

Oak Ridge Site Specific Advisory Board

FY 2012

Annual Report

October 2011 - September 2012

A Message from the Chair



Fiscal year 2012 (October 2011-September 2012) has been a year of growth and commitment for the Oak Ridge Site Specific Advisory Board. Our volunteer board is now composed of 22 members drawn from the communities surrounding the Department of Energy's Oak Ridge Reservation. Included are nine new members appointed just this year. We now have members from Alcoa, Andersonville, Harriman, Kingston, Knoxville, Lenoir City, Norris, Oak Ridge, and Rockwood.

As DOE-EM's primary agent for outreach to the public on all issues relating to the cleanup of hazardous waste left over from the Manhattan Project and the Cold War of the 1950s and 1960s, it is important to the board's credibility that our members fairly represent the make up of our community. The men and women of the board come from various backgrounds and bring with them an enormous variety of skills and experiences. We have people from education, finance, the military, agriculture, the nuclear industry, and government. Often dealing with difficult issues, the members have shown their commitment to our community by working for consensus where every point of view is considered.

Last year brought two new ways for the public to follow board activities. Spearheaded by our student members, we now have videos of our meetings posted on YouTube, www.youtube.com/user/ORSSAB, and we are on Facebook, www.facebook.com/ORSSAB.

The board's commitment to providing advice and recommendations to DOE on the environmental management program produced four recommendations in FY 2012. These came out of 10 board presentations and more than 20 presentations made to the board's five standing committees – Board Finance & Process, Environmental Management, Environmental Management Budget & Prioritization, Stewardship, and Public Outreach. The number and the quality of the presentations are a clear indication of the DOE's commitment to the board's mission.

The details of all these topics will be found in this annual report. As you read through this publication, I hope you will get a better understanding of what our board does, and perhaps you will consider working with us to make environmental remediation of the Oak Ridge Reservation a reality. If you want to learn more about becoming a board or committee member or just have a question, please contact us.

A handwritten signature in black ink that reads "David Martin". The signature is written in a cursive, flowing style.

David Martin, Chair

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MISSION STATEMENT

The mission of the Environmental Management (EM) Site Specific Advisory Board at Oak Ridge, Tennessee, is to provide meaningful opportunities for collaborative dialogue among the diverse multicultural communities surrounding the Oak Ridge Reservation, EM, and the U.S. Department of Energy Oak Ridge Office (ORO). The Board is chartered under the EM Site Specific Advisory Board Charter. At the request of the Assistant Secretary, the ORO Manager, or the ORO Manager for EM, the Board may provide informed advice and recommendations concerning the following EM site-specific issues: cleanup standards and environmental restoration, waste management and disposition, stabilization and disposition of non-stockpile nuclear materials, excess facilities, future land use and long-term stewardship, risk assessment and management, and cleanup science and technology activities. The Board may also be asked to provide advice and recommendations on any other EM project or issue. The Board ensures early, ongoing community access to information (and its interpretation and implications) and dialogue that improves the quality of the decision-making process of EM and ORO.

on the cover - Members of the EM Committee learn about the geologic characteristics of the Oak Ridge Reservation. See pages 11 and 22 for more information.

ORSSAB FY 2012 ANNUAL REPORT

Published December 2012 - Oak Ridge Site Specific Advisory Board
P.O. Box 2001, EM-91, Oak Ridge, TN 37831 - www.oakridge.doe.gov/em/ssab

Introduction

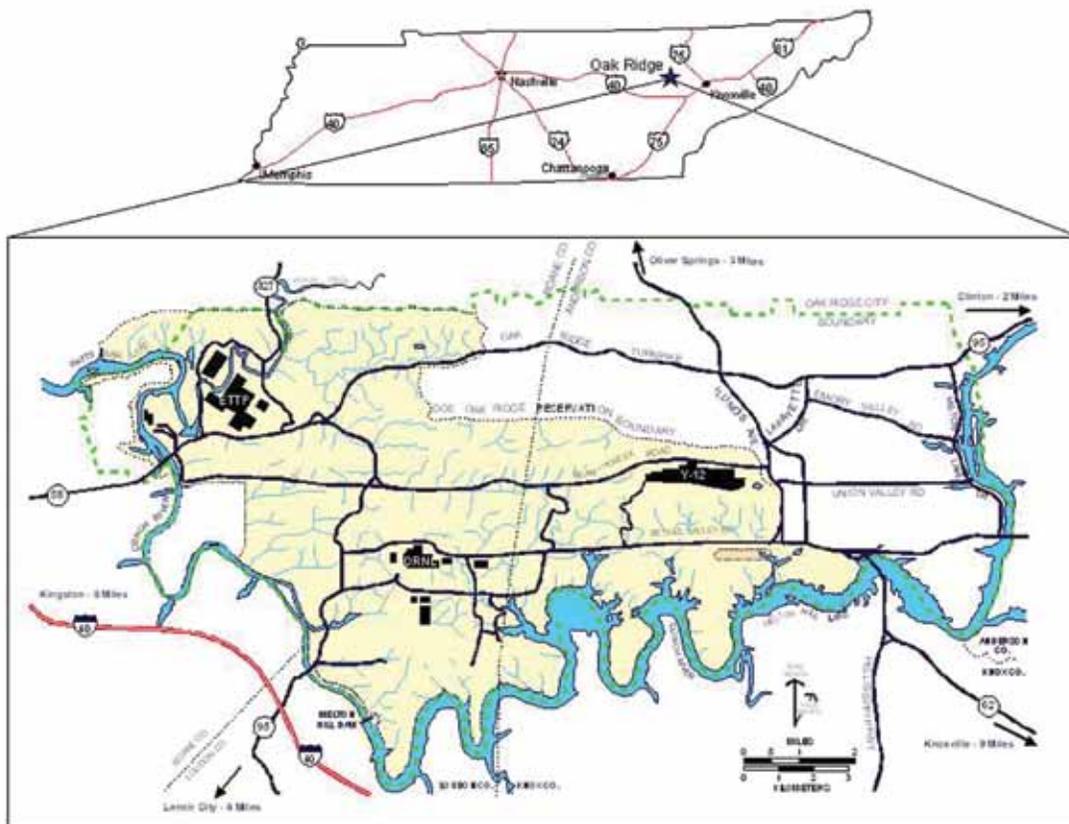
The Oak Ridge Site Specific Advisory Board (ORSSAB) is a federally appointed citizens' panel that provides independent advice and recommendations to the Department of Energy (DOE) on its Oak Ridge Environmental Management (EM) Program. Chartered under the Federal Advisory Committee Act, the board began 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, Manager of the DOE Oak Ridge Office, or 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 appointed



These maps show the location of the Oak Ridge Reservation in East Tennessee and the three main plants of Y-12 National Security Complex, Oak Ridge National Lab, and East Tennessee Technology Park within the reservation boundaries.

by DOE and serve without compensation. Members may serve three two-year terms. At the close of Fiscal Year (FY) 2012, the board consisted of 20 voting members from five counties: Anderson, Blount, Knox, Loudon, and Roane.

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. 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.oakridge.doe.gov/em/ssab. 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 2012 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.

Most ORSSAB committees 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 2012 Board Officers

ORSSAB officers for the year were Maggie Owen, Chair; Ed Juarez, Vice Chair; Chuck Jensen, Secretary.

Key Issues

In FY 2012, the board sent three locally generated recommendations to DOE on topics related to stewardship, the challenges associated with cleaning up the ORR, and the DOE-Oak Ridge EM budget request. The board also signed off on a recommendation developed by the eight local boards that make up the EM SSAB.

Full text of the recommendations and responses is available on the ORSSAB website at www.oakridge.doe.gov/em/ssab/recc.htm.

Recommendation 207 to Automate the Stewardship Verification Process

Each year DOE's Oak Ridge Water Resources Restoration Program (WRRP) prepares the Remediation Effectiveness Report (RER) for the ORR. The RER is a document required by the Oak Ridge Federal Facility Agreement to assess the progress of remedial actions toward goals stated in CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) decision documents and compares pre- and post-remedial conditions at cleaned up sites.

The RER reports on compliance with long-term stewardship requirements for areas remediated under CERCLA where

contaminants or hazardous materials remain in place. It also reports on any actions taken during the reporting year and makes recommendations for future actions. Every five years, the WRRP prepares a Five-year Review, which is required by CERCLA. The Five-year Review determines if a remedy is still appropriate under current conditions.

At the June 2011 Stewardship Committee meeting, representatives of WRRP explained the steps involved in documenting the stewardship requirements for remediated areas with residual contamination. The process is a time-consuming, labor-intensive endeavor that requires input from multiple companies and organizations.



Automating the stewardship tracking requirements will eliminate thousands of pages of paper and hundreds of notebooks. Information will be captured on portable notebook computers and uploaded to a central system.

Currently more than 200 check sheets must be completed by facility managers across the ORR and compiled for the annual RER. As more sites on the reservation are remediated and incorporate stewardship requirements, the amount of documentation will increase significantly.

Because of the amount of documentation required to track CERCLA-required stewardship activities, the Stewardship Committee drafted a recommendation, which the board approved at its October meeting, suggesting that DOE explore ways to automate the stewardship tracking process.

The board recommended that DOE pursue a solution for managing long-term stewardship information on the ORR. Without such a system the process could become overwhelming using current methods.

The system could compile long-term stewardship information for controlled areas on the ORR, such as contaminant and physical hazards remaining, regulatory drivers, land use designations and restrictions, and required controls, such as land use controls and engineering controls.

Having these processes automated would provide for a more streamlined system for annual verification for the RER as well as verification for the Five-year Review. The system would also allow for data summary reports to be generated and could be linked to the DOE geographic information system web site providing anyone online access to details of the long-term stewardship components on the ORR.

DOE accepted the board's recommendation and in January 2012 it reported that it had contracted with MIJARA Corporation to develop a web-based application to house and track all the land use control (LUC) information on the ORR.

The application is populated with CERCLA LUC requirements and related tracking data. Data entry includes:

- Site-specific LUCs, including drivers, restrictions, and controls,
- Inspection and verification points of contact,
- Inspection and verification frequencies,
- Links to related documents (deeds, surveillance and maintenance plans, maps, etc.).

Future use of the application will include creating and entering new LUCs, reviewing existing LUCs, accessing inspection templates and maps, creating and entering inspection reports, documenting and tracking deficiencies noted and corrective actions taken, notifying

appropriate parties of non-compliance, and certifying compliance and accessing applicable forms.

Recommendation 208 for DOE to Use a White Paper Regarding EM Challenges on the ORR

In the latter part of 2011, members of ORSSAB's EM Committee developed a white paper outlining the complexities of the ORR with regard to environmental cleanup of the reservation. Those complexities and related challenges have been recognized for many years by waste management professionals, but they have not been widely publicized. The purpose of the white paper, entitled "Balancing Environmental Management Challenges with the Complexity of the Oak Ridge Reservation," was to summarize the issue succinctly for non-professionals and a wider audience beyond the Oak Ridge community.

Ironically, some of the same reasons the Oak Ridge area was chosen as one of the sites for the nationwide Manhattan Project – water supply, topography, nearby population centers for workforce – now present unique challenges for remediation and cleanup when coupled with other factors, such as high rainfall and complex geology.

The specific points of the paper include discussions of waste types, disposal methods, remediation technologies, geology, rainfall, hydrology, and nearby dense population centers.

The paper concludes that these same factors taken together make the ORR the most complex of any DOE site to clean up.

ORSSAB's EM Committee drafted a recommendation, which the board approved at its January 2012 meeting, that DOE Oak Ridge EM use the paper as part of making its case to DOE Headquarters for annual budget requests. The recommendation noted that Oak Ridge EM baseline budget allocations have been

declining for several years. It said that because of the factors discussed in the white paper, cleanup will be hampered by decreasing, or even level funding.

ORSSAB said it offered the white paper to DOE so that it can be used “in making the case that Oak Ridge has unique technical and environmental challenges that must be taken into consideration during the budgetary discussions establishing funding levels for cleanup activities.” In addition, the board recommended that the white paper “be used by DOE in its efforts to keep the public fully informed of the cleanup challenges and progress at Oak Ridge. It will also help inform the public and educate others as to the challenges faced in full-scale remediation of the reservation.”

In March, Susan Cange, Acting Manager for the DOE Oak Ridge EM program, responded to the recommendation, saying the paper “provides a concise assessment of the challenges associated with the environmental management mission of Oak Ridge. Concepts captured by the paper align with the rationale being advanced by Oak Ridge Environmental Management representatives for completion of ORR cleanup.”

Recommendation 209 on the FY 2014 DOE Oak Ridge EM Budget Request

Each year the DOE Oak Ridge Office of EM develops its cleanup budget request to DOE EM Headquarters for the fiscal year two years in advance. DOE Oak Ridge always asks for input from ORSSAB on its budget requests.

In its recommendation the board said the cleanup strategies for the ORR could only

be achieved with an FY 2014 funding of at least \$420 million. It said anything less than that would achieve little and could result in penalties from EPA and TDEC for missed milestones.

The board said it understood the climate of tight budgets, but it encouraged DOE to consider the effects of reducing risk to the Oak Ridge environment and the long-term cost savings by providing additional funding for the FY 2014 budget and subsequent allocations.

The board said funding levels of \$470 million to \$500 million would allow DOE to address more quickly mercury contamination in East Fork Poplar Creek and disposal of uranium-233 from Oak Ridge National Laboratory (ORNL).

ORSSAB’s recommendation was sent to DOE Headquarters along with DOE Oak Ridge’s budget request.

EM SSAB Recommendation: Chairs’ Letter on Continued Funding of the EM SSAB

At the EM SSAB Chairs’ meeting in April, the chairs approved a letter to David Huizenga, DOE Senior Advisor for EM, asking that funding levels for the EM SSAB be kept at adequate levels. The letter said, “the monetary value of the time spent and recommendations submitted by each local board to their respective decision makers is incalculable.” At the May 2012 board meeting, ORSSAB members voted to endorse the letter.

In his September 2012 response, Huizenga said he would continue to request funds to facilitate ‘open and transparent engagement’ with the EM SSAB and local boards.



The Year's Top News

October 2011

In October DOE released its plan for historic interpretation of the K-25 Building at East Tennessee Technology Park (ETTP). DOE had originally planned to preserve the



Board member Steve Stow makes comments on historic interpretation plans at ETTP.

North Tower of the U-shaped building for renovation as a historic landmark. But the agency later determined the building was too unstable to save and proposed tearing it down and providing other measures for historic interpretation.

The plan presented included demolishing the entire structure, building a number of wayside exhibits, and providing \$350,000 to purchase the Alexander Inn near Jackson Square in Oak Ridge. The inn was originally known as the Guest House where many VIPs stayed during the Manhattan Project.

DOE also proposed to build an interpretive center at the ETTP fire station that would include a viewing tower so visitors could see the footprint of the old building.

DOE held a public meeting on the plan in November where a number of comments were made leading DOE to revise the plan and hold a subsequent meeting in May 2012.

November 2011

In early November representatives of DOE Oak Ridge, UCOR, DOE's prime cleanup contractor, and the Community Reuse Organization of East Tennessee signed

an agreement that establishes objectives to boost reindustrialization at ETTP. The agreement sets goals and a framework to promote commercial ventures at ETTP. It calls for performance criteria, which will measure the number of leased or transferred buildings, creation of jobs,

private sector investments, and the reduction of demolition costs through re-use of existing facilities.

January 2012

In early January, UCOR successfully removed Tank W-1A from the central campus at ORNL. The 4,000-gallon stainless-steel tank was used



Troublesome Tank W-1A was removed from the central campus of Oak Ridge National Lab in January 2012.

for decades to store liquid radioactive waste from nearby Building 3019.

Several years ago DOE attempted to remove the tank and surrounding soil, but workers encountered higher than expected radiation levels and the job was shut down.

The project was restarted in the fall of 2011 and completed in the spring of 2012 with the removal of all of the contaminated soil. The tank itself was size reduced at ETTP and disposed in Nevada.

On January 5 DOE announced that the first shipment of six canisters of Zero Power Reactor plates had been sent to Nevada for disposal. This was the beginning of a long, ongoing effort to dispose fissile uranium-233 material stored at ORNL. The last of 24 shipments was made on June 18.

May 2012

UCOR completed a landfill excavation and cleanup project that had begun a number of years earlier. The job at the K-1070B Burial Grounds at ETTP was finished on schedule and under budget by about \$1.4 million.

More than 100,000 cubic yards of soil and debris were taken to the Environmental Management Waste Management Facility in Bear Creek Valley. It took about 7,800 truckloads to do the job.

Also this month, DOE held another meeting of stakeholders interested in historic preservation efforts at ETTP. While no firm agreement was reached there was real interest in a plan to build a replica of a portion of the K-25 Building that would include elements of the original building, such as converters, compressors, and motors.

DOE took comments from the meeting to revise a memorandum of agreement to finalize historic preservation efforts at the site.

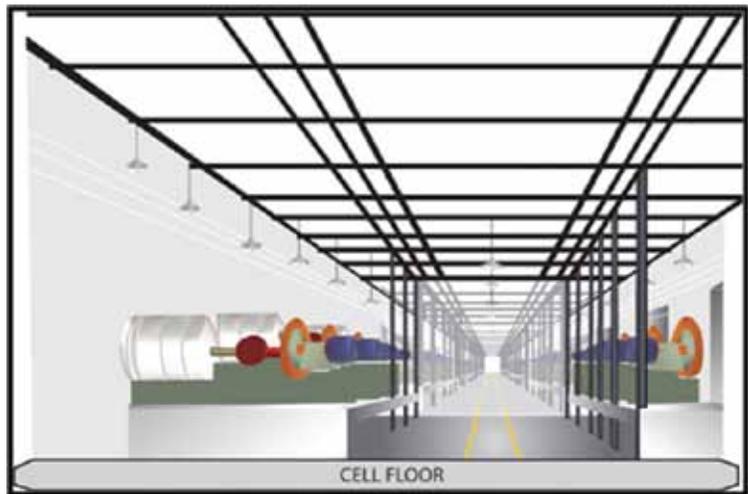
June 2012

The Agency for Toxic Substances and Disease Registry issued a report saying current releases of mercury from the Y-12 National Security Complex do not pose a significant health threat to humans.

While the agency found that current exposures to mercury do not pose a threat to the public, it did identify a number of previous conditions that could have been harmful to children who might have played in East Fork Poplar Creek during the mid-1950s.

July 2012

DOE issued its Final Memorandum of Agreement for Historical Properties at ETTP. The document was based on comments and discussions during a meeting of interested parties in May.



An artist's rendition of the cell floor in the Equipment Building structure to be built at ETTP to replicate a portion of the original K-25 Building. The replica cell floor would have two process cells using as much authentic equipment as possible.

The plan called for the demolition of the entire K-25 Building but would include construction of a scale version of the gaseous diffusion technology using as much authentic equipment as possible. It also included a previously proposed history center in the ETTP fire station, a viewing tower, and funds to purchase the Alexander Inn, although the proposed grant was increased from \$350,000 to \$500,000.

Also this month, DOE received approval to move forward with a new plan to process the remaining uranium-233 stored at ORNL. The material will be processed to eliminate the weapons potential of the fissionable uranium and prepare it for disposal at the Nevada National Security Site.

August 2012

Mark Whitney assumed responsibilities as the new manager for the Oak Ridge EM program. He replaced John Eschenberg, who had been appointed to lead the effort to build the Uranium Processing Facility at Y-12 National Security Complex.



September 2012

UCOR completed demolition of the east wing of K-25, with the exception of a few units on the south end of the wing that are contaminated with technetium and will be dealt with later.

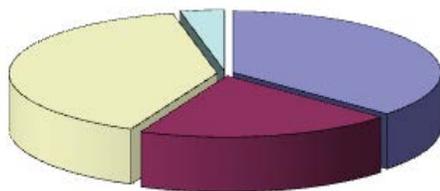
UCOR was poised to move to the North Tower in October of the new fiscal year to complete demolition of almost all of the building.

Also in September DOE and contractor LATA-Sharp Remediation Services finished the final phase of the Building K-33 demolition project at ETTP. The building was demolished the previous September, but the 32-acre slab had been left in place.

In April LATA Sharp workers removed the slab and any remaining contaminated soil, backfilled the area with top soil, and seeded it with grass.

The K-33 project is the largest demolition project completed to date on the ORR.

Time Spent by ORSSAB Members on Board Work



- Board Meetings, 462 member/hours
- Committee Meetings, 251 member/hours
- Chairs' Meetings/conferences, 500 member/hours
- Special Events, 43 member/hours

This graphic shows that ORSSAB members spent more than 1,250 hours in FY 2012 working on the board's mission of providing informed advice and recommendations to DOE. This does not include time spent away from meetings studying DOE-related material or writing recommendations. All board members and student representatives serve without compensation.

Milestones & Special Events

The 'Wild West Tour'

With all of the cleanup activities underway on the ORR, a lot of waste is generated for disposal. Much of it stays in Oak Ridge in approved waste disposal facilities on the reservation. But some of it contains high contamination levels that must be disposed at facilities out west built especially for higher-activity material.

During ORSSAB meetings, discussions often involve talk about waste being 'shipped out west,' but that has little meaning unless the locations are actually seen. In March 2012, several board members traveled to locations where Oak Ridge's higher-activity waste is disposed.

The group visited the Nevada National Security Site, which accepts low-level and mixed low-level waste. While in Nevada, the travelers were guests at the Nevada Site Specific Advisory Board meeting, where the discussion centered on receiving uranium-233 waste, some of which originates from Oak Ridge, and on safe transfer of waste to the site.

The 'wild west' tour finished with a visit 2,150 feet underground at the Waste Isolation Pilot Plant near Carlsbad, N.M. They saw how contact-handled and remote-handled transuranic

waste is stored in caverns, or drifts, mined from an ancient salt bed. Oak Ridge sends both contact- and remote-handled waste to Carlsbad.

Community Outreach

In FY 2012, ORSSAB achieved numerous successes engaging the public concerning Oak Ridge's EM mission. Through monthly public board and committee meetings and various activities coordinated by its Public Outreach Committee, the board strives to provide meaningful opportunities for dialogue between EM and the surrounding communities.

A key accomplishment was the development of five new 'infomercials.' These 30- and 60-second television spots were created to air as public service announcements on local channels, serve as introductory materials for the monthly meeting broadcast DVDs, and provide new content on the board's Facebook



Almost a half-mile below ground, ORSSAB members tour the Waste Isolation Pilot Plant in New Mexico. From left are Maggie Owen; Tom Morgan with WIPP; Gloria Mei; Dirk Roberson, WIPP guide; Dave Hemelright; Bobby St. John, WIPP guide; David Martin; and Fay Martin.

and YouTube sites. The videos invite public participation and provide information about ORSSAB's work and EM activities on the ORR.

The launch of the board's Facebook and YouTube sites was an important addition to the outreach program. The sites provide a plethora of materials and information on the numerous ways the public can become involved with the board and the DOE Oak Ridge EM program.

A new interactive display for the ORSSAB exhibit was installed at the American Museum of Science and Energy in Oak Ridge in 2012. This colorful touch-screen kiosk focuses on waste management activities and challenges for the EM program and features five programs designed to engage the public:

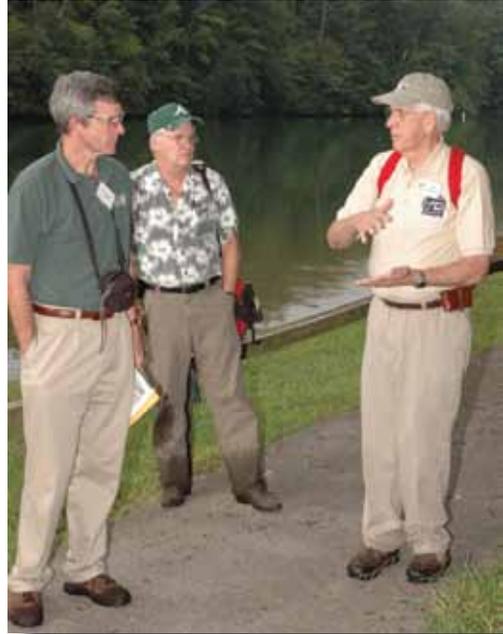
- Building the Weapons Complex,
- Categorizing Nuclear Waste,
- The Lifespan of Nuclear Waste,
- Waste Management Challenges, and
- Transporting Radioactive Waste.

The kiosk complements an already robust exhibit of touch-screen kiosks, displays, and posters that tell the Oak Ridge cleanup program story.

In addition to these activities, the board maintained an aggressive public outreach effort throughout the year that included participation in the Oak Ridge Earth Day festival, an ongoing program of advertisements and cable television broadcasts, and publication of the ORSSAB annual report and quarterly Advocate newsletters.

Groundwater Researcher

For some time, ORSSAB's EM Committee has been working to identify an independent researcher to study groundwater flow through fractured rock on the ORR. Understanding how groundwater flows would be useful in understanding how contamination on the reservation can make its way into



EM Committee Chair Bob Hatcher, right, himself a respected geologist, explains some of Oak Ridge's unique geologic features to Dan Goode, left, and Michael Bradley of the U.S.G.S.

groundwater and where the contamination may migrate.

Dan Goode, with the U.S. Geological Survey, a possible candidate to do the work, was invited to spend two days in Oak Ridge in August to become better acquainted with the ORR and its geologic characteristics. Goode, along with several members of the EM Committee and representatives of EPA and TDEC, visited several locations on and off the reservation.

Discussions among ORSSAB, DOE, EPA, and TDEC continue on a path forward for groundwater flow study.

Membership

In sports parlance, FY 2012 was a 'rebuilding year' for ORSSAB. As a result of term limits and resignations, ORSSAB seated nine new members during the year, plus two new student representatives.

Getting new members up to speed required orientation sessions and tours of the ORR.

Board Meetings

ORSSAB meetings are held the second Wednesday of each 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.

October

DOE's Dave Adler provided a background and status report on the Bear Creek Burial Grounds near Y-12 National Security Complex. The burial grounds hold about 40 million pounds of depleted uranium from operations on the ORR. The collection of pits and trenches contribute to contamination in nearby Bear Creek.

DOE, EPA, and TDEC have been discussing what to do about the burial grounds for years, but have been unable to reach an agreement. Adler said there is no immediate risk to human health and a number of interim measures are being considered to mitigate continued contamination.

November

The November presentation was by Laura Wilkerson, DOE's ORNL and Y-12 Portfolio Project Director. She discussed the Hot Cells Project at ORNL.

Six hot cells used for processing radioactive isotopes were housed in Building 3026 in the central campus of the lab. The structure was badly deteriorated and was demolished in 2010. That left the hot cells exposed, but they were coated with a polyurea material for protection from the elements and to protect against radioactive releases.

At the time, preparations were being made for demolition and removal of the hot cells.



John Krueger updated the board on the Uranium-233 Project at Oak Ridge National Lab.

December

The board did not meet in December.

January

The January presentation was on "Transforming Oak Ridge Through Asset Revitalization – Oak Ridge Reindustrialization at Work." Brian Henry, team leader of the Reindustrialization and Technical Asset Team, gave the presentation.

When the Cold War ended in the mid-1980s and most operations at ETTP ended, DOE began to consider how to make the best use of the site. The Defense Authorization Act of 1993 made possible the establishment of community reuse organizations to make use of DOE properties like ETTP either through leases or transference to private entities.

Henry said the goal for ETTP after cleanup is for the area to be a private sector business industrial park.

He said the key to the success of reindustrialization is the partnerships of DOE, EPA, TDEC, the City of Oak Ridge, the Oak Ridge Economic Partnership, and the Community Reuse Organization of East Tennessee.

February

Alan Stokes, DOE, talked about the DOE Oak Ridge EM budget and prioritization process.

He explained that a budget request to DOE Headquarters for any given year begins two years ahead of time. At any time there are three fiscal years of budget work being done: the current fiscal year in which appropriations are received, the next fiscal year that includes the President's request to Congress, and the following fiscal year when budget requests are being developed at the local level.

He said \$420 million had been appropriated for Oak Ridge in FY 2012. Oak Ridge receives two major appropriations: EM defense appropriations, and decontamination and decommissioning. Stokes explained that the funds are separate and money cannot be moved between them.

He said a major part of the budgeting process is prioritization. Projects must be prioritized based on the amount of money appropriated.

March

Jim Kopotic, DOE Federal Project Director for the ETTP cleanup, was the guest speaker at the March meeting.

All enrichment activities at ETTP had ended by the mid-1980s, and, at the time, the annual costs for surveillance, maintenance, security, and essential services were \$70 million.

Cleanup began in the early 2000s with the signing of an interim record of decision (ROD) for Zones 1 and 2. Zone 1 is an area of about 1,400 acres that surrounds Zone 2 from the southeast to the northwest. Zone 2 is the main industrial area of ETTP where all the major buildings are located. Zone 2 is an area

of about 800 acres, 200 of which have been remediated.

The largest of the demolition projects is the K-25 Building. Kopotic said demolition of all of K-25 is scheduled for completion in July 2014.

April

The presentation was an update on the Uranium-233 (U-233) Disposition Program by John Krueger, DOE Federal Project Director.

U-233 was studied as a possible replacement for uranium-235 when it was thought that isotope might become unavailable. Almost 1,100 canisters of U-233 are stored in heavily shielded hot cells in Building 3019 at ORNL.

Krueger said the early mission of the U-233 Disposition Program was to dissolve the entire U-233 inventory, extract thorium-229 for medical purposes, stabilize the remaining U-233, and return it to storage. But in 2005 Congress directed that the thorium extraction be stopped and all of the U-233 be disposed.

An analysis done between 2006 and 2008 revealed new programmatic needs for some of the U-233 that included the transfer of some of it needed by other DOE programs and the remainder either be downblended with depleted uranium or disposed directly.

Krueger said the alternative approach reduces waste volume, processing time, and transportation. The new plan was

approved by the Deputy Secretary of Energy in 2011.



Brian Henry discussed reindustrialization efforts at East Tennessee Technology Park.

May

Cate Alexander, Designated Federal Officer for the EM SSAB, was the guest at the May meeting. She said DOE has 11 advisory boards. One of them is the EM SSAB, which is made up of eight SSABs around the nation, much like ORSSAB.

Her presentation focused on explaining the Federal Advisory Committee Act (FACA), which charters the EM SSABs. FACA became law in January 1973 and established the framework for advisory committees. FACA ensures public input on government decisions, prevents domination by special interests by requiring balance in membership, and provides open discussions of policy. Balanced membership requires a cross section of people living in an affected area must be considered for membership.



DOE's Laura Wilkerson made three presentations to the board in November 2011, June 2012, and September 2012.

June

Laura Wilkerson returned for a report on the status and future plans for Y-12 cleanup.

She said the cleanup of Y-12 will be complex. It includes 106 excess facilities that will have to be decontaminated and demolished, and soil and groundwater will have to be remediated. The cleanup is challenging because of mercury contamination in soil and groundwater, deteriorating facilities, and the execution of



View the first hour of board meetings on YouTube at:
www.youtube.com/user/ORSSAB

work in close proximity to ongoing missions. Decisions on soil and groundwater are not scheduled to be made until the 2025 timeframe, but she said actions have been taken to ensure contaminated groundwater is contained within the boundaries of Y-12.

Long-term plans include source removal or stabilization of contamination. That includes demolition of the large process facilities that have mercury contamination underneath, and either the removal or stabilization of contaminated soils.

July

Jack Hanley of the Agency for Toxic Substances and Disease Registry talked about possible health effects related to mercury contamination in East Fork Poplar Creek.

He said the agency's study of mercury in air, soil, and sediment in the East Fork Poplar Creek floodplain indicated there is no public health hazard. But while the assessment indicated no health hazards from soil, sediment, water, or fish in the creek or Watts Bar Reservoir, he said it was prudent for people to limit their exposures to those media and certain fish.

August

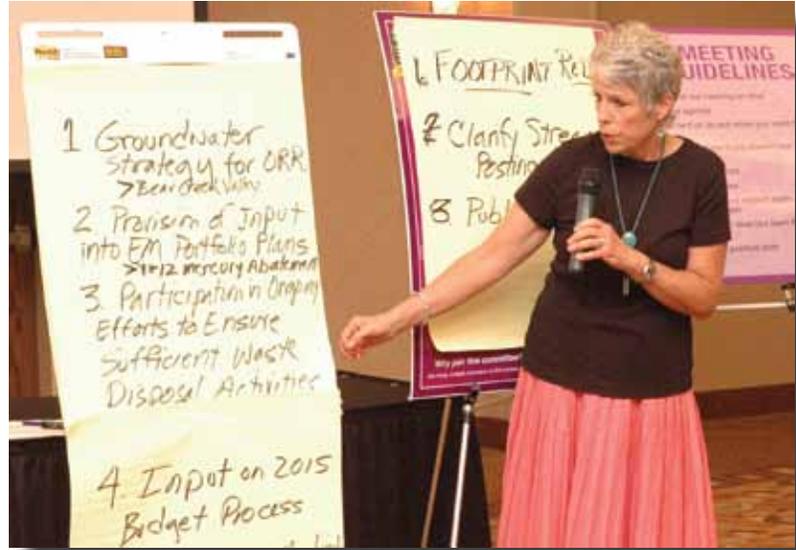
ORSSAB held its annual meeting at the Holiday Inn in Pigeon Forge, Tenn.

Susan Cange, the board's Deputy Designated Federal Officer, discussed the Oak Ridge EM near-term goals and long-term strategic plan. She concluded by talking about the role of the ORSSAB as it relates to DOE. For FY 2013, she encouraged the board to focus its activities to:

- maintain awareness of key program focus areas,

- provide recommendations on high-level programmatic decisions and project implementation,
- solicit input from the broader regional stakeholder community, and
- participate in national dialogues concerning the EM program.

Board members reviewed ORSSAB's mission and accomplishments in FY 2012 and began prioritizing topics of discussion for FY 2013.



Jenny Freeman facilitated the board's annual meeting in Pigeon Forge, Tenn.

September

The final meeting of FY 2012 again featured Laura Wilkerson who talked about the status and cleanup plans for ORNL.

activities at the lab. Much of the cleanup will involve various radioisotopes that will be difficult to deal with.

The cleanup of ORNL will be complex and lasting over a number of years. She said the primary challenge will be completing the cleanup safely in the midst of ongoing

The board elected officers for FY 2013. They are: David Martin, Chair; Dave Hemelright, Vice Chair, and Chuck Jensen, Secretary.



At the September meeting the board elected officers for FY 2013: David Martin, center, Chair; Dave Hemelright, left, Vice Chair; and Chuck Jensen, Secretary.

Members & Liaisons

The following members and student representatives served during all or part of FY 2012.



Jimmy Bell provides consulting services to Egan, Fitzpatrick, Malsch & Lawrence, PLLC, a legal firm involved in environmental issues. Previously, he worked as a chemist at ORNL from 1963 to 1995.

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



Alfreda Cook is retired from URS/CH2M Oak Ridge (UCOR) after serving as the Waste Performance Integration Manager until January 2012. Over the past 20 years working as a data and systems analyst, she has

been instrumental in compiling and reporting corporate waste disposition data for several DOE Oak Ridge environmental management contractors. She received her BS in organizational management from Tusculum College. She is a member of CASA of the Tennessee Heartland, an advocacy group for abused and neglected children. Alfreda resides in Oak Ridge.



Lisa Hagy is a financial services representative with First Tennessee Bank, and she participates in a variety of United Way activities. She has also served as a member of a professional women's organization, a domestic abuse shelter

board, and the Chamber of Commerce. She

attended the University of South Carolina. Lisa lives in Alcoa.



Janet Hart is an environmental engineer with the Knox County Fire Prevention Bureau. She received BS degrees in civil engineering and education and a master of science (MS) in environmental

engineering from the University of Tennessee-Knoxville. She is a member of the American Society of Civil Engineers and an Engineer-in-Training for the State of Tennessee. Janet resides in Andersonville.



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. Bob lives in Oak Ridge.



Dave Hemelright is the marketing director for Alliance Corporation, which provides construction services, primarily to school systems. Dave has 20 years of construction management

experience in commercial, retail, and food service construction, and 10 years in maintenance management for retail and K-12 public schools. He received his Bachelor of Arts (BA) 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 on issues related to the ways in which components of the environment interact. He retired in

2006 from the U.S. National Oceanic and Atmospheric Administration, where he served as director of the Air Resources Laboratory. He also worked for Argonne National Laboratory and the Commonwealth Scientific and Industrial Research Organization in Melbourne, Australia. Bruce received his BS in physics and mathematics from the University of Tasmania and his MS in meteorology from the University of Melbourne. Bruce resides in Norris.



Howard Holmes is a physician with Mercy Primary Care of Lenoir City and has worked in the medical field since completing his internship/residency in 1986. Howard received his BS in

microbiology and his MS in natural sciences from the University of Arkansas. Howard received medical training in general medicine from St. George's University and in internal medicine from East Tennessee State University. He resides in Lenoir City.



Charles Jensen is the owner and manager of Diversified Technologies, which manufactures, designs, and services wastewater treatment systems for nuclear power plants. He has founded

three technology companies and is operating a third. He has authored several technical papers regarding waste processing in the commercial nuclear industry. Charles lives in Knoxville.



Betty Jones is employed by B&W Technical Services Y-12 as a chemical process supervisor. She holds an associate's degree in applied science in environmental health technology from

Roane State and a BS in organizational management from Tusculum College. Betty lives in Oak Ridge. Betty completed her second term and left the board in June 2012.



Edward Juarez lives in Loudon and is a retired utility worker who was employed at the commercial Fermi 2 nuclear reactor site in Michigan for 15 years as a trainer, outage manage-

ment expeditor, and senior maintenance planner. He holds degrees in sociology and criminal justice. Ed completed his second term and left the board in June 2012.



Jennifer Kasten is a retired nuclear/environmental engineer. She was most recently employed from 2000 to 2005 at the Tennessee Valley Authority Watts Bar Nuclear Power Plant. From

1997 to 2000 she worked in the Nuclear Engineering Department at the University of Tennessee. She also worked at ORNL on gaseous diffusion plant safety issues and radioactive waste research. Jennifer received a BS in biology from Valparaiso University, a BS in civil/environmental engineering, and an MS in nuclear/radiological engineering from the University of Tennessee. Jennifer lives in Knoxville.

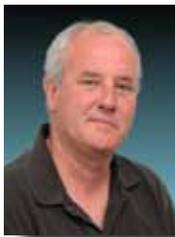


Ross Landenberger is a student representative to the board for FY 2012-13. He is a senior at Oak Ridge High School, where he is a member of the International Relations Club and the National Honor Society. He plans a career in medicine.



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 BA in economics from the College of William and Mary, her MS in systems engineering from Clemson University, and her PhD in industrial and systems engineering and engineering management from the University of Alabama. She lives in Oak Ridge.



David Martin is a self-employed engineer who has worked on a wide range of power engineering assignments worldwide. He resides in Harriman, where he operates his family's farm, which is part of the

Tennessee Century Farms Program.



Fay Martin retired in 1996 from ORNL, where she worked as an environmental toxicologist. She received her BS in chemistry/botany/zooology from the University College of the West Indies, an MS in biology from

MacMaster University, and her PhD 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. He has 20 years of experience

performing all phases of project management, from site characterization through remediation and closure. Scott received his associate of engineering technology degree from the State Technical Institute in Knoxville and his BS in civil engineering from the University of Tennessee. Scott lives in Knoxville.



Kasey McMaster was a student representative on the board for FY 2011-12. Kasey graduated from Oak Ridge High School, where she participated on the volleyball team. She became interested in the board

through her advanced placement environmental science class.



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. Donald received his BS in physics from Cheng-Kung University in Taiwan, his MS in health physics from the University of Tennessee, and his PhD in nuclear engineering from Kansas State University. Donald lives in Oak Ridge.



Gloria Mei is a Senior Technical Staff at ORNL, where she manages and conducts program activities in radiological control and design. She is a diplomate of the American Board of Health

Physics and is an adjunct associate professor in the Nuclear Engineering Department at the University of Tennessee. Gloria is an Oak Ridge resident. Gloria rotated off the board in June 2012 after six years of service.



Ron Murphree is a professional engineer and certified professional estimator with 25 years of construction-related experience. Since 1996 he has been the chief estimator for

Denark Construction Co., in Knoxville, where he lives. Ron rotated off the board in June 2012 after six years of service.



Maggie Owen is a field radiological engineer for the K-25/K-27 Project at ETTP. She received her BS from Francis Marion University in South Carolina and is certified by the National Registry of Radiation

Protection Technologists. She is a member of the East Tennessee Chapter of the Health Physics Society, the Down Syndrome Awareness Group of East Tennessee, and the Oak Ridge Toastmasters Club. Maggie lives in Oak Ridge. Maggie resigned from the board in October 2012 after four years of service.



Greg Paulus retired as the president/owner of Metalite Industries, Inc., which produces and modifies products for persons with mobility disabilities. He is retired from the U.S. Air Force, where he was a

lieutenant colonel. He received his BS in mechanical engineering from Marquette University and his MBA from Central Michigan University. Greg is a resident of Rockwood.



George Roberts is retired from Precision Disc Corporation, where he worked until 1990 as a plant engineer. He served in the U.S. Air Force for 22 years, achieving the rank of captain. He worked as a

radio maintenance technician, a nuclear power plant operator/maintenance technician, a radar maintenance officer, and a squadron commander of a 1,000-man unit. George lives in Heiskell. He resigned from the board in November 2011 after seven months of service.



Amira Sakalla was a student representative on the board for FY 2011-2012. Amira graduated from Hardin Valley Academy where she participated on the tennis team. She was active in clubs such as the

National Honor Society and French Club and volunteered as a referee with the American Youth Soccer Organization.



Corkie Staley is a retired teacher from the Oak Ridge City Schools. She is a current member and past president of the Oak Ridge Education Association, a member of the National Education Association, and a member of the board of

directors of the Tennessee Education Association. She received her BA in education from West Virginia State College and her MS degree in curriculum and instruction from the University of Tennessee. Corkie previously served on the board for one term from 2000 to 2002 and was reappointed in January 2012. She lives in Oak Ridge.



Robert Stansfield retired as a division geologist from the U.S. Army Corps of Engineers. He received his BA in geology from the University of Connecticut. During his 40 year career, he worked for various commercial and government organizations and has authored and co-authored several hydrogeologic publications. Robert lives in Knoxville.



Sam Yahr, a senior at Hardin Valley Academy, is a student representative to the board for FY 2012-13. At Hardin Valley Sam is a member of both the National Honor Society and the National Society of High School Scholars. He plans to attend the University of Tennessee after graduation and major in chemical engineering.



Steve Stow retired from UT-Battelle where he worked as director of the American Museum of Science and Energy in Oak Ridge. He has authored or co-authored many publications and has been involved with remediation and land use issues for almost three decades. Steve lives in Knoxville. Steve rotated off the board in June 2012 after six years of service.



Scott Stout is the assistant director of the Office of Emergency Services for Roane County, Tennessee. He received his BA in liberal arts from Tennessee Wesleyan College and his Hazmat Specialist Certification from the Tennessee Emergency Management Agency. Scott lives in Rockwood.



Tom Valunas retired in 2009 from Mid-America Renewable Fuels, Inc., where he served as chief financial officer. He previously served in a similar capacity for several companies. He received his BS in economics and his MBA from Wharton School at the University of Pennsylvania. Tom is a resident of Oak Ridge.

AGENCY LIAISONS



Susan Cange
ORSSAB Deputy
Designated
Federal Officer



Melyssa Noe
ORSSAB Federal
Coordinator



Dave Adler
DOE Liaison



Connie Jones
EPA Liaison



John Owsley
TDEC Liaison

Committees

Board Finance & Process

This committee has overall responsibility for budget prioritization for the board, including setting budget targets for each type of expenditure, proposing general budget guidance, and reviewing monthly costs. The committee also 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.

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.

Environmental Management Budget & Prioritization

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 Environmental Management Budget & Prioritization Committee was formed in FY 2011 for the sole purpose of drafting a recommendation for the full board to consider on EM's budget request.

In FY 2012 members of the committee met with DOE personnel to learn about projects DOE wanted to focus on in 2014 based on the amount it expected to receive. Later the committee met with EPA and TDEC representatives to determine what their agencies wanted to see accomplished in

Oak Ridge. All three agencies were in basic agreement on what projects should receive priority.

Based on that input the committee drafted its recommendation for the board to consider (Recommendation 209 on the FY 2014 DOE Oak Ridge EM Budget Request, see Key Issues).

Environmental Management

This committee evaluates and drafts recommendations on DOE's planning and implementation of ORR environmental restoration projects.

The EM Committee was active on a number of topics in FY 2012.

K-25 Demolition

The committee received updates on the demolition of the K-25 Building at ETTP.

Because of technetium-99 contamination in several sections of the south end of the remaining east wing of the building, those sections were isolated by cutting through the wing above the contaminated sections. Demolition began there and proceeded north.

A decision will be made later to determine where the contaminated sections will be disposed.

NPDES Permit for Y-12

The committee received a briefing on a new National Pollutant Discharge Elimination System permit (NPDES) for Y-12 National Security Complex. The proposed permit has several compliance requirements on DOE to reduce mercury levels in East Fork Poplar Creek.

While CERCLA exempts Superfund sites (like the ORR) from having discharge permits

under the Clean Water Act, TDEC argues the exemption isn't valid because mercury going into the creek is blended with other industrial wastewaters.

DOE has taken steps to mitigate mercury releases, but it appealed the NPDES permit requirements.

White paper on the complexities of cleaning up the ORR

Members of the committee drafted a white paper that succinctly explained all the reasons cleaning up the ORR is the most challenging of all DOE EM sites.

The committee drafted a recommendation, which the board approved, asking DOE Oak Ridge to use the paper as an educational tool and to help make the case for additional cleanup funds (Recommendation 208 for DOE to Use a White Paper Regarding EM Challenges on the Oak Ridge Reservation, see Key Issues).

Siting of a second CERCLA waste disposal facility

Most of the waste from cleanup operations on the ORR goes to the CERCLA waste disposal facility in Bear Creek Valley.

Because more work has been added to the DOE Oak Ridge EM program, the current facility is forecast to be full in 2016, so a second disposal facility is needed.

The committee learned that three sites were identified for further consideration for another waste disposal site: White Wing Scrapyard between Y-12 and ETTP, East Bear Creek Valley, and West Bear Creek Valley.

Transuranic Waste Processing Center

The Transuranic Waste Processing Center processes both contact-handled (CH) and remote-handled (RH) transuranic waste for disposal at either the Waste Isolation Pilot Plant in New Mexico or the Nevada National Security Site (RH sludge).

Plans call for CH processing to be completed by FY 2014 with shipping completed by 2017. RH debris processing and shipment is to be completed by 2016. Processing of RH sludge is scheduled to begin in 2016 with a 2019 completion date.

ETTP Record of Decision

ETTP is divided into two zones. Zone 1 is a buffer around Zone 2, which comprises the main industrial complex.

In 2002 an interim ROD was signed for Zone 1 that established cleanup goals for worker and groundwater protection. A Zone 2 ROD was signed for soil, buried waste, and subsurface structures.

The plan was to issue a final sitewide ROD that would include a remedy for groundwater. That plan was delayed pending the results of a groundwater treatability study for Zone 2, so DOE and the regulators agreed to have separate RODs for each zone. The work to complete a final Zone 1 ROD has been accelerated since a groundwater study was not needed.

The first draft of the Zone 1 ROD is expected in September 2013.

Groundwater flow characteristics

For a number of months the committee has been interested in finding an independent expert to study groundwater flow characteristics in fractured rock on the ORR. The committee believes a study of groundwater flow would help it better understand how groundwater moves on the reservation and how it potentially could carry contaminants into groundwater beyond the reservation boundaries.

Committee chair Bob Hatcher identified Dan Goode of the U.S. Geological Survey as a potential candidate to do the work.

In August Dr. Goode visited Oak Ridge. Along with Dr. Hatcher, himself a respected geologist

and research scientist at the University of Tennessee-Knoxville, and several members of the EM Committee, Dr. Goode toured several off-site locations around Oak Ridge to become more familiar with area geology.

On the second day of his visit he toured the ORR, had meetings with DOE, EPA, and TDEC representatives, and met with the full EM Committee.

Discussions continue among ORSSAB, DOE, EPA, and TDEC on how to engage his services.

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.oakridge.doe.gov/em/ssab.

Newspaper ads about the board's monthly meetings are placed in the Oak Ridger and Oak Ridge Observer, 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.

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 the Oak Ridge Earth Day and Secret City Festival, where information is distributed to interested individuals.

The annual Public Environmental Survey provides the public with an avenue to express their concerns about various activities associated with the EM program.

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.

Stewardship

Areas where contamination has been left in place after remediation must be continually monitored and protected to make sure the contamination does not escape its confines or that humans do not disturb the area that could lead to harmful personal or environmental exposure. Stewardship is the means and methods of protecting human health and the environment from contaminated material remediated in place.

Appropriately, the ORSSAB Stewardship Committee has been a champion for all things related to stewardship of remediated lands and water, not only in Oak Ridge, but throughout the DOE complex.

Following are the key issues the committee worked on in FY 2012.

Site Transition

In recent years, the committee has been concerned about stewardship of waste remediated in place at DOE sites with ongoing missions, like ORNL or Y-12. During FY 2012 the committee worked with DOE on the development of a site transition fact sheet that sets out guidance for transferring remediated areas to the site landlords.

In November committee members participated in a conference call with DOE personnel in Washington, DC, on a draft fact sheet. The committee provided comments on the document, which was shared with other SSABs for input.

In February 2012 a revised fact sheet, now called a Site Transition Summary was issued. The committee continues to work with DOE on fine tuning the document.

Land Use Manager

In FY 2011 the committee drafted a recommendation, which was approved by the board in FY 2012 (Recommendation 207 to Automate the Stewardship Verification Process for the Remediation Effectiveness Report, see Key Issues).

The report annually documents and confirms all of the stewardship controls that are in place for remediated sites on the ORR. The process of compiling that information is a labor intensive, time consuming process that involves almost 200 multi-page reports. As more areas of the ORR are remediated it became evident that the current system would become exceedingly burdensome.

The committee recommended that DOE find a way to automate the process. DOE contractors subsequently found a program already in use by the Navy called the Land Use Manager (LUM). The system was modified for use on the ORR to automate the stewardship tracking process by inputting CERCLA requirements into the system to collect, maintain, and track status. Field inspectors use sturdy, portable laptop computers to input stewardship tracking information for each site. Reports can be generated from LUM.

Since reports are required at different times during the year, the LUM automatically notifies responsible parties that an inspection is due.

LUM is still in a testing phase, but is expected to be fully operational early in FY 2013.

ORR GIS

Related to the LUM is the development of a geographical information system (GIS) for the ORR. The purpose of the GIS is to provide the public a means of accessing stewardship information for remediated areas on the reservation.

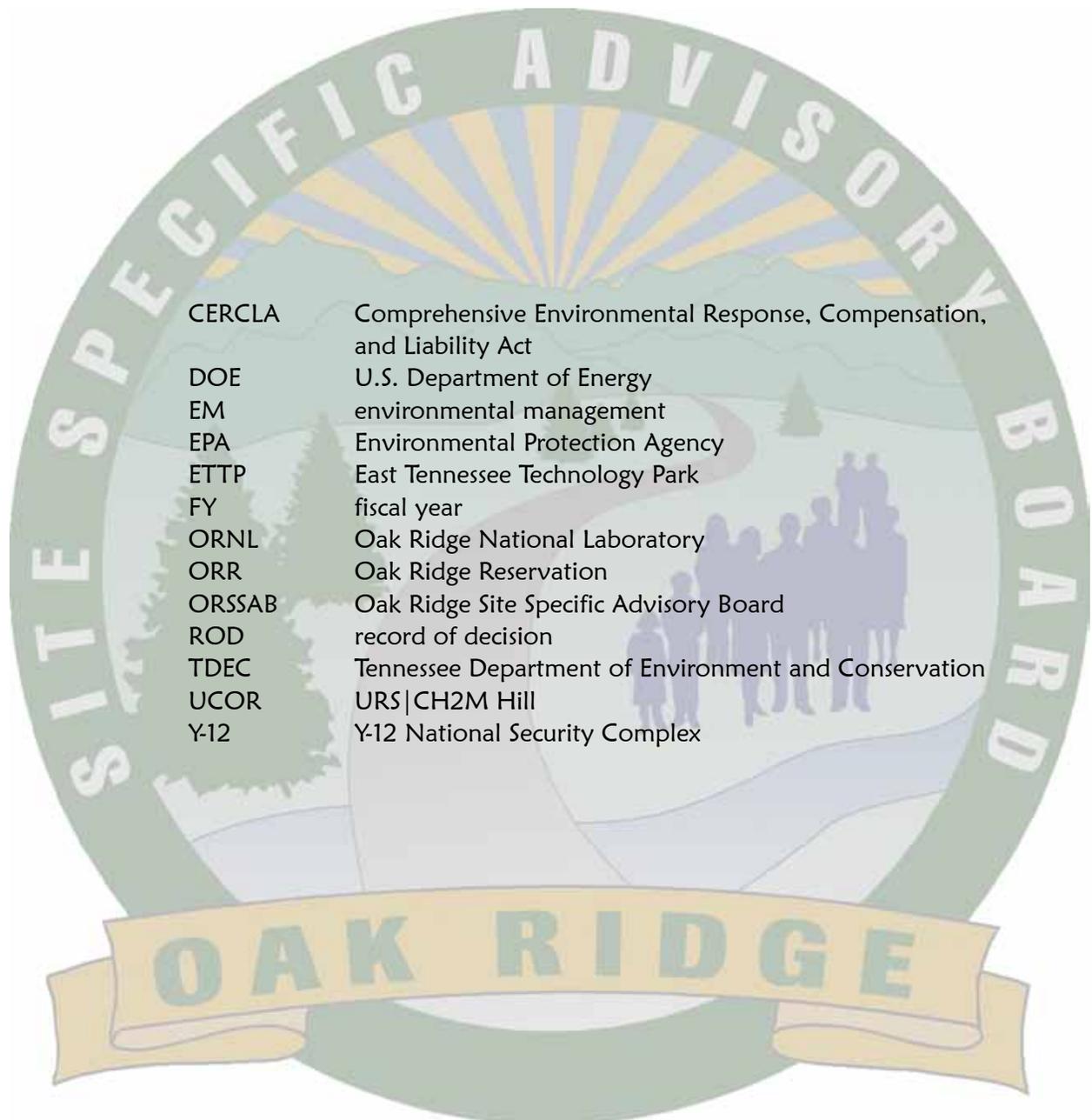
By accessing the GIS with a personal computer, a user can hover over parts of the GIS map. A box will appear providing information on land use controls and references to related documents.

The committee received updates on the development of the GIS throughout the year.

Annual Remediation Effectiveness Report

Each year the committee receives a briefing on the annual Remediation Effectiveness Report. The report assesses progress of remedial actions on the ORR and some off-site locations toward stated goals and compliance with long-term stewardship requirements.

Abbreviations



CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOE	U.S. Department of Energy
EM	environmental management
EPA	Environmental Protection Agency
ETTP	East Tennessee Technology Park
FY	fiscal year
ORNL	Oak Ridge National Laboratory
ORR	Oak Ridge Reservation
ORSSAB	Oak Ridge Site Specific Advisory Board
ROD	record of decision
TDEC	Tennessee Department of Environment and Conservation
UCOR	URS CH2M Hill
Y-12	Y-12 National Security Complex



Oak Ridge Site Specific Advisory Board
P.O. Box 2001, EM-91, Oak Ridge, TN 37831