Oak Ridge High School

marching and concert band, and the International Relations Club. Gracie entered the University of Tennessee-Knoxville in the honors program with an undeclared major, but minoring in Spanish.



**Bob Hatcher** is a research scientist in the Department of Earth and Planetary Sciences at the University of Tennessee-Knoxville and holds the position of Distinguished Scientist and Professor. He

worked 14 years under a joint appointment between the university and ORNL as part of the UT/ORNL Distinguished Scientist Program. He received his B.S. in geology and chemistry and his Master of Science (M.S.) in geology at Vanderbilt University. He earned his doctorate in structural geology from the University of Tennessee-Knoxville. He was the senior author of the early 1990s ORNL effort to produce a new geologic map and report on the geology of the ORR. Bob lives in Oak Ridge.



**Dave Hemelright** is the K-12 Facilities Specialist for Kaatz, Binkley, Jones & Morris Architects, Inc., specializing in Tennessee public school planning, design and construction and maintenance. He

currently serves on the board of the Tennessee School Plant Management Association, American Truck Historical Society, and has served on the Loudon County Planning Commission. He received his Bachelor of Arts (B.A.) in American history from Hobart College. Dave lives in Lenoir City.



**Bruce Hicks** is the sole proprietor of MetCorps, which provides consulting services to several agencies. He retired in 2006 from the U.S. National Oceanic and Atmospheric Administration. From 1980

to 1990, he served as the director of the NOAA Atmospheric Turbulence and Diffusion Division in Oak Ridge. Earlier, he worked for Argonne National Laboratory in Chicago and the Commonwealth Scientific and Industrial Research Organization in Melbourne, Australia. Bruce received his B.S. in physics and mathematics from the University of Tasmania and his M.S. in meteorology from the University of Melbourne.





**Howard Holmes** is a physician with Mercy Primary Care of Lenoir City. Howard earned his B.S. in microbiology and M.S. in natural sciences from the University of Arkansas. He attended medical school at

St. George's University and trained in internal medicine at East Tennessee State University. He resides in Lenoir City.



**Jennifer Kasten** was a nuclear environmental engineer who worked on environmental management and nuclear fuel cycle activities at ORNL and performance analyses associated with the nuclear

industry/nuclear power plants. Jennifer received a B.S. in biology from Valparaiso University, a B.S. in civil/environmental engineering, and an M.S. in nuclear/radiological engineering from the University of Tennessee. Jennifer lives in Knoxville.



**Jan Lyons** is a former adjunct professor of risk management at Southern Methodist University in Dallas, Texas, where she worked in the Engineering Management, Information, and Systems Department.

Jan received her B.A. in economics from the College of William and Mary, her M.S. in systems engineering from Clemson University, and her doctorate in industrial and systems engineering and engineering management from the University of Alabama. She lives in Oak Ridge.



**Fay Martin** retired in 1996 from ORNL, where she worked as an environmental toxicologist. She received her B.S. in chemistry/botany/zoology from the University College of the West Indies, an M.S. in

biology from McMaster University, and her doctorate in environmental toxicology from the University of Tennessee. Fay resides in Oak Ridge.



**Scott McKinney** is the vice president of Petroleum Services with Groundwater & Environmental Services, Inc., which provides environmental assessment and remediation services. Scott received his associate of

engineering technology degree from the State Technical Institute in Knoxville and his B.S. in civil engineering from the University of Tennessee. Scott lives in Knoxville.



**Donald Mei** is a retired engineer who was employed from 1986 to 2007 by Duke Energy in Charlotte, N.C. During that time, he was the supervising engineer and technical manager in the

Radiation Dosimetry and Records Department and the senior engineer/nuclear production engineer in the Radiation Protection Section. He is a Certified Health Physicist by the American Academy of Health Physics. Donald received his B.S. in physics from Cheng-Kung University in Taiwan, his M.S. in health physics from the University of Tennessee, and his doctorate in nuclear engineering from Kansas State University. Donald lives in Oak Ridge.



**Greg Paulus** retired as the president/owner of Metalite Industries, Inc., which produces and modifies products for persons with mobility disabilities. He retired as a lieutenant colonel from the

U.S. Air Force. Greg received his B.S. in mechanical engineering from Marquette University and his Master of Business Administration from Central Michigan University. Greg is a resident of Rockwood.



**Claire Rowcliffe** is a student representative for FY 2014-15 from Hardin Valley Academy. She is the captain of the swim team and is a mentor in the HVA Talons, a group of students who mentor incoming 8<sup>th</sup>

graders. She is a member of the National Honor Society and is involved with Project U, a club that stands against bullying. Claire plans to study biology or forensic science in college.



**Belinda Price** is a senior hydrogeologist with Alliant Corporation. She has more than 25 years experience in environmental investigation and environmental remediation as a geologist, hydrogeologist, and task/

project manager. She is a Certified Professional Geologist in the states of Alabama, California, Florida, Georgia, Kentucky, and Tennessee, and is a member of the Geological Society of America and the East Tennessee Geological Society. Belinda received her B.S. in geology from the University of Bristol, U.K., and her M.S. in hydrogeology from University College London U.K. She lives in Knoxville.



**Mary Smalling** is a student at Pellissippi State Community College in Knoxville concentrating on business and law. Until 2006 she was the owner of a metal finishing and detailing business in

Marshfield, Mo. She was a 911 operator for the Webster County, Missouri Sheriff's Department and served on the board of directors of Southwest Missouri Legal Aid representing Webster County. Mary lives in Louisville.



**Julia Riley** was a student representative to the board for FY 2013-14. She graduated from Hardin Valley Academy, where she was a member of the National Honor Society, Leo Club, a Lions Club

organization, and Venture Crew, a co-ed branch of the Boy Scouts. Julia entered Clemson University in the honors program studying environmental science with a wildlife biology minor.



**Wanda Smith** lives near Rockwood and is the owner of a convenience store in Pine Orchard. She is a former member of Head Start, the Morgan County Industrial Board, and the Morgan County

Civil Service Board. She was a co-chair of the Morgan County Airport Planning Commission.



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

Association Board of Directors. Corkie serves on the board for the Center of Oak Ridge

Oral History. She received her B.A. in education from West Virginia State College and her M.S. degree in curriculum and instruction from the University of Tennessee. Corkie served on the board for one term from 2000 to 2002.



**Scott Stout** is the acting director of the Office of Emergency Services for Roane County, Tennessee. He received his B.A. in liberal arts from Tennessee Wesleyan College and his Hazmat Specialist

Certification from the Tennessee Emergency Management Agency. Scott lives in Rockwood.



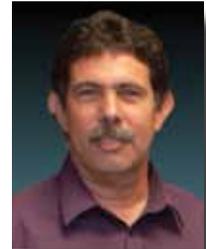
**Wanfang Zhou**, a Knoxville resident, is a hydrogeologist with ERT, Inc., a company that provides information technology, cybersecurity, program support, and engineering and

environmental services to federal and state government agencies. He received his doctorate in water resources and environmental engineering from the University of London's Imperial College of Science, Technology, and Medicine. He is a certified professional geologist by the American Institute of Professional Geologists and a registered professional geologist in five southern states. Wanfang is a member and former vice president of the Tennessee Chapter of the American Institute of Professional Geologists.

## AGENCY LIAISONS



Susan Cange  
ORSSAB Deputy  
Designated  
Federal Officer



Dave Adler  
Alternate Deputy  
Designated  
Federal Officer



Melyssa Noe  
ORSSAB Federal  
Coordinator



Connie Jones  
EPA Liaison



John Owsley  
TDEC Liaison  
(Oct.-May)



Kristof Czaratoryski  
TDEC Liaison  
(June-Sept.)



# SERVING NINE COUNTIES IN EAST TENNESSEE



Current number of board members from each county:

Anderson - 6

Blount - 2

Knox - 4

Loudon - 2

Roane - 4

ORSSAB is seeking members in Morgan, Meigs, Campbell, and Union Counties.

## Join the Board

A broad spectrum of backgrounds and viewpoints is desired for board membership; technical expertise is not required. Applications for membership are accepted at any time and are actively solicited through a variety of media during specific recruitment periods. Residents from the counties affected by DOE operations are encouraged to apply. These counties include Anderson, Blount, Campbell, Knox, Loudon, Meigs, Morgan, Roane, and Union. Applications may be obtained by calling the ORSSAB support offices at (865) 241-4583 or 241-4584 or visiting our web page at [www.energy.gov/orssab](http://www.energy.gov/orssab).

## ABBREVIATIONS

DOE	U.S. Department of Energy
EM	Environmental Management
EPA	Environmental Protection Agency
EMWMF	Environmental Management Waste Management Facility
ETTP	East Tennessee Technology Park
FY	fiscal year
ORNL	Oak Ridge National Laboratory
ORR	Oak Ridge Reservation
ORSSAB	Oak Ridge Site Specific Advisory Board
TDEC	Tennessee Department of Environment and Conservation
TWPC	Transuranic Waste Processing Facility
UCOR	URS CH2M Hill
WIPP	Waste Isolation Pilot Plant
Y-12	Y-12 National Security Complex