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ADVOCATE

ORSSAB Cohosts Public Meeting on K-25 Historic Preservation

The K-25 Building at East Tennessee Technology Park has been on many people's minds lately. Others have not only been thinking about

it, but developing ideas and plans on how best to preserve the story of the old structure.

From 1945 until 1964 the huge building produced uranium-235, first for the

early atomic bombs and later, for most of its working life, for the commercial nuclear power industry.

In 1987 all enrichment activities were stopped at the other plants on the site built after K-25. Plans were made to demolish K-25, as well as sister buildings, K-27 and K-29.

Recognizing the historical significance of K-25, the Department of Energy (DOE) agreed to retain the north tower, the part that formed the base of the U-shaped building and connected the two long legs.

In a 2005 memorandum of agreement (MOA) DOE agreed to retain the north tower and put a new roof on it. Housings for eight converters would remain. A number of motors and com-

pressors would remain for display. The upper 10 feet of the interior walls of the legs would be retained for possible use as a surface for murals. Indicators would be placed around the perimeter of the building to illustrate its size.

But even though DOE agreed to save the north tower and some of the associated equipment, it was going to be someone else's job to develop a meaningful depiction of why K-25 was built and how it operated. The Partnership for K-25 Preservation (PKP) took the task and developed a model for what K-25 would eventually look like, which included a museum inside the north tower.

From the time the MOA was signed to today the building has deteriorated more rapidly than anticipated, making the provisions in the MOA more difficult and expensive. In November 2007, Jack Howard, DOE project manager for K-25, told the signatories of the MOA about the challenges confronting DOE at K-25 and said serious consideration was needed about changing the stipulations in the MOA or perhaps simply demolishing the building.

Steve McCracken, DOE-Oak Ridge assistant manager for environmental management, approached the Oak Ridge Site Specific Advisory Board (ORSSAB) asking for advice on the fate of K-25. The ORSSAB Stewardship Committee was asked to study the issue. The Stewardship Committee, in turn, formed a subcommittee to study the various options. The subcommittee felt it would be helpful to hear what the public had to say about preserving K-25, so it sponsored a meeting, jointly with the Local Oversight Committee, to gather citizen input.

The meeting was held at the Y-12 New Hope Center on February 19. About 150 citizens



Over 150 people attended the public meeting on K-25 Building historic preservation sponsored by ORSSAB and the Local Oversight Committee on February 19 at the New Hope Center.

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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 Historic Preservation *continued from page 1*

attended to view exhibits and hear presentations by DOE, PKP, the American Museum of Science and Energy, and the Oak Ridge Convention and Visitors Bureau.



Many members of the community expressed their views on historic preservation at the public meeting.

“I want to impart to you DOE’s commitment to preserving the history of K-25,” said McCracken in opening comments. “The problem we’re faced with, and one of the reasons we’re here today, is trying to figure out whether we can do the work that is in the MOA safely and if we can afford it. We in DOE are here to listen to what you have to say.”

DOE’s presentation dealt with the current condition of the building. Howard said roof leakage has caused a number of problems, such as damaging the operations floor so that it is unsafe to walk on. Rain has also caused damage to supporting concrete beams. “When it rains, the building continues to leak about three days afterward,” he said. The building was constructed to wartime standards and doesn’t meet current building codes, according to Howard. He said it is not seismically qualified, and the electrical system is 60 years old.

Howard offered some alternatives to consider. One choice was to implement the MOA as originally agreed. He said the cost to implement the MOA as written would be about \$47.4 million.

Another option is to change the MOA to scale back the original provisions, including reducing the size of the mural walls, removing the operations floor, reducing the number of operating stages for display, and substituting other equipment for some that would be easier to decontaminate.

Another option is to demolish the north tower and replace it with an interpretive center that would include portions of the former structure and some equipment. The interpretive center could be located on site or at another location, such as at the American Museum of Science and Energy.

Howard did not have figures available for the two additional options.

Gordon Fee, retired president of Lockheed Martin Energy Systems, noted that while it was DOE’s responsibility to preserve some facilities, it was not DOE’s responsibility to create tourist attractions at those facilities. Fee said that while there were a number of challenges costing millions to create a tourist attraction involving the K-25 Building, those challenges are ‘trivial compared to building it.’

The final presenter was Bill Wilcox, co-chair of PKP, who discussed PKP’s preferred plan for K-25. The north tower would be re-roofed and then partitioned so that about 40 percent would be used for tourism purposes. That portion would include a museum, demonstration cells and operating equipment, and a gift shop. About 60 percent of the building

would not be used or be accessible to the public. DOE would only be responsible for saving the building, decontaminating it, and re-roofing it.

Following the presentations, members of the audience were allowed to ask questions and make comments. The overwhelming majority of comments were in support of saving the north tower. Attendees were also asked to fill out questionnaires that asked for input about saving the structure. Surveys could be filled out at the meeting, taken home and mailed to the ORSSAB offices, or completed online. About 165 questionnaires were completed, and most were heavily in favor of saving the north tower.

At its monthly meeting on March 12, ORSSAB considered a recommendation crafted by Stewardship Chair Darryl Bonner. Based on the input provided at the public meeting and through the surveys, the recommendation supports PKP’s plan to save the north tower and use less than half for a museum and displays.



A questionnaire developed by ORSSAB and the Local Oversight Committee provided opportunity for public comment.

The board passed the recommendation with the minimum number of votes required. Board member Steve Stow suggested that since there was not broad acceptance of the recommendation that a minority opinion be submitted to DOE. That opinion will be

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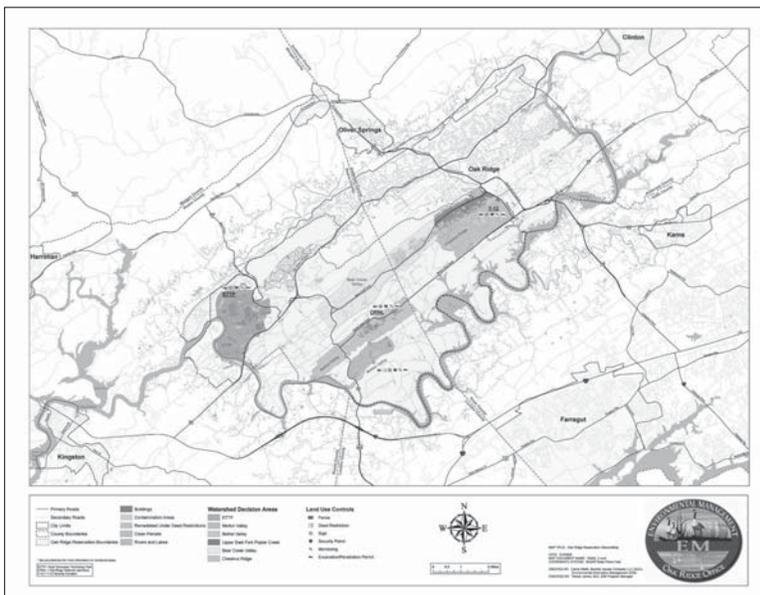
Work Completed on New Stewardship Map

A subcommittee of the ORSSAB Stewardship Committee has developed a stewardship map that shows all remediated areas on the Oak Ridge Reservation and what land use controls are currently in place.

Subcommittee members Norman Mulvenon and Lorene Sigal worked for several months with ORSSAB Federal Coordinator Pat Halsey and Bechtel Jacobs representatives Teresa James, Kathy Gaebel, and Carrie Wolfe to develop the map.

The map is 50 by 64 inches. It will be placed in the DOE Information Center at 475 Oak Ridge Turnpike for public display and use. Accompanying the map will be a notebook that includes reference to all decision documents related to each remediated area. The map will also be available on the Oak Ridge Environmental Information System (www-oreis.bechteljacobs.org/

www-oreis/help/oreishome.html). Smaller versions of the map will be provided to the City of Oak Ridge, and Anderson and Roane County officials. It will also be on display in the ORSSAB exhibit



at the American Museum of Science and Energy.

The map is color coded to indicate the various watershed decision areas: East Tennessee Technology Park, Melton

Valley, Bethel Valley, Upper East Fork Poplar Creek, Bear Creek Valley, and Chestnut Ridge. Within each watershed area the map indicates contamination areas and remediated areas under deed

restrictions. Icons explain what land use controls are currently in place for DOE operating areas and those in place for remediated areas, such as deed restrictions, fences, signs, security patrols, monitoring, and excavation/penetration permits required.

The map is large enough to show the reservation's relative proximity to major population areas.

Each time a remedial action report is approved for remediated areas by the Environmental Protection Agency and the Tennessee Department of Environment and Conservation, the map will be updated to show the changes where waste has been left in place and to the land use controls.

Annual Site Environmental Report Released

The Annual Site Environmental Report (ASER) is prepared each year to summarize a variety of data related to DOE facilities in Oak Ridge:

- Oak Ridge Reservation overview;
- environmental compliance status summary;
- DOE Environmental Management Program summary;
- East Tennessee Technology Park, Oak Ridge National Laboratory, Y-12, and reservation-wide monitoring program results; and
- radiological dose assessment for the reservation.

The ASER consists of three volumes: the main report, a data volume, and a

summary compiled by the Karns High School English Department.

Joan Hughes, ASER project director, presented the most significant results of the FY 2006 report at the March 12 ORSSAB meeting:

- National Pollutant Discharge Elimination System permit compliance sites were at > 99.9%.
- Effective dose equivalent to a hypothetically maximum exposed individual from all reservation pathways was 6 mrem.
- Effective dose equivalent from reservation airborne releases to the most exposed member of the public was 0.8 mrem.

- Nineteen environmental assessments and inspections were made.
- There were no releases of extremely hazardous substances regulated by the Emergency Planning & Community Right To Know Act.
- There were no reportable environmental releases in excess of Comprehensive Environmental Response, Compensation, and Liability Act reportable quantities.
- There was one reportable oil sheen, and one group of fish was killed.

Copies of the report are available at the DOE Information Center (865-576-4780) and online at www.ornl.gov/sci/env_rpt.

Steve Dixon is Committed to Helping Environment

“We face so many environmental issues today that it can be overwhelming, but each person doing a little each day can solve most issues without looking to government to solve our problems.”

That environmental philosophy is one of the reasons Steve Dixon was attracted to service with ORSSAB. “We must realize that each tax dollar we spend takes away from a family’s income or some other community need, like clinics, schools, or roads.”



Steve founded his own business in 1987 and currently serves as president of two companies – Spectra Environmental Group and Spectra Recycling.

Steve says each of us has a negative impact on the environment. “It is what we do to compensate for this that measures our character,” he says. “Hopefully the ORSSAB can be part of the cure.”

Steve has been a member since November 2004, and he currently serves as ORSSAB’s vice chair. He has chaired the Finance Committee, served on two nominating committees for board officers, and has been active in helping plan the board’s annual retreats.

Steve earned a bachelor of science degree in business with a major in accounting at the University of Tennessee-Martin. In 1977 he moved to the Knoxville area to attend graduate

school at the University of Tennessee-Knoxville (UTK), studying planning and finance.

Originally from Camden, S.C., he still owns part of the home place in South Carolina, where the family has been since the Revolutionary War. He currently lives on Fort Loudon Lake with his son Mark. Daughter Tara, a recent UTK graduate, is working on teacher certification at the University of Georgia.

While a graduate student at UTK, Steve worked starting community facilities for the developmentally disabled in several counties. He has also served as the state treasurer for the Tennessee Developmental Disabilities Association.

From graduate studies Steve went to work for the Metro Knoxville Airport Authority as its director of business. He left that position after the World’s Fair in Knoxville to become director of finance for the Knoxville Community Development Corporation. In 1987 he founded his own business and currently serves as president of two companies – Spectra Environmental Group (SEG) and Spectra Recycling (SRI).

SEG is a full-service environmental company that has served more than 1,000 customers in 16 states. SEG

provides turnkey services to small- and medium-size businesses that lack in-house environmental staff. Steve says Spectra provides customers with everything from permitting and contract site work to plant closure.

“SEG makes the money and SRI spends it,” he jokes. But SRI promotes his passion for recycling. He has funded and helped develop recycling programs in 51 schools in five counties, plus several churches and civic groups. SRI’s primary focus is on business and industrial recycling. He is currently forming a non-profit organization that promotes community-based recycling through free enterprise.

Steve is a long-time member of Ducks Unlimited and the Sierra Club. He is also on the advisory board for the Fort Loudon Lake Association, the UT–Little River Advisory Group, and is a partner in the East Tennessee Clean Fuels Coalition. In his spare time he enjoys boating, hiking, gardening, the outdoors in general, and being a UT Volunteers fan.

STOP BY THE ORSSAB BOOTH AT OAK RIDGE EARTH DAY!

Saturday, April 12
Noon – 5:00 p.m.
Oak Ridge Civic Center

Sponsored by the East Tennessee Earth Day Coalition

EARTH DAY

"PLANTING THE SEEDS OF CHANGE"

educate • encourage • empower

Oral History Steering Committee Established

In October 2007 the ORSSAB Oral History Subcommittee and the Oak Ridge Public Library sponsored a workshop to determine the feasibility of establishing a comprehensive oral history program for Oak Ridge. The program would consolidate copies of existing oral histories in one location and would work to gather additional oral histories of current and former workers at the three main DOE Oak Ridge Reservation sites, as well as residents of Oak Ridge who lived here during the Manhattan Project and the Cold War years.

A steering committee has now been formed to oversee the program. Committee representatives include Kathy McNeilly, Oak Ridge Public Library;

Ken Mayes, American Museum of Science and Energy; Mary Ann Damos, Children's Museum of Oak Ridge; Amy Fitzgerald, City of Oak Ridge; Katatra Vasquez, DOE-Oak Ridge; Pam Gorman, National Nuclear Security Administration/Y-12; Patty Simmons, DOE-Oak Ridge Office of Science and Technical Information; Steve Stow, ORSSAB; Gwynn Thayer, Tennessee State Library and Archives; Pat Ezzell, Tennessee Valley Authority; Cynthia Tinker, University of Tennessee Center for Study of War and Society; and two members of the public, Marilyn Reafsnnyder and another person who has yet to be identified.

The steering committee had its first meeting in January and decided that

the Oak Ridge Public Library will act as the manager of the program. The committee reviewed a proposed budget at its February meeting and agreed to approach ORSSAB and DOE-Oak Ridge for startup funding. The committee will work with the library to determine how existing oral histories will be catalogued, the final format of interviews, and subjects to be interviewed in the future.

With the establishment of the steering committee the goal of the ORSSAB Oral History Subcommittee was achieved. The subcommittee has met one last time to craft a recommendation that DOE support the Oak Ridge Oral History Program.

Proposed FY '09 Oak Ridge EM Budget Down About 12%

While the president's overall budget request to Congress for FY 2009 work on the Oak Ridge Reservation is up from FY 2008, the amount of money requested for the Oak Ridge

Environmental Management (EM) program is down by \$66 million.

The current fiscal year appropriation for Oak Ridge EM is \$531 million. The

request for FY 2009 is \$465 million. But DOE-Oak Ridge Assistant Manager for EM Steve McCracken said he was expecting the decrease and has been planning for it. Although funding will be down, the focus will remain on cleanup and remediation at the

East Tennessee Technology Park (ETTP), including decontamination and decommissioning of the K-25 and K-27 buildings and soil and groundwater remediation. "There will not be a slow down of work being done out there," McCracken said at the February ORSSAB meeting.

That assessment is supported by a bump-up received in FY 2008. The Oak Ridge EM budget target request was \$481 million, but the actual appropriation was \$505 million. Increases were provided by DOE-Headquarters for work at ETTP, the David Witherspoon project in Knoxville, and the Building 3019 project at Oak Ridge National Laboratory. And though the bulk of the budget is dedicated to demolition of K-25 and K-27, with additional money provided in the FY 2008 budget other work can be done. That includes resumption of excavation of the classified burial ground, reinitiating



Board member Bill Bass helps one of four breakout groups in Nita Ganguly's advanced placement science class at Oak Ridge High School on January 18. Bass and board member Tim Myrick presented two of Ganguly's classes with real life cleanup issues to resolve then broke students into work groups that were tasked with coming up with solutions.

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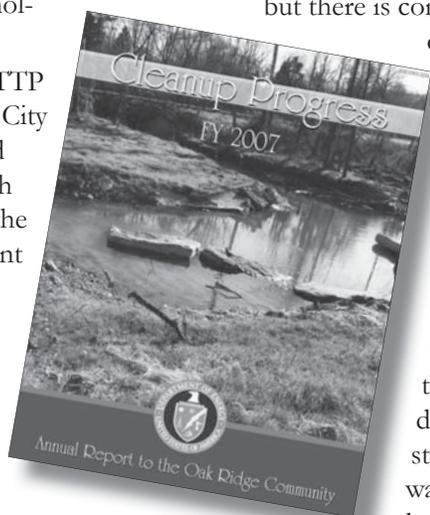
Reservation Update

Cleanup Progress Report Available to the Public

The new edition of *Cleanup Progress: Annual Report to the Oak Ridge Community* is now available. The document discusses the status of environmental cleanup activities on the Oak Ridge Reservation, including projects at ETTP, Oak Ridge National Laboratory, Y-12 National Security Complex, and other reservation sites.

Some 2007 accomplishments include:

- 12 structures demolished at ETTP,
- transfer of the ETTP fire station to the City of Oak Ridge and the planned March 2008 transfer of the site water treatment plant to the city, and
- continued safe dismantlement of the massive K-25 building.



Copies of Cleanup Progress are available at the DOE Information Center, 475 Oak Ridge Turnpike, Oak Ridge, (865) 241-4780. The report may also be viewed online at www.bechteljacobs.com/pdf/CleanProg2007.pdf.

New ETTP Groundwater Collection System Online

A grout barrier wall has been completed and a groundwater collection system became operational in January at East Tennessee Technology Park (ETTP) to intercept chromium-contaminated water discharging from a storm drain into Mitchell Branch, which empties into the Clinch River.

An action memorandum was signed by Steve McCracken, DOE-Oak Ridge assistant manager for Environmental Management, in December approving a

time-critical removal action to address a potential threat to public health and the environment from hexavalent chromium releases into Mitchell Branch. Sampling indicated levels of hexavalent chromium at storm drain 170 as high as 0.78 mg/L, exceeding the state's limit of 0.011 mg/L for the protection of fish and aquatic life. The source of the chromium is not known.

The memorandum says monitoring results do not currently indicate a significant, acute impact on aquatic life, but there is concern that elevated levels could have a chronic impact on aquatic life if the releases were not addressed.

The removal action called for the installation of a grout barrier and groundwater collection system to intercept the contaminated water discharging from the storm drain. The collected water is being treated at the Central Neutralization Facility at ETTP.

MSRE Work Progresses

After a number of starts and stops over the last couple of years, work to remove uranium from the fuel salts in the Molten Salt Reactor Experiment (MSRE) is going well. Dave Adler, DOE Federal Facility Agreement project manager, reported at the February ORSSAB Environmental Management Committee meeting that the fuel salt was being reheated in one of the MSRE tanks. Once all of the salt is in a liquid state, fluorine gas will be introduced to separate the uranium fuel from the salts. The uranium will then be captured on sodium fluoride traps and sent to Building 3019 at Oak Ridge National Laboratory, where it will be stored until final disposition is determined.

Adler said once the uranium is removed the salt will be allowed to cool and the project will be put in standby mode. During that time studies will be done to see how best to dispose of the remaining salt. In about the 2010 timeframe the salt will be re-heated, drained, and canned for disposition.

The final disposition pathway for the uranium is undetermined, but Adler believes a case can be made to dispose of it at the Waste Isolation Pilot Plant in New Mexico, which only takes defense-related transuranic waste. Adler said since some of the work done at MSRE can be tied to defense projects, he felt DOE-Headquarters would agree that it can go to New Mexico.



ORSSAB member Tim Myrick was honored recently by the East Tennessee Economic Council with a "Muddy Boot" award for his work in the renovation project at Oak Ridge High School. The Muddy Boot recognizes individuals who serve their community in a significant way. Myrick has been a member of ORSSAB since 2004.

Recent Recommendations & Comments

Complete recommendation text can be found on the ORSSAB web site at www.oakridge.doe.gov/em/ssab/recc.htm.

Recommendation on Conducting Future Verifications of Cleanup

Independent verification of cleanup has been employed on several occasions on the Oak Ridge Reservation (ORR) and elsewhere at DOE sites around the country.

Independent verification was employed to validate cleanup of East Fork Poplar Creek in the early 1990s and the Three Building Project (Buildings K-29, K-31, and K-33) at East Tennessee Technology Park (ETTP) in 2005, as well as current offsite verification at the David Witherspoon site in Knoxville. In 2006, ORSSAB recommended that independent verification also be used across the entire ETTP site.

At its March meeting the board recommended that DOE continue to use independent verification of cleanup during future remediation projects because it increases the public trust that DOE is living up to its promise to clean up contaminated sites for which it is responsible, making them safe for future generations.

Recommendation on Preparing Future ESDs

In June 2007, DOE issued an information sheet stating the need for an explanation of significant difference (ESD) to the Record of Decision for the Disposal of ORR Comprehensive Environmental Response, Compensation, and Liability Act waste.

The ESD was partially based on the assumption that the Central Neutralization Facility at ETTP, which is the only facility on the reservation approved to accept Resource Conservation Recovery Act-listed waste, would be closing,

requiring shipment of that waste off-site for treatment. It appears now the Central Neutralization Facility is not closing, negating, at least in part, the need for the ESD. In its recommendation ORSSAB supported the ESD, but cautioned DOE that the development of future ESDs should be based on science and facts and not assumptions.

Recommendation on Engineering and Technology on the ORR

In the fall of 2006, the chairs of the Environmental Management Site Specific Advisory Boards (SSABs) recommended that DOE develop a process for public input in incorporating the development and deployment of new technologies for remediating contaminated DOE sites.

In April 2007 a draft engineering and technology roadmap was distributed to the SSABs for comment. The ORSSAB Environmental Management Committee asked Elizabeth Phillips, program manager for the DOE-Oak Ridge Technology Development Program, to discuss engineering and technology on the ORR and the draft roadmap.

The committee noted from her presentation that the Oak Ridge program does not appear to be focused on developing appropriate technologies for key Oak Ridge needs, nor does it possess the resources necessary to produce technologies on schedules that meet regulatory milestones.

The board recommended that DOE re-establish the Oak Ridge Site Technology Coordination Group, focused specifically on ORR cleanup issues and involving all key stakeholders associated with the Oak Ridge cleanup program and the technology development program. The board said the Site Technology Coordination Group, along with

proper funding, is a necessary requisite if improvements in the Environment Technology Program are to be realized.

Recommendation on Historic Preservation of the K-25 Building at ETTP

While DOE-Oak Ridge committed to preserving a portion of the north tower of the K-25 Building at ETTP for historical purposes, the rapid deterioration of the building has made DOE officials question the wisdom of trying to save it. DOE has estimated it would cost almost \$20 million more to save the building than demolish it.

Steve McCracken, DOE-Oak Ridge assistant manager for Environmental Management, asked ORSSAB to provide input on preserving K-25 (see story page 1). The board voted to save the north tower, re-roof it, and divide the building so that part would be used for a museum and displays. The remainder would be unoccupied.

But only a minimum number of board members voted to approve the recommendation. Since there was not a consensus of the board, a minority opinion will be sent to DOE suggesting the building be demolished and perhaps memorialized with an interpretive center either at ETTP or elsewhere.

K-25 Building

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sent to DOE along with the approved recommendation. (The board's recommendation is available online at www.oakridge.doe.gov/em/ssab/recc.htm.)

The next step is for DOE to finalize its position and present its recommendation to the consulting parties of the MOA on how best to preserve the legacy of the K-25 Building. At press time the next meeting of the consulting parties had not been scheduled.

EM Budget Down in FY 2009 *continued from page 5*

cleanup of the ponds at ETTP, and completion of cleanup of the Zone 1 area at ETTP for industrial use.

Dave Adler, DOE-Oak Ridge Federal Facility Agreement manager, also said at the meeting that what was submitted for FY 2009 by DOE-Oak Ridge and what the president submitted to Congress was different in one other key area.

DOE-Oak Ridge asked for \$52.7 million for work at the Y-12 National Security Complex, but the president only requested \$32.4 million. Adler said that this would be a challenge. He said DOE will be working with the state, EPA, and the public to set priorities for the work.

McCracken also said that DOE will look to ORSSAB to provide input on the 2010 budget in late March.

ORSSAB will be voting on this recommendation at its April 9 board meeting. Work priorities for FY 2010 include excavation of soils around Tank W-1A at Oak Ridge National Laboratory, completion of fuel salt removal at the Molten Salt Reactor Experiment, and the completion of demolition activities at the K-25 Building at ETTP.

Upon reviewing the 2010 priorities, board member Tim Myrick wondered if DOE will have compliance agreements that will not be met. Adler responded that DOE has asked EPA and the state to renegotiate some milestones, and they have done that on a few. Fortunately, he said, the Tank W-1A and Molten Salt Reactor Experiment milestones were earlier than the new baselines, and DOE is closing in on completing negotiations on others. The number of milestones DOE has to negotiate is not as great as it would

have been if it had not gotten FY 2008 budget increase, he said.

The board was also interested in knowing whether the Integrated Facilities Disposition Project was included in 2010 plans. McCracken said that DOE is funding the planning. “We are doing scope which is already in the EM scope that may eventually roll into the Integrated Facilities Disposition Project, but we are not budgeting any new scope not part of the EM program.”

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Oak Ridge Site Specific Advisory Board
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Oak Ridge, Tennessee 37831

JOIN US FOR OUR PUBLIC MEETINGS

Board Meetings

- April 9, 6:00 pm – White Oak Lake and Bear Creek Valley Burial Ground
- May 14, 6:00 pm – Presentation to be determined

Committee Meetings

- April 15, 5:30 pm – Stewardship
- April 16, 5:30 pm – Environmental Mgmt.
- May 20, 5:30 pm – Stewardship
- May 21, 5:30 pm – Environmental Mgmt.

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