

DOE Issues ‘Final Memorandum of Agreement for Historical Preservation Properties at ETTP’

Those responsible for the fate of the K-25 Building North Tower were back at the table in May to discuss a new twist on the ongoing saga of the historic old structure.

In November 2011 the signatory and consulting parties to a 2005 memorandum of agreement (MOA) on K-25 convened to discuss a new MOA to commemorate the historic significance of K-25. The original 2005 MOA called for saving the North Tower of the building and renovating it for use as a historic site. But later the Department of Energy (DOE) determined the structure was too far gone to save and asked for options.

In February 2012 a new MOA was issued as a result of the November 2011 meeting that called for tearing down the North Tower, establishing a history center on K-25 at the fire station at East Tennessee Technology Park (ETTP),

providing \$350,000 in seed money to buy and renovate the Alexander Inn near Jackson Square in Oak Ridge, and providing a number of other elements to interpret the history of K-25.

But when the new MOA was issued the Advisory Council on Historic Preservation, one of the signatory parties, asked the National Park Service (NPS) to review the document and provide input. The park service did that and came up with three scenarios for K-25, two of which called for saving a portion of the North Tower. This new wrinkle caused DOE to convene another meeting of the signatory and consulting parties to discuss the options.

So on May 17 everyone met again to review DOE’s February proposed MOA and the NPS ideas for interpreting K-25’s history. The NPS suggested three concepts:

Issue 47 • July 2012

IN THIS ISSUE

Departing Members	3
Wild West Tour.....	4
Student News.....	5
EM SSAB Chairs’ Meeting.....	6
Reservation Update	7
Recommendations.....	8

Concept A

- retain two complete process cells (a cell consists of six ‘stages’ that includes two compressors, a converter, and associated piping and valves);
- retain the exterior walls of the North Tower and all levels;
- construct a new entrance and exhibits building adjacent to the North Tower; build an observation deck that would look out over the original footprint of K-25.

Concept B

- build a replica structure of the North Tower that would include two original cells;
- the replica would be only three floors instead of the original building’s four;
- build an observation deck that would look out over the original footprint of K-25.

Concept C

- retain the original walls and two process cells;
- construct a new entrance and exhibits building within the



A floor plan of Concept B, which would be a replica of the North Tower of the K-25 Building.

(Continued on page 2)

'Final' MOA on K-25 at East Tennessee Technology Park

(Continued from page 1)

original footprint of the North Tower;

- build an observation deck that would look out over the original footprint of K-25 (this deck would be within the walls of the building).

In making the NPS presentation Jeff Durbin said properly interpreting K-25 was "obviously challenging, but NPS felt the North Tower represented a significant portion of K-25."

Of the three concepts NPS preferred either A or C, saying a replica did not have the same historical impact as an original structure. But when DOE's Dave Adler reviewed the relative costs of all the options, Concepts A and C were estimated to be \$28 million and \$62 million respectively, while Concept B came in at about \$15 million.

Adler said DOE's February MOA proposal would cost about \$9 million. If DOE implemented actions suggested by some of the consulting parties to construct an equipment building that had a process cell display, add some Cold War artifacts, and increase preservation funds for the Alexander Inn, the cost would be about \$11 million.

Ken Rueter with UCOR, DOE's Oak Ridge prime cleanup contractor, presented some figures that included building a replica piece of K-25, a history center, process displays, viewing tower, a 'virtual museum,' providing \$500,000 to help buy and renovate the Alexander Inn, and some other incidental costs that totaled about \$15.3 million.

Since NPS's Concept B replica would be only three stories, some of the consulting parties to the MOA lobbied for including a fourth story that would be a more accurate representation of

the original building. When asked how much that would add to the cost Rueter said it would be in the \$500,000 to \$1 million range.

As with the November 2011 meeting there was no clear consensus among the group but there seemed to be considerable interest in NPS's Concept B, if DOE would agree to that plus what it had proposed to do at the November meeting.

One month after the meeting DOE issued its "Final Memorandum of Agreement for Historical Properties at ETTP."

The plan calls for implementing much of what was discussed at the

tower would be built near the K-25 History Center housed on the second floor of the fire station at ETTP.

The History Center would include exhibits of authentic equipment, artifacts, and other media such as oral histories, film, video, and access to a K-25 Virtual Museum. The virtual museum would provide web-based access to multi-media opportunities for viewing, learning, and researching K-25, the Manhattan Project, and the Cold War.


DOE offers to provide \$500,000 for the purchase and stabilization of the Alexander Inn. That grant is predicated on the condition that sale of the building will include a historic preservation easement to protect the building and its historic value.

Other points of the MOA provide for a museum professional to design exhibits for the Equipment Building, the History Center, and 12 low-profile exhibits that will be placed throughout the ETTP site.

An evaluation will be made to determine if the concrete slab on which K-25 was built can be left in place to show the K-25 footprint.

The estimated cost to implement the MOA comes to \$17.5 million, plus \$3 million that has already

been spent on mitigation measures, bringing the total cost to interpret K-25's history to about \$20.5 million.

"We are cautiously optimistic that we will get the MOA signed by the signatory parties in time not to adversely impact the remaining demolition of K-25," said Sue Cange, DOE Oak Ridge Acting Manager for Environmental Management. "The deadline for having an MOA so there is no impact to the demolition project is the end of July." 



Artist rendition of the cell floor in the Concept B or 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 cells using as much authentic equipment as possible.

November meeting, including construction of an Equipment Building the same height of the original building with three stories and a basement. It would recreate a scale version of the gaseous diffusion technology using authentic equipment as much as possible. The exhibit would consist of two operating cells, operating floor equipment, and other Cold War equipment.

Other major points of the MOA call for building a viewing tower tall enough so a visitor can see the size of the original K-25 U-shaped footprint. The

ORSSAB and DOE Say 'Thank You!' to Outgoing Board Members

ORSSAB lost a ton of institutional knowledge at its June meeting with the retirement of five long-time members.

Betty Jones, Ed Juarez, Gloria Mei, Ron Murphree, and Steve Stow rotated off the board in June taking 26 years of combined board experience with them.

"These individuals have served in a wide variety of leadership positions, both at the board level and committee level," said Susan Cange, ORSSAB's Deputy Designated Federal Officer. Cange presented them plaques in recognition of their service.

"They represent the best of selfless dedication to their communities.

"They've been instrumental in every aspect of the board's work from drafting recommendations, helping expand the board's outreach program, representing the board at national conferences, and spending endless hours attending meetings and providing leadership."

Betty joined the board in July 2008 and at various times served as the chair of the Public Outreach Committee, and participated on

Environmental Management (EM), Stewardship, and Board Finance & Process committees. She decided not to seek reappointment

after two two-year terms. "I would like to thank ORSSAB for the opportunity to serve on the board. I have gained additional knowledge about DOE's EM program. As a board member, and by serving on the Board Finance & Process Committee, the EM Committee, Public Outreach, and finally Stewardship, I was able to look at the different committees. I learned how the committees interacted to serve a common goal in making the public aware of DOE's commitment in cleaning up the environment."



Betty Jones

Ed is also a two-termer who decided not to seek reappointment. He plans to spend more time with another organization, Horse Haven, a group that cares for abused and neglected horses.

During FY 2012 he served as the board's vice chair and was board secretary for two years prior to that.

He has also been chair of the Board Finance & Process Committee. "I have enjoyed my time serving on the board. I have made some good friends and have met some very interesting and bright people. I have found that you don't have to be an expert in what is happening on site, but that you have an inquiring mind and are willing to learn," he said.

"I have been on the board four years and in a leadership position one way or another all four years. As chair of the Finance & Process Committee I learned the budgeting process and its difficulties. As secretary I learned the importance of process and rules and keeping accurate records, and as vice chair I learned that you must be prepared to step in at a moment's notice. One thing that I'm happy about is the student involvement program. It means a lot to the students and the board members."

Gloria was appointed to the board late in 2005 to replace a member who resigned and was still able to serve a full six years. She's been a



Ed Juarez

member of the EM Committee the entire time. "The board surely has evolved and changed the last few years," she said, "but the basic mission has always been to provide a strong public voice in the Oak Ridge Reservation (ORR) cleanup decisions. We regularly monitor the progress of ORR EM projects, ask questions, and make recommendations. I have served as the issue manager for a variety of EM Committee agenda items. Often this would involve quite some efforts in information gathering, digestion, and discussions. I was very happy and privileged to have participated and to be part of the change for the ORR."

Ron has been one of the most active members ever. He chaired the board for two years, chaired the EM Committee



Ron Murphree

two years, has been vice chair of the Stewardship Committee, and has participated on the EM Budget & Prioritization Committee. He's also

attended a number of conferences and EM SSAB Chairs' meetings.

"Serving on ORSSAB has been a very rewarding experience. Make no mistake, to be an effective board member, you have to dedicate some time and effort to study the complex issues and participate in the dialog between the board and the various agencies. But the effort is well worth it, and I have received much more than I ever hoped for. I was given the opportunity to serve in leadership positions, supported by a dedicated staff and assisted by some very smart folks who care very much about the environment and the taxpayers' money. I had the opportunity to travel to other sites and attend conferences presented



Gloria Mei

(Continued on page 4)

ORSSAB Says Farewell to Retiring Members

(Continued from page 3)

by DOE EM senior leadership and other cleanup industry executives.

"I always viewed service on the board as just that – we serve on the board to provide real input and guidance to DOE on EM issues. Our duty is not to be taken lightly or without devoting the thoughtful consideration that these matters require."

Steve brought a lot of background knowledge about the ORR when he came on the board in June 2006 after retiring as manager of the American Museum of Science and Energy. He put that background to good use in launching the effort to consolidate and collect oral histories of former scientists, executives, and workers from the Manhattan Project and Cold War era. Through the board he was instrumental

in helping to establish the Center for Oak Ridge Oral History. He also served on the Public Outreach Committee and chaired the Stewardship Committee.




Steve Stow

to truly make a difference, often in small but significant ways, but also in larger ways.

"Serving on the board has been an opportunity to not only meet superb individuals with whom I would never otherwise cross paths, but also an opportunity

"The ability to influence projects as massive and far-reaching as those of the EM organization is unique, and the responsiveness of DOE EM is a pleasant surprise for those of us who have devoted the time and effort. Also the fact that EM can undertake important challenges not directly germane to its mission (oral history activity and other historic preservation efforts) – and do this seriously – for the community is a welcome surprise."

All of these individuals will be greatly missed, but a new class of board members is scheduled to take their seats at the July meeting and begin learning the issues and taking up where these folks have left off. 

ORSSAB Members Tour 'Wild West Waste' Areas


In March ORSSAB members Maggie Owen, David Hemelright, Fay Martin, David Martin, and Gloria Mei took a 'wild west' tour of locations in Nevada and New Mexico that accept and dispose of waste from Oak Ridge.

The group visited the Nevada National Security Site that accepts low-level and mixed low-level waste. Waste containers are placed in disposal cells, covered with 4 feet of soil to grade, and then covered with another 4 feet above

grade to form a mound over the cell.

While there the group visited a number of historically significant sites related to above- and below-ground testing of nuclear devices from 1951 to 1992, including the control room that was the nerve center for many of the tests.

While in Nevada the travelers were guests at the Nevada Site Specific Advisory Board meeting where the discussion centered around receiving uranium-233 waste, some of which comes from Oak Ridge, and on safe transfer of waste to the site. Most of the main roads of transfer go through or near Las Vegas.

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 has sent, and will send again next year, both contact- and remote-handled waste to Carlsbad. 



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

ORSSAB Student Members Complete Terms in April

ORSSAB and DOE Oak Ridge recognized the board's outgoing student representatives Kasey McMaster and Amira Sakalla at the April board meeting.

"This is one of the best things this board does – bring in students from the local high schools," said DOE liaison to the board Dave Adler, who presented plaques on behalf of DOE and ORSSAB. "I want to thank both of you for serving and participating in the board's activities."

Both Amira and Kasey were members of the board's EM Committee. Amira also served on the Public Outreach Committee and helped set up the board's Facebook site. "I've really enjoyed my time on ORSSAB. It gave me a taste of how decisions and planning are carried out

in the real world," said Amira, who graduated this spring from Hardin Val-

ley Academy. "It's a gradual process that requires patience, but results in great progress. I plan on going into health care as a pediatrician, and the ORSSAB has helped me make connections between two seemingly unrelated fields. People often focus on how environmen-

tal issues affect the earth and overlook how these issues affect humans and their health."
"My experience on the board was extremely interesting and enriching," said Kasey, graduating from Oak Ridge High School. "I learned about so many new things involving the environmental wellbeing of the ORR I probably would never have known about had I not taken the opportunity to be a student representative. I am thankful that I was given the chance to participate on the board!"



ORSSAB's DOE liaison Dave Adler presented plaques to student representatives Kasey McMaster, left, and Amira Sakalla in appreciation for their service as students representatives to the board during 2011-12.

tal issues affect the earth and overlook how these issues affect humans and their health."
"My experience on the board was extremely interesting and enriching," said Kasey, graduating from Oak Ridge High School. "I learned about so many new things involving the environmental wellbeing of the ORR I probably would never have known about had I not taken the opportunity to be a student representative. I am thankful that I was given the chance to participate on the board!"

Hardin Valley Academy Senior New Student Representative

Sam Yahr was introduced as a new student representative to ORSSAB at the May board meeting. Sam is a rising senior at Hardin Valley Academy, where he is a member of both the National Honor Society and the National Society of High School Scholars.



He volunteers as a Sunday School teacher, is a participant in the World Changers organization, and plays in the youth worship band at his church. Sam plans to attend the University of Tennessee after graduation and major in chemical engineering.



Former ORSSAB member Tim Myrick works with a student during a recent visit to Oak Ridge High School.

Former Member Still Works With Students

Former ORSSAB member Tim Myrick was a mentor to the board's student representatives during his time on the board in the mid to late 2000s. And he still enjoys helping out the board by giving presentations to advanced placement science classes at Oak Ridge High School and Hardin Valley Academy.

This spring he visited the schools and talked to students about some of the projects DOE has tackled in Oak Ridge over the years. During his interactive presentation, the students were given the options that were considered, then they try to determine what solution DOE chose.

To add your name to or remove it from our mailing list, or to advise us of an address change, call the ORSSAB Support Office at (865) 241-4583 or 241-4584. Web address: www.oakridge.doe.gov/em/ssab.

EM SSAB Chairs Meet in Paducah, Ky.

Twice each year the leadership of the eight boards that make up the national EM Site Specific Advisory Board (EM SSAB) gather to hear presentations on topics of common interest and to share issues and concerns at the various sites.

The spring 2012 meeting in April was hosted by the Paducah Citizens Advisory Board.



ORSSAB Vice Chair Ed Juarez (middle) and board member Dave Hemelright (left) listen to a presentation at the EM SSAB Chairs' meeting in Paducah, Ky.

Attending for ORSSAB were board Vice Chair Ed Juarez and members Dave Hemelright and David Martin.

The first speaker was David Huizenga, DOE Senior Advisor for EM. He said the national EM budget was likely to be reduced about \$100 million from \$5.6 to \$5.5 billion. The budget in 2008 was \$6 billion. He said planning needs to begin on how to handle a rampdown of allocations to all sites.

He talked about the disposition of nickel across the complex, much of which is stored in Oak Ridge. His department is trying to find a way to clean up contaminated nickel so it can be recycled for wider use rather than in a restricted arena.

The next speaker was Terry Tyborowski with the EM Budget Office. She confirmed Huizenga's assessment of reduced budget allocations, although her prognosis

was actually a bit gloomier. She said the recent House of Representatives 'mark' was \$5.44 billion, although she said the Senate tends to be a little more generous. DOE EM had requested \$5.65 billion, \$421 million of which was earmarked for Oak Ridge. That is considerably less than what was requested for the Savannah River Site, Hanford, Washington, and the Office of River Protection for the Columbia River at Hanford.

She said there will likely be a continuing resolution on the FY 2013 budget, meaning the government will have to operate at FY 2012 budget levels until the new budget is passed by Congress. The expectation is a 10 percent cut across the board for FY 2013, confirming again

what Huizenga said. She, too, said sites will have to determine how to handle a 10 percent reduction in budgets.

The next speaker was Frank Marcinowski, Deputy Assistant Secretary for Waste Management. He provided information on program accomplishments, FY 2012 and 2013 waste management priorities, strategic goals related to waste disposition, and the asset revitalization initiative.

He said DOE EM expects to meet 100 percent of its 180 enforceable milestones in FY 2012. Based on the President's budget request, EM also expects to meet all of its 120 enforceable milestones for 2013.

Marcinowski ran down a long list of long-term priorities, only a few of which were directly related to the ORR:

- Optimize transuranic waste shipments to the Waste Isolation Pilot Plant in New Mexico.

- Ship uranium-233 material to Nevada for storage and future programmatic use; complete planning to support the direct disposal campaign of U-233 Consolidated Edison Uranium Solidification Program (CEUSP) material in the future; and, develop Phase 2 processing strategy for the balance of U-233 inventory.

FY 2013 priorities had these Oak Ridge related items:

- Begin shipments of U-233 CEUSP material to Nevada.
- Continue Phase 2 planning for U-233 processing.
- Design a sludge processing facility at the Oak Ridge Transuranic Waste Processing Center.

The second day of the meeting was dedicated to discussion among the boards about public involvement and formulating two recommendations to DOE. One recommendation on continued funding of the EM SSAB was agreed upon fairly easily. A second



DOE Senior Advisor for EM David Huizenga fields questions at the Chairs' meeting.

recommendation on the EM budget request proved to be more difficult and will be worked out among the chairs via email and chairs' teleconferences.

The next meeting will be October 2-3 in Washington, D.C. 

Reservation Update

New Manager Named for Oak Ridge EM Program

DOE EM Headquarters announced in May that Mark Whitney has been selected to take over as manager of the Oak Ridge EM program, effective August 2012.

“Mark is an engaging leader with a broad understanding of DOE-wide programs and policies and has a history of proven success developing and implementing strategies to improve organizational performance,” said David Huizenga, Senior Advisor for EM. “I am pleased Mark has agreed to take on this important role and devote his talents to the nuclear waste cleanup mission in his home state of Tennessee.”



Whitney has served as the Acting Principal Assistant Deputy Administrator for Defense Nuclear Nonproliferation at the DOE National Nuclear Security Administration since July 2011, overseeing the day-to-day operations of a \$2.3 billion nuclear security and nonproliferation program. He has been a member of the U.S. Government's Senior Executive Service since 2005, serving in various positions at DOE headquarters and internationally.

Reorganization of DOE Oak Ridge Office Becomes Reality

On June 11, Secretary of Energy Steven Chu announced the implementation of the Oak Ridge Office reorganization. The reorganization was initially approved in August 2011, and negotiations began soon after with the Office of Professional Employees International Union concerning the reorganization. A final Memorandum of Understanding was signed on May 10, 2012.

Under the new alignment, the Oak Ridge National Laboratory Site Office Manager reports to the Deputy Director for Field Operations within the Office of Science; the Nuclear Energy Site Office Manager reports to the Deputy Assistant Secretary for Nuclear Facility Operations within the Office of Nuclear Energy; and the EM Site Office Manager reports to the Principal Deputy Assistant Secretary for EM.

The Oak Ridge Office Manager remains a direct report to the Office of Science and retains responsibility for the ORR and is DOE's representative to the community.

Public Health Assessment Issued on Mercury Releases

The Agency for Toxic Substances and Disease Registry (ATSDR) has released its “Public Health Assessment of Y-12 Mercury Releases at the DOE Oak Ridge Reservation.”

The assessment evaluates past (1950–1990) and current (1990–2009) exposure to mercury released from Y-12 National Security Complex to determine whether exposure-related health effects were possible in off-site residents.

The study concludes that most past and current exposure pathways are not a public health hazard. It does, however, identify a few potential concerns, particularly for children in the past:

- Young children who may have inhaled elemental mercury carried from the Y-12 plant by workers into their homes may have been impacted.
- An increased risk of developing kidney health effects is possible for children who swallowed water while playing in East Fork Poplar Creek during some weeks from 1956 to 1958 and adults who incidentally swallowed water during some weeks in 1958, as well as children who swallowed soil while

playing in two areas along the floodplain before the removal of mercury-contaminated soil in 1996 and 1997.

- Children born to or nursing from women who ate fish from waterways near the reservation may have a small increased risk of developing subtle neurodevelopmental health effects from exposure to organic mercury.


Due to a lack of information, ATSDR could not determine whether people living off site could have been harmed from breathing elemental mercury from 1950 through 1963, swallowing water containing inorganic mercury from the creek from 1953 to 1955, or eating fish containing mercury during the 1950s and 1960s.

Copies of the report are available at www.atsdr.cdc.gov or 1-800-232-4636.

DOE Offers Public Bus Tours Again This Summer

DOE's 2012 Oak Ridge facilities public bus tour program is now underway and continues through August 31. The tour offers visitors a first-hand look at DOE's Oak Ridge facilities and provides historical commentary on the transformation of the ORR during the past 65 years.

The reservation-wide tour includes stops at the New Hope Center at Y-12, Bethel Valley Church, the national historic landmark Graphite Reactor at Oak Ridge National Laboratory, and ETTP (formerly K-25).

Tours are available Monday-Friday and depart from the American Museum of Science and Energy, located at 300 South Tulane Avenue in Oak Ridge. Tours begin at noon and conclude at 3 p.m. For more information, call Lissa Clarke, AMSE, at (865) 576-3218 or DiAnn Fields, DOE, at (865) 576-0885, or visit www.amse.org. 

Recent Recommendations

Complete text of the following recommendations can be found on the ORSSAB website at www.oakridge.doe.gov/em/ssab/recc.htm

Recommendation on Fiscal Year 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 out. 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 the Environmental Protection Agency and the Tennessee Department of Environment and Conservation 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 Lab.

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

Chairs' Letter on Continued Funding of EM SSAB

At the EM SSAB Chairs' meeting in April (see page 6) 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 board meeting, ORSSAB members voted to endorse the letter and authorized Chair Maggie Owen to sign it. 



Oak Ridge Site Specific Advisory Board

P.O. Box 2001, MS-7604
Oak Ridge, Tennessee 37831

ABBREVIATIONS

DOE — Department of Energy
EM — Environmental Management
EM SSAB — EM Site Specific Advisory Board
ETTP — East Tennessee Technology Park
ORR — Oak Ridge Reservation
ORSSAB — Oak Ridge Site Specific Advisory Board

UPCOMING MEETINGS

All meetings are held at the DOE Information Center, 1 Science.gov Way, Oak Ridge, Tenn.

Board Meeting

July 11, 6:00 p.m.

Committee Meetings

July 17, 5:30 p.m. – Stewardship
July 18, 5:30 p.m. – Environmental Mgmt.
July 24, 5:30 p.m. – Public Outreach (teleconference)
July 26, 5:00 p.m. – Board Finance & Process
July 26, 5:30 p.m. – Executive