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ADVOCATE

Air Horns Signal K-25 Demolition... Historic Preservation Still Unsure

At the signal from hand-held air horns, four track-driven excavators with rotating shears began pulling down the southwest corner of the

debris is disposed. "The workers on this project have diligently prepared the building to be demolition ready, and today we see the results of the extensive planning and commitment to undertake this job in a safe manner," said Gerald Boyd, Manager of the DOE Oak Ridge Office.



Track-driven excavators began taking apart the historic K-25 Building at East Tennessee Technology Park on December 16, 2008.

After several short speeches and recognition of many people responsible for all the work that has been done to date, four of the participants, Boyd; Ines Triay, the DOE Acting Assistant Secretary for Environmental Management; Helen Hardin, Chief of Staff for U.S. Congressman Zach Wamp; and David Walker, President of Bechtel National, blew the air horns to signal the excavator operators to begin their work.

There have been efforts to save the North Tower of K-25, or at least a portion of it, for historical purposes. In 2005 a memorandum of agreement (MOA) was signed by DOE, the Tennessee State Historic Preservation Office, the Advisory Council on Historic Preservation, the Oak Ridge Historic Preservation Association, and the City of Oak Ridge to leave the North Tower, decontaminate it, clean it out, put a new roof on it, and save some of the representative operating equipment. The structure would then be turned over to another entity for additional renovation as a tourist attraction.

But the old building had been sitting basically unattended for more than 40 years, and it was deteriorating rapidly. The roof leaked, causing all kinds of water damage inside. Many of the supporting beams were cracking, and the top operating floor was becoming dangerously unstable. In fact, a worker fell through the floor in 2006 and

K-25 Building at East Tennessee Technology Park on December 16, 2008. It was a momentous beginning of a demolition process that has taken years of preparation and hundreds of millions of dollars.

The incredibly complicated old building was built in just 18 months during World War II to enrich uranium for use in atomic bombs and later for nuclear reactors. It will take much longer to take it down – about three years. The schedule calls for all demolition to be complete by the end of 2011.

Getting to this point hasn't been as simple as just removing the equipment and knocking the building down. The structure and equipment had to be decontaminated to make it as safe as possible for workers and the environment when

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The Advocate is a publication of the Oak Ridge Site Specific Advisory Board (ORSSAB)—an independent, nonpartisan, volunteer citizens panel providing recommendations and advice to DOE's Environmental Management Program

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K-25 Building Demolition & Preservation

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was seriously injured. That incident caused a complete rethinking of how K-25 would be demolished.

Between July and November 2007 a number of meetings were held with the signatories of the MOA, including Bechtel Jacobs, Co., and the Partnership for K-25 Preservation (PKP), to discuss ways to preserve at least part of the North Tower. PKP came up with several options to keep the tower and lower the cost of preservation.

In November 2007 Steve McCracken, DOE Oak Ridge Assistant Manager for Environmental Management, approached the Oak Ridge Site Specific Advisory Board for input on how best to preserve the historic significance of K-25. In February 2008 the board co-sponsored a public meeting with the Local Oversight

Committee to gather public input on K-25. However, there was a minority opinion by four board members who felt the building wasn't worth saving and that some alternate means of memorializing K-25 should be done, such as a separate interpretive center.

In October 2008 McCracken told the board that in his opinion it is no longer feasible to save the North Tower because of its condition, but he also stressed that steps should be taken to commemorate the building's significance. McCracken has said he must advise Bechtel Jacobs by the end of March 2009 whether to leave the North Tower or take it down.

A few weeks before demolition of K-25 began on December 16, PKP presented several other options to McCracken to consider, one of which is to build an interpretive center on the

south end of the site. The plan calls for construction of a 45,000-square-foot history center that would include a theater, a timeline wall, and one process equipment 'stage' from K-25 that includes a converter, compressors, and motors used to enrich uranium. The

former footprint of K-25 would be marked with lights to show the size of the building. Visitors could go up in a war-time-era guard tower, about 65 feet tall, to view the footprint.

PKP estimates it would cost DOE about \$15.7 million to make this idea a reality. The group estimates about

65,000 visitors a year, generating approximately \$650,000 in income, with expenses at about \$600,000.

This preferred option from PKP, known as Option K, is somewhat similar to the suggestion made by the board members who wrote the minority opinion on preserving K-25. They suggested constructing a modern interpretive center along with marking the footprint of K-25 and restoring the Portal 4 guard house.

The board's Stewardship Committee received a briefing on Option K at its December meeting and decided to provide that information to the board members who wrote the minority opinion since it is similar to what they suggested. They will study the option and determine if their minority opinion might be reconfigured as a full recommendation for the board to consider sending to McCracken.



ORSSAB members David Martin and Sondra Sarten, along with student representative Claire Campbell (left) joined more than 100 other people on December 16 to watch the start of K-25 Building demolition.

Committee to gather public input on K-25. The overwhelming majority of those who attended the meeting and completed surveys supported preserving the North Tower, and as a result of the meeting the board sent a recommendation to DOE asking that the North Tower be saved.

Snapshots in Oak Ridge Cleanup History

10 years ago...

In February 1999 ORSSAB formed the Stewardship Working Group with the goal of ensuring that DOE develops a long-term stewardship program for contaminated areas on the Oak Ridge Reservation.

In December 1999 the group published the "Stakeholder Report on Stewardship, Vol. 2," that included 15 recommendations to DOE for establishing a long-term stewardship plan for the reservation. The first "Stakeholder Report on Stewardship" was published by the End Use Working Group in July 1998.

Oak Ridge Groundwater Plumes Described

While final decisions about how to address contaminated groundwater at DOE's Oak Ridge Reservation are years away, tracking the site's nine plumes is a concern today for DOE's Director of the Office of Groundwater and Soil Remediation in Washington, Dr. Vince Adams.

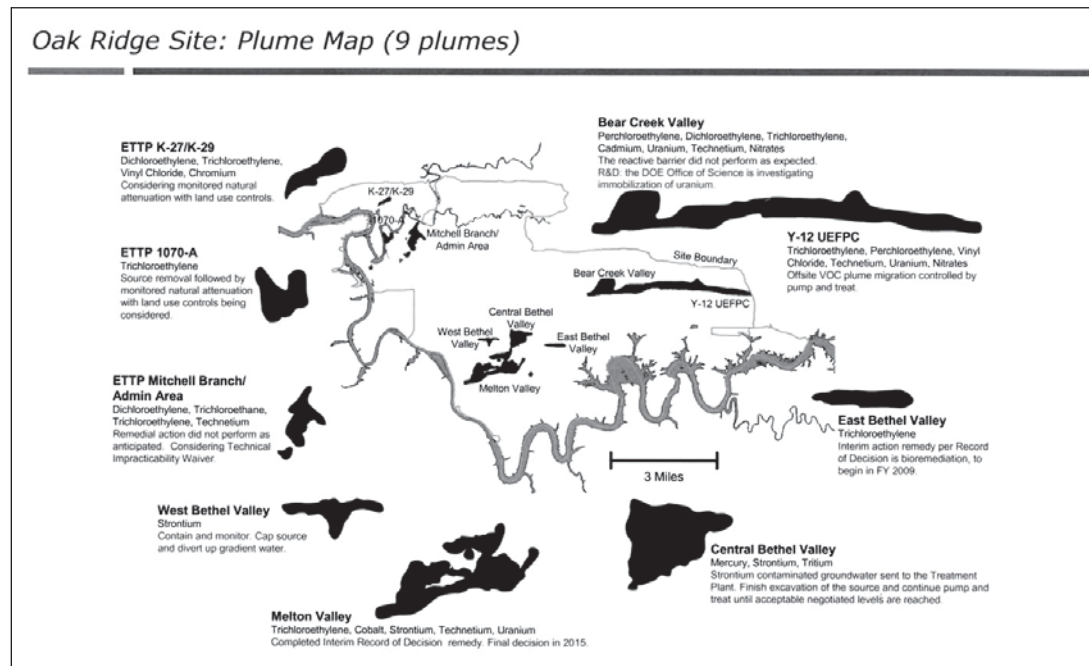
Before taking the post in Washington, Adams was a member of the Environ-

share with Congress and stakeholders. One such tool is a map/assessment/scorecard booklet describing contaminated groundwater plumes at each site, what is being done to remediate them, and the current status of each plume. Using a database of contaminants in plumes across the DOE complex, Dr. Adams' office is developing remediation strategies that can be used universally rather than employing vari-

Dave Adler of DOE-Oak Ridge added detail to Adams' presentation by addressing specifics of the Oak Ridge Reservation plumes. He said the Y-12 plumes in Upper East Fork Poplar Creek and Bear Creek Valley are within the Oak Ridge Reservation boundary and are not moving offsite. The eastern end of the Poplar Creek plume is right on the reservation boundary, and a system is in place to arrest it before

it leaves the site. Adler said groundwater use in the area is not allowed without permission. Both plumes are part of a long-term research project to immobilize uranium in the groundwater.

The East, West, and Central Bethel Valley plumes at Oak Ridge National Laboratory are being addressed through a network of interception systems designed to mitigate loading of contaminants in the source water. Adler said the systems will likely be used until the contamination sources are removed.



mental Management Program staff in Oak Ridge. ORSSAB asked him to make the trek from Washington to Oak Ridge to update in the board on what DOE is doing about groundwater here.

"Part of the mission of my office," Adams said at the board's monthly meeting on November 12, "is to apply state-of-the-art, cost-effective, and environmentally sound technical solutions to problems of groundwater and soil remediation. We're responsible for developing remediation tools, trying new remedial approaches, advancing predictive models, and implementing long-term monitoring."

One of his top priorities, he said, is developing communication tools to

ous techniques to clean up individual plumes with similar contaminants.

There are nine plumes on the Oak Ridge Reservation tainted by a number of contaminants. Only one, the Upper East Fork Poplar Creek Plume at Y-12, seems to be static or even shrinking, Adams says. All the others appear to be expanding. While there have been successes in treating some of the plumes, efforts in Bear Creek Valley and at the East Tennessee Technology Park/Mitchell Branch have not been as successful as hoped.

Adams' presentation is available on the SSAB website in the Nov. 12 meeting minutes section at www.oakridge.doe.gov/em/ssab/minutes.htm.

The series of plumes around the East Tennessee Technology Park is the subject of a groundwater treatability study being performed prior to approval of the sitewide decision to clean up soil and groundwater at the site. Adler said it will probably be a couple of years before a decision is made on how to handle these plumes.

According to Adler, none of the plumes present an imminent health threat. "There are plumes on site that have degraded groundwater so that it is not suitable for drinking water. Monitoring, use restrictions, source control measures, and in situ remediation techniques will have to be applied."

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Two Important Cleanup Program Meetings Planned for February and March

February: Public Meeting on Integration of New Projects Into the Federal Facility Agreement

Major changes in the scope of the DOE Oak Ridge Environmental Management Program are quickly taking place. After managing the program within the parameters set forth in its Accelerated Closure Program agreement with state and federal regulators, DOE is now shifting toward implementation of its Integrated Facility Disposition Project.

IFDP, as it is commonly known, takes all the unfinished projects in the current cleanup program scope and adds in over 200 more buildings and facilities to create a comprehensive (and theoretically complete) scope of work to finish the environmental cleanup job here. The work won't be easy, cheap, or quick to do, costing an estimated \$4 to \$8 billion and lasting 15 to 20 years.

Making IFDP a reality has involved securing approval from DOE headquarters and then obtaining agreement from the state of Tennessee and EPA to alter regulatory milestones contained in the Federal Facility Agreement (FFA) for the Oak Ridge Reservation (available on the Bechtel Jacobs website at www.bechteljacobs.com/ettp_ffa.shtml).

DOE announced in early December that a key step in the headquarters approval process had been achieved with sign-off on the Critical Decision-1 document for IFDP. DOE then informed ORSSAB that agreement had been reached with regulators to begin

restructuring cleanup program scope toward IFDP goals and integrate that work into the FFA.

Because the changes constitute a major modification to the FFA, a 30-day comment public period will be held to gather input from stakeholders once the revisions to the FFA are made in mid-January. As part of the agreement with regulators, a public meeting will be held sometime in February to inform the public about the changes to the work scope of the FFA and the time periods in which cleanup work will be performed. Both EPA and the state thought it was very important to have a public meeting so stakeholders will be aware of this important change in scope.

Planning for the meeting is underway, although a specific date and location have not yet been determined.

Information on the meeting will be made available in local newspapers and on the board's website at www.oakridge.doe.gov/em/ssab. Additional information about IFDP can be found there as well in the minutes and presentation from the board's May 14, 2008, meeting (www.oakridge.doe.gov/em/ssab/minutes.htm).

March: EM Budget & Prioritization Public Meeting

A public meeting on the DOE-Oak Ridge Environmental Management Program budget will be held at 6 p.m. on Wednesday, March 11, at the DOE Information Center, 475 Oak Ridge Turnpike, Oak Ridge.

The meeting, which is being cosponsored by DOE and the Oak Ridge Site Specific Advisory Board,

will provide an update on FY 2009 cleanup program funding, an overview of the FY 2010 president's budget and FY 2010 Oak Ridge Office priorities, and a first look at FY 2011 budget guidance and DOE priorities for FY 2011 budgets.

DOE will look to the public to provide input on the FY 2011 budget in early April. Oak Ridge typically submits its budget request to DOE-Headquarters later that month.

For more information about the meeting, call the Site Specific Advisory Board offices at (865) 241-4583 or 241-4584.

Groundwater Plumes

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Adler said contaminated groundwater in the Melton Valley plume is substantial. "A hydrologic isolation system was completed as part of the Melton Valley remediation project to eliminate continued degradation of groundwater," he said.

"One plume that has not undergone active remediation is the most southwest component of the Melton Valley plume that is headed toward the Clinch River," he said. "A network of wells is in place to determine the leading edge of the plume. The last set of wells has been reached, and an extended network of monitoring is being established to track it."

That plume has been the topic of discussion for ORSSAB in 2007. The board's Environmental Management and Stewardship committees will get a more detailed update on its status in early 2009.

Reservation Update

Pond Remediation Set to Begin at ETTP

Work is scheduled to begin in February on a project to remediate the K-1007-P1 Pond at East Tennessee Technology Park (ETTP). The fish in the 25-acre pond, located on the southwest corner of ETTP, are contaminated with PCBs.

The pond is currently the home of grass carp and gizzard shad, which are



bottom-feeders and tend to re-suspend contaminated sediment. PCBs accumulate in high levels in the shad, which are a favorite prey of large-mouth bass in the pond. The bass, in turn, could be consumed by humans.

In March 2007 an action memorandum was signed by DOE to conduct a non-time-critical removal action to mitigate PCB contamination in the fish and restore the pond to a more natural condition. The project will take a year.

Restoration steps include drawing down the pond, removing the shad and carp, and reintroducing bluegill fish, which are not bottom feeders. Some clean fill will be added on top of the contaminated sediment, and vegetation will be planted in and around the pond to limit sediment re-suspension and erosion. High-growing vegetation will be planted to discourage geese from congregating in the area. Geese cause high nutrient loading in the pond that promotes algae growth in the water.

First Shipment of TRU Sent to New Mexico for Disposal

A long-awaited milestone was reached on September 24, 2008, when the first shipment of contact-handled transuranic (TRU) waste left the Oak Ridge Reservation bound for the Waste Isolation Pilot Plant in New Mexico. The waste consisted basically of contaminated trash, such as tools, glassware, clothing, and other debris.

The waste was put in three large containers and loaded on a flatbed truck. The truck, driven by two specially-trained drivers taking turns behind the wheel, arrived

safely at its destination after 31 hours and 1,300 miles. The shipment was the first of hundreds expected to continue through 2013.

In addition to the contact-handled TRU, DOE's TRU Waste Processing Center is preparing the more dangerous remote-handled TRU waste for disposition in New Mexico. The first shipment of that waste is not expected until late February or March 2009.

Demolition of Building K-1401 Complete

DOE has finished demolition of the K-1401 Building at ETTP, paving the way for future industrial use at the site. The 500,000-square-foot building was originally used to recondition equipment for the uranium enrichment processes at the former K-25 Gaseous Diffusion Plant. It was later used as the maintenance shop for the whole plant.

About 50 million pounds of debris from the building were sent to the Environmental Management Program's

Waste Management Facility in Bear Creek Valley. The building's concrete base was broken up and used as back-fill for the basement. The site will be transferred to the Community Reuse Organization of East Tennessee for possible reuse by private industry.

Perma-Fix Receives Approval to Burn PCBs

Perma-Fix Environmental has received approval from EPA to incinerate PCBs at its Diversified Scientific Services, Inc., facility in Roane County near the Oak Ridge Reservation. Treatment could begin as early as February according to Larry McNamara, Perma-Fix's chief operating officer.

Perma-Fix hopes to take on some of the waste streams that are currently going to DOE's Toxic Substances Control Act Incinerator, which is scheduled for shutdown in May. DOE's incinerator burns mixed wastes, hazardous chemicals, and radioactive elements. Its specialty is incinerating PCBs.

Perma-Fix Barred from Shipping Waste to the Nevada Test Site

In September a small amount of radioactive contamination was detected on a box of waste sent from Perma-Fix's M&EC facility in Oak Ridge to the Nevada Test Site. As a result, DOE has barred Perma-Fix from shipping any more waste to Nevada for disposal. Problems were also found with a shipment of waste to Nevada from Richland, Wash.

The Oak Ridge container was returned to M&EC for storage until the problems are worked out. The contamination apparently resulted from condensation that seeped through caulking used to seal the container of debris. The company is investigating the incident and hopes to receive an OK from DOE to resume shipping.

New SSAB Forms at DOE's Portsmouth Site

The newest arm of the DOE Environmental Management Site Specific Advisory Board (SSAB) held its first public meeting in August 2008. Formed to provide advice

and recommendations on cleanup issues at DOE's Portsmouth Gaseous Diffusion Plant, the Portsmouth

SSAB has 20 members from five counties located in Ohio and Kentucky, and will address issues pertaining to groundwater, decontamination and decommissioning, and public participation. The board meets on the first Thursday of the month at the Ohio State University Endeavor Center in Piketon, Ohio.



The Portsmouth Gaseous Diffusion Plant, located in Piketon, Ohio, began operations in 1954 as part of a U.S. government expansion program for the production of highly enriched uranium to fuel military reactors and nuclear weapons production. The plant is owned by DOE but leased and operated by the United States Enrichment Corporation, a wholly owned subsidiary of USEC, Inc.

For additional information about the Portsmouth SSAB, see the board's Internet website at www.ports-ssab.org/index.htm.



Portsmouth SSAB co-chairs Val Francis and Richard Snyder attended the September 2008 SSAB chairs meeting in Washington, D.C.

The board is being led by co-chairs Val Francis and Richard Snyder. Francis is a real estate appraiser and business owner in Waverly, Ohio. Snyder is retired and has extensive experience in the nuclear sector from the Hanford site in Washington state and with the Portsmouth environmental restoration and centrifuge projects. The membership is very diverse and includes businessmen, teachers, retirees, a welder, a school administrator, a nurse assistant, and a mayor.

A professional facilitator will work with the group, but so far no full-time board administrator has been named. Interim support is provided by the SSAB staff in Paducah, Ky.

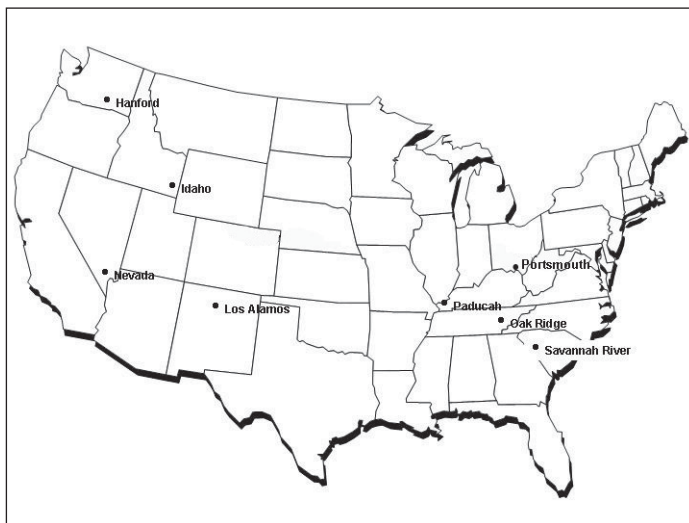
The board held a retreat in late October at Shawnee State Lodge Resort to develop its work plan for FY 2009 activities and to establish committees. So far, four have been set up: Environmental Remediation, Waste Management, Decontamination & Decommissioning, and Future Land Use.

How Many SSABs Are There?

SSABs (called Citizens Advisory Boards at many sites) were developed to involve stakeholders more directly in DOE cleanup decisions. Under the Federal Advisory Committee Act, DOE has one Environmental Management SSAB, and local boards are chartered under that umbrella. Eight local site boards are currently active:

- Hanford, Washington
- Idaho Falls, Idaho
- Las Vegas, Nevada
- Los Alamos, New Mexico
- Oak Ridge, Tennessee
- Paducah, Kentucky
- Portsmouth, Ohio
- Savannah River Site, Georgia

Five SSABs have disbanded over the years following completion of cleanup activities at their sites or for other reasons. These sites are the Pantex Plant in Texas, the Fernald site in Ohio, Monticello in Utah, Rocky Flats in Colorado, and Sandia National Laboratory in New Mexico.



Member News

Darrell Akins Joins ORSSAB



Darrell Akins, of AkinsCrisp Public Strategies, was appointed to ORSSAB in September, bringing the board to its full contin-

gent of 20 voting members.

“Darrell has a wealth of experience to offer based on his years of public service,” said Gerald Boyd, Manager of DOE’s Oak Ridge Office. “We thank him for his willingness to serve and contribute toward the Oak Ridge Office’s continuing progress in environmental cleanup on the Oak Ridge Reservation.”

A U.S. Army veteran, Akins began his professional career on the staff of Knoxville Mayor Kyle Testerman and then became vice president of the Bank of Maryville. In 1979 he joined the administration of Gov. Lamar Alexander as Deputy Commissioner of Human Services and then as Deputy Commissioner of Transportation. At 31 he became the youngest member of the governor’s cabinet as Commissioner of Personnel.

He founded AkinsCrisp in 1989, which has grown to include offices in Oak Ridge; Nashville; Huntsville, Ala.; and Washington, D.C.

Akins is a lifetime member of the Florence Crittenton Agency of Knoxville and was named Southeast U.S. Volunteer of the Year by the Child Welfare League of America. He currently chairs the Roane County United Way, is vice chair for government relations for the Oak Ridge Chamber of Commerce, and is on the boards of

Tech 2020, East Tennessee Economic Council, United Way of Greater Knoxville, and the Anderson/Roane County Advisory Board of SunTrust Bank.

He was the chief executive officer of the Greater Knoxville Chamber of Commerce, where he organized efforts to achieve regional cooperation in economic development in the Knoxville-Oak Ridge region. He and wife Deborah live in Oak Ridge.

Dixon Elected Louisville City Alderman



Steve Dixon, ORSSAB chair, was elected as a Louisville City Alderman during the November elections.

Two at-large seats were open with three candidates in the running. Of those who voted, 87 percent voted for Dixon.

“Louisville is a rapidly growing community, probably the fastest growing area in Blount County,” said Dixon. “During the year there were a tremendous number of applications for building permits. I became concerned that the city didn’t have the infrastructure to handle all of that development. With my experience in planning and public finance and development, I believed I had the qualifications for the job.”

So did Louisville voters. Congratulations, Steve!

Students Get Inside Look at DOE’s Cleanup Program

ORSSAB members and DOE Oak Ridge took almost 100 students and their teachers from Oak Ridge High School to tour parts of the Oak Ridge Reservation in October.

The tour was led by ORSSAB member Tim Myrick and DOE’s liaison to the board, Dave Adler. Myrick volunteers one day a week at Oak Ridge High School assisting in the environmental science classes. “This was a great opportunity for the kids to see in person what we discuss in class about cleaning up contaminated areas of the reservation.”

ORSSAB participants also included board member Maggie Owen and the board’s current student representatives, Claire Campbell and Miranda Clower.

ORSSAB has a long history of working with high school students, going back to 1999 when it appointed its first student to the board. Two students are now seated on the board each year. One is always from Oak Ridge High School while the other is chosen from area high schools on a rotating basis.



ORSSAB member Tim Myrick points out a tour stop to Claire Campbell (left), fellow board member Maggie Owen, and Miranda Clower (right). Claire and Miranda are student representatives to the board.

Recent Recommendations & Comments

Recommendation on the Integrated Facility Disposition Project

Even though a building is targeted for demolition by DOE, it shouldn't be allowed to deteriorate to the point that it's a hazard when the time comes for its destruction.

That's one part of a recommendation on the Integrated Facility Disposition Project (IFDP) ORSSAB sent to the DOE Oak Ridge Environmental Management Program in October.

IFDP is a plan to integrate the existing cleanup program scope with an additional 200-plus outdated and unneeded facilities at Oak Ridge National Laboratory and the Y-12 National Security Complex. The Critical Decision-1 document that establishes preliminary cost estimates and schedule ranges for the project was

approved by DOE Headquarters in November (see story on page 3).

While ORSSAB endorses the project, the board wants to make sure that the situation the Environmental Management Program is currently dealing with at the K-25 Building at the East Tennessee Technology Park isn't repeated. Since operations ceased at K-25 in 1964, the building's structural integrity has declined to the point that dismantling it has become extremely dangerous, time-consuming, and costly.

In its recommendation the board said that budgets should be adequate to conduct surveillance and maintenance of facilities to prevent deterioration to unsafe conditions.

"It's been said that millions would have been spent on surveillance and maintenance of K-25 over the years, yet we've spent millions because we

didn't," observed board member Kevin Westervelt during debate on the recommendation.

The board also recommended that historic preservation be part of IFDP planning so that important historical artifacts associated with past operations can be saved.

Complete text of this and all ORSSAB recommendations can be found on the board's website at www.oakridge.doe.gov/em/ssab.

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or email us at osbornepl@oro.doe.gov.

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JOIN US FOR OUR NEXT PUBLIC MEETINGS

Board Meetings

- Jan. 14, 6:00 pm – Presentation on footprint reduction under the potential government stimulus package
- Feb. 11, 6:00 pm – Presentation on the 2007 Annual Site Environmental Report

Committee Meetings

- Jan. 20, 5:30 pm – Stewardship
- Jan. 21, 5:30 pm – Environmental Mgmt.
- Feb. 17, 5:30 pm – Stewardship
- Feb. 18, 5:30 pm – Environmental Mgmt.