

Oak Ridge Site Specific Advisory Board Monthly Meeting



Wednesday, May 8, 2013

6 p.m., DOE Information Center
1 Science.gov Way
Oak Ridge, Tennessee

The mission of the Oak Ridge Site Specific Advisory Board (ORSSAB) is to provide informed advice and recommendations concerning site specific issues related to the Department of Energy's (DOE's) Environmental Management (EM) Program at the Oak Ridge Reservation. In order to provide unbiased evaluation and recommendations on the cleanup efforts related to the Oak Ridge site, the Board seeks opportunities for input through collaborative dialogue with the communities surrounding the Oak Ridge Reservation, governmental regulators, and other stakeholders.

CONTENTS

AGENDA

PRESENTATION MATERIALS – 2013 Oak Ridge Reservation Remediation
Effectiveness Report

CALENDARS

1. May
2. June (*draft*)

BOARD MINUTES/RECOMMENDATIONS & MOTIONS

1. April 10, 2013, draft meeting minutes
2. Recommendation on Remaining Legacy Materials on the Oak Ridge Reservation
3. Recommendations on the FY 2015 DOE Oak Ridge Environmental Management Budget Request

REPORTS & MEMOS

1. Recommendation Tracking Chart
2. EM Projects Update for March/April
3. Abbreviations/Acronyms for EM Projects Update
4. FY 2013 Travel Opportunities



Oak Ridge Site Specific Advisory Board
Wednesday, May 8, 2013, 6:00 p.m.
DOE Information Center
1 Science.gov Way, Oak Ridge, Tenn.

AGENDA

- I. Welcome and Announcements (D. Martin) 6:00–6:05
 - A. Next Meeting: Wednesday, June 12, 6:00 p.m., DOE Information Center
Presentation Topic: National Environmental Management Program
 - B. Introduction of New Student Representatives (S. Cange)

- II. Comments from the Deputy Designated Federal Officer, and the DOE, EPA, and TDEC
Liaisons (S. Cange, D. Adler, C. Jones, J. Owsley)..... 6:05–6:20

- III. Public Comment Period (C. Jensen) 6:20–6:30

- IV. Presentation: Remediation Effectiveness Report (Jason Darby) 6:30–7:05
Question and Answer Period 7:05–7:20

- BREAK..... 7:20–7:30

- V. Additions/Approval of Agenda..... 7:30

- VI. Motions 7:30–7:35
 - A. April 10, 2013, Meeting Minutes (C. Jensen)
 - B. Recommendations on Remaining Legacy Materials on the Oak Ridge Reservation
(D. Hemelright)
 - C. Recommendations on the FY 2015 DOE Oak Ridge Environmental Management Budget
Request (T. Valunas)

- VII. Responses to Recommendations & Comments (D. Adler)..... 7:35–7:40

- VIII. Committee Reports..... 7:40–7:50
 - A. Board Finance & Process (G. Paulus)
 - 1. Annual Meeting Planning Committee (S. McKinney)
 - B. Environmental Management (B. Hatcher)
 - C. Public Outreach (S. McKinney)
 - D. Stewardship (C. Staley)
 - E. Executive (D. Martin)
 - 1. Center for Oak Ridge Oral History (C. Staley)

- IX. Federal Coordinator’s Report (M. Noe) 7:50–7:55

- X. Additions to Agenda 7:55–8:00

- XI. Adjourn 8:00



**DOE Oak Ridge Reservation
CERCLA
2013 Remediation Effectiveness Report**

May 8, 2013

*DOE – Jason Darby
Water Resources Restoration Program – Lynn Sims,
Dick Ketelle*

**2013 Remediation Effectiveness Report
(RER)**

Purpose

- **Determine effectiveness of remedial actions in achieving a stated goal and compliance with long-term stewardship requirements.**

Scope

- **Stewardship activities (FY 2012)**
- **Ongoing actions status**
- **Monitoring results (FY 2012)**
- **Remedy effectiveness**
- **Actions/Recommendations**

2013 RER Long Term Stewardship Verification Results

- Tracked 55 CERCLA sites (over 200 checks, includes 7 treatment/collection systems)
 - Includes FY2012 Certification of Land Use Controls for Melton Valley
 - Addition of new appendix to track slab stewardship requirements
 - No new issues or recommendations identified

2013 RER Long Term Stewardship Verification Results

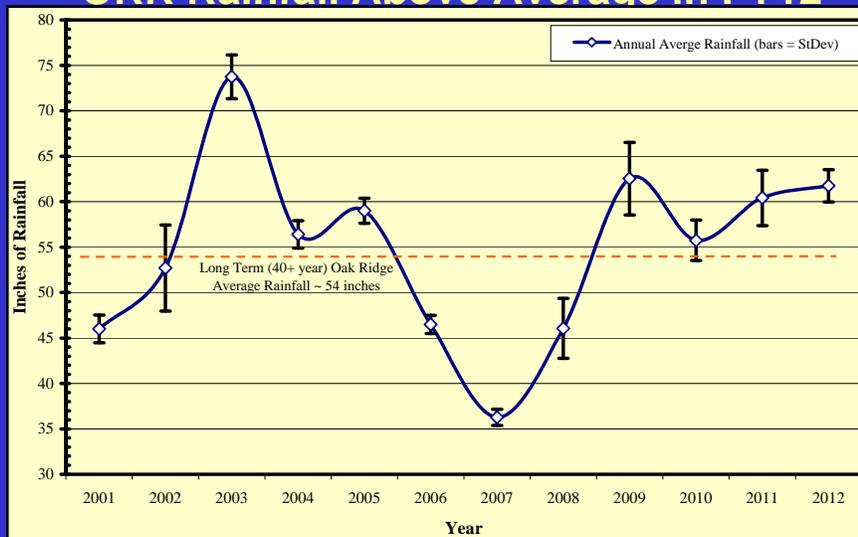
- Tracked 55 CERCLA sites (over 200 checks, includes 7 treatment/collection systems)
 - Includes FY2012 Certification of Land Use Controls for Melton Valley
 - Addition of new appendix to track slab stewardship requirements
 - No new issues or recommendations identified

2013 RER Remedial Action Status

- **UEFPC**
 - D&D work continued and cleanup of the Old Scrap Yard was completed and significant work was performed on Mercury Reduction
 - Mercury discharges from storm sewers decreased to pre-cleanout levels although the downstream levels remained elevated
- **Bear Creek Valley**
 - Uranium flux goal at Integration Point (BCK-9.2) is yet to be attained; monitoring indicates NT-8 (Bear Creek Burial Grounds) remains a significant contributor to uranium flux in Bear Creek
- **ETTP**
 - Demolition of most of the K-25 building East Wing completed, work started on North Wing demolition
 - Contaminant levels in groundwater and surface water generally stable or decreasing
 - Mitchell Branch hexavalent chromium treatment system started operation
 - K-1070-B burial ground excavation completed
 - D1 of Zone 1 Final ROD submitted to regulators
- **Bethel Valley**
 - Tank W-1A soil and tank shell excavation completed
 - CH-8 plume extraction system upgrade completed. Sr-90 levels at 7500 Bridge (Integration Point) decreased
 - RA completed on 18 slabs and associated structures in Northwest Quadrant
 - Legacy material removed from Building 3038
 - Completion documents approved for D&D projects and Bethel Valley Burial Ground RA completed in 2011
- **Melton Valley**
 - Goals at White Oak Dam continue to be met as result of hydraulic isolation of Melton Valley source areas
 - Monitoring of exit pathway and offsite wells shows groundwater flow paths converge toward Clinch River. Groundwater pumping offsite has potential to draw DOE contaminants offsite. As a precaution drinking water provided to offsite residents

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2013 RER ORR Rainfall Above Average in FY12

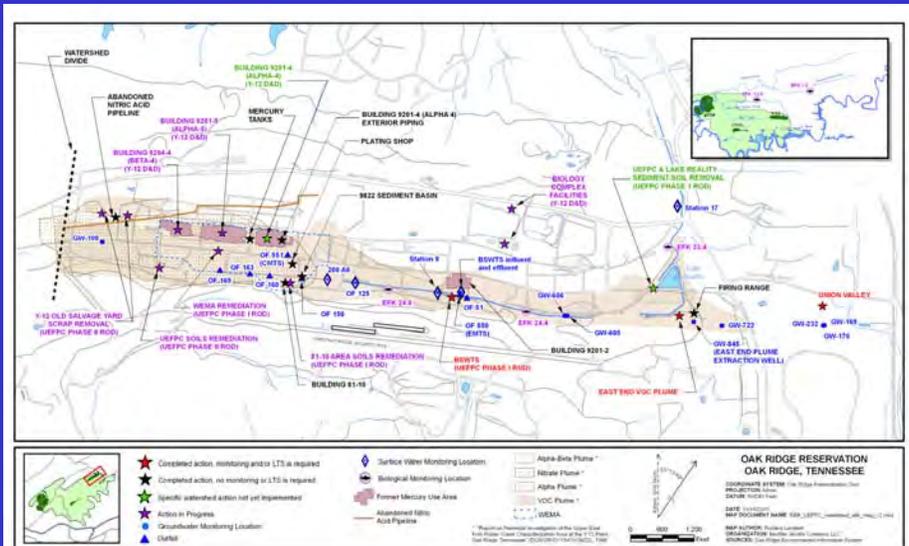


2013 RER Upper East Fork Poplar Creek

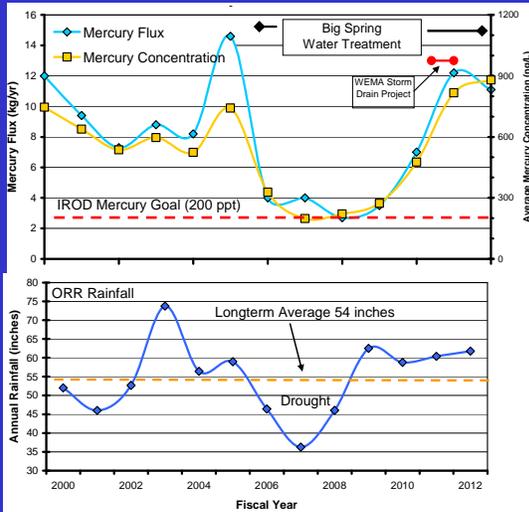
- PCCR for West End Mercury Area Storm Sewer Remediation Project approved in FY 2012
- PCCR for Scrap Metal Removal at the Old Salvage Yard was approved in FY 2012
- Soil remediation at the Old Salvage Yard was completed and PCCR was submitted in FY 2012
- An 11.7 acre area including 81-10 former mercury recovery process site was characterized and a Remedial Design Work Plan for site cleanup was submitted in FY 2012
- Mercury Reduction Project activities included: 1) installation of mercury "traps" for removal of free mercury from selected storm drain locations, 2) treatability study and conceptual design of a storm water mercury treatment plant for Outfall 200, 3) mercury contaminated soil treatability study, 4) designs were completed to retrofit selected drains at Alpha 4, Alpha 5, and Beta 4 to prevent additional release of mercury to the environment, 5) 5 tanks formerly used in mercury related activities were characterized and transported offsite for disposal.
- Approval of RARs for D&D activities completed in FY 2011

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2013 RER Upper East Fork Poplar Creek

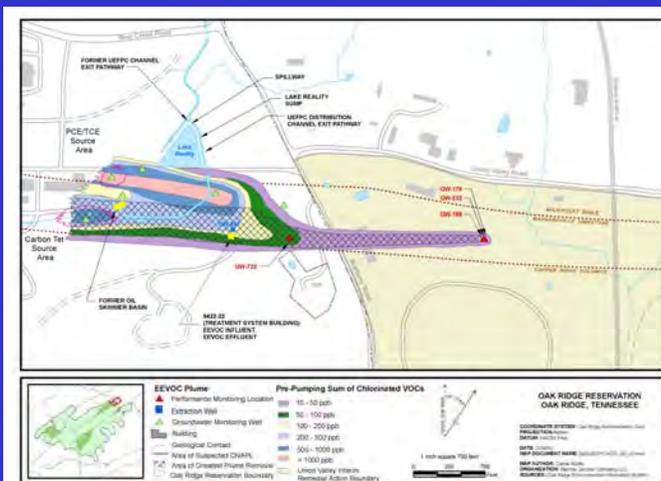


2013 RER Mercury Flux and Concentration at Station 17



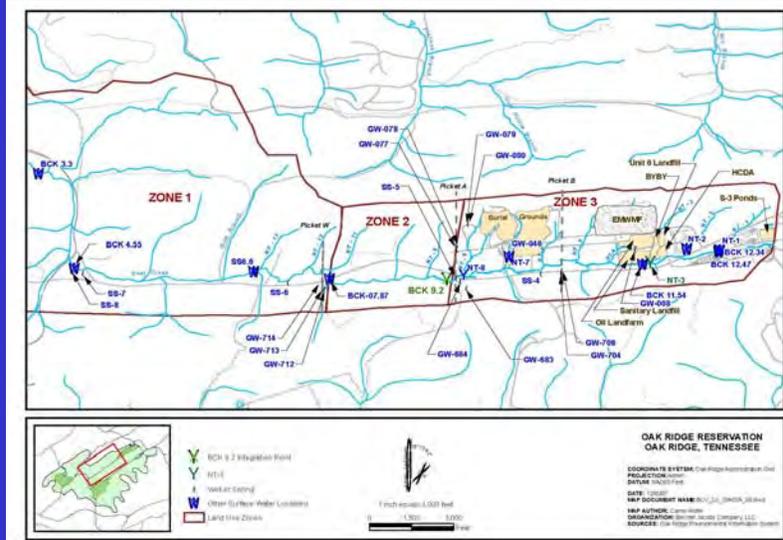
- Mercury discharges remained elevated during FY 2013
- ROD goal not yet attained

2013 RER EEVOC Pump and Treat

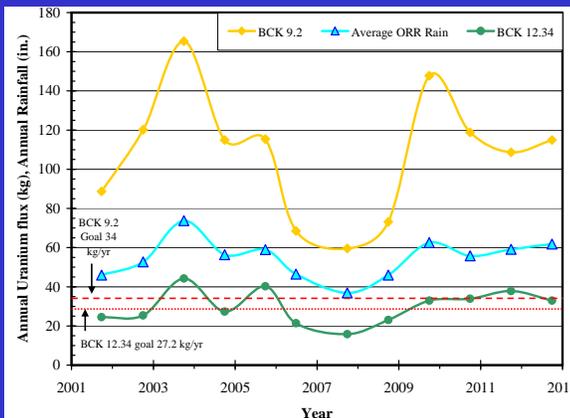


- Pump and treat has contained the VOC plume – protects offsite groundwater quality

2013 RER Bear Creek Valley

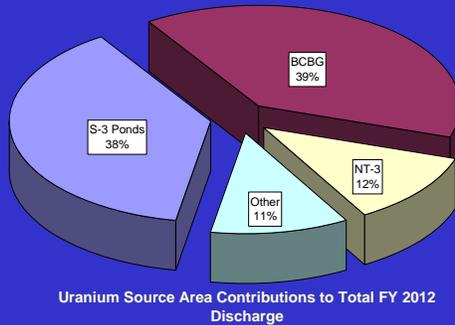


2013 RER Bear Creek Valley Uranium



- BCK 12.34 flux goal met 6 of 11 years when annual rainfall is at or below average
- Flux goal not met at BCK 9.2
- Fluxes trend with annual rainfall

2013 RER Bear Creek Valley



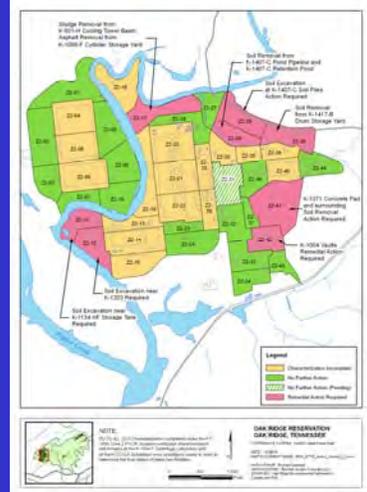
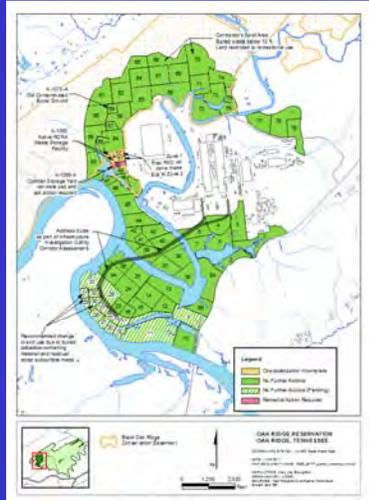
- Uranium and nitrate are principal surface water contaminants
 - Uranium goal not met at Integration Point (IP) and not yet met consistently at BCK 12.34 (S-3 Ponds)
 - NT-8 (western side of Bear Creek Burial grounds) contributed ~ 38% of FY13 uranium flux
 - NT-3 uranium flux was ~ 14 kg which exceeds the BYBY remediation goal and comprises ~ 12% of IP uranium flux. Isotopic signature indicates source is different from the BYBY waste.

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2013 RER Progress at ETPP

- K-1070-B burial ground remediation was completed and PCCR was submitted during FY 2012
- The K-33 Building Demolition PCCR was approved in FY 2012
- K-33 slab was removed in FY 2012
- Most of the K-25 Building East Wing exclusive of the technetium area was demolished in FY 2012
- Demolition was initiated on the K-25 North End
- Characterization was completed on 22 structures within the Poplar Creek D&D project scope
- The PCCR for the 2011 demolition of 14 low-risk/low-complexity facilities was approved in FY 2012
- The PCCR for the 2011 demolition of 20 predominantly uncontaminated facilities was approved in FY 2012.
- Chromium water treatment system at Mitchell Branch started operation in FY 2012
- A technical memorandum was prepared to document interim closure of the K-1401 groundwater treatability test site since further work on the project is deferred
- Completed remediation required by Zone 1 Interim ROD
- Monitoring of groundwater and surface water show that contaminant conditions are generally stable
- Submitted D1 of Final Zone 1 Remedial Investigation and Feasibility Study for East Tennessee Technology Park which addresses groundwater, ecological protection, and land use controls

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2013 RER Bethel Valley

- RA completed for 18 slabs and associated structures in Northwest Quadrant in FY 2012
- 2 PCCRs approved for 34 Buildings D&D Project in FY 2012
- Building 3026 Hot Cells revised approach for hot cell cleanout approved in FY 2012
- Building 3038 legacy materials removed and disposed in FY 2012
- Isotopes Row Facilities PCCR approved in FY 2012
- 4500 Area Gaseous Waste System Upgrade started in FY 2012
- Bethel Valley Burial Ground PCCR approved in FY 2012
- Bethel Valley 7000 Area Plume monitoring continued in FY 2012
- Core Hole 8 Plume Extraction Wells PCCR was approved in FY 2012
- Tank W-1A excavation complete in FY2012
- Ongoing monitoring of surface water, groundwater, and aquatic biota

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2013 RER Core Hole 8 Plume Collection

- Core Hole 8 plume collection system was refurbished in FY 2012
- As a result, strontium-90 levels in White Oak Creek at 7500 Bridge decreased to Bethel Valley ROD goal levels

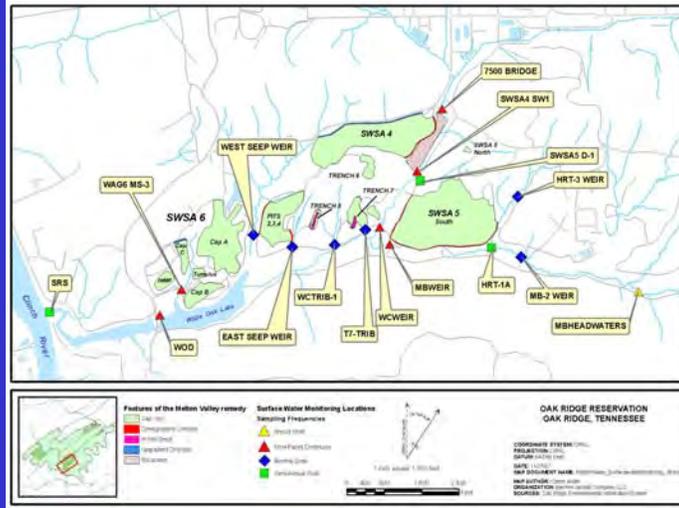
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2013 RER Melton Valley

- ROD actions completed by end of FY06
- Remedy operations ongoing (surveillance & maintenance)
- FY 2012-13 SWSA 4 downgradient trench wells redeveloped to improve performance
- Performance monitoring includes surface water quality and effectiveness of hydrologic isolation of buried waste units
- Aquatic biota monitored to evaluate ecological recovery

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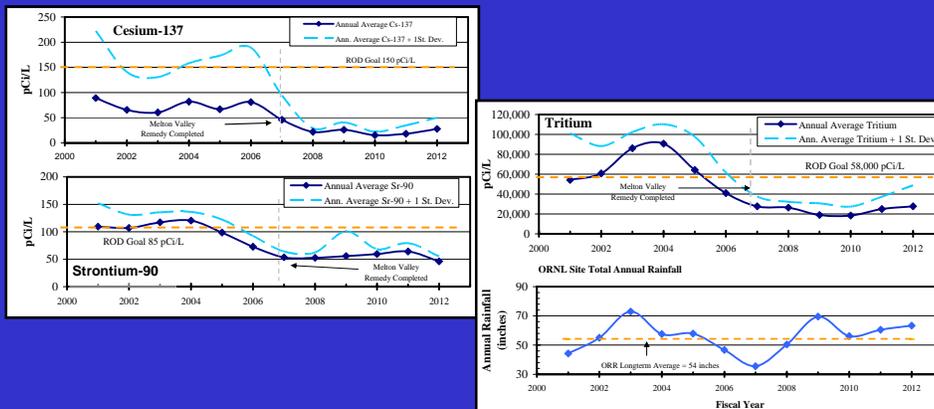
2013 RER Melton Valley Surface Water Monitoring



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2013 RER White Oak Dam (IP) Data

•⁹⁰Sr, tritium (and ¹³⁷Cs) goals at the IP have been attained and maintained since completion of MV remedy and have shown minimal response to above average rainfall during FY 2009 through FY 2012



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2013 Melton Valley Exit Pathway and Offsite Groundwater

- Past detection of DOE contaminants in onsite exit pathway wells was followed by installation of offsite monitoring wells.
- DOE provided permanent utility water supplies to residents offsite and near Clinch River.
- Monitoring continues at 16 DOE-built offsite wells and 7 offsite residential wells.

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2013 RER ORR Offsite

- LEFPC – mercury concentrations in fish tissue continue to exceed EPA criteria
- Lower Watts Bar/Clinch River/Poplar Cr
 - PCBs in reservoir fish trending downward since 1980's
 - Mercury in LWBR fish are below EPA criteria

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2013 RER Issues/Recommendation Summary

- New issue identified includes performance deterioration of piezometer 4544
- Continuing issues
 - MV exit pathway and offsite groundwater monitoring (revised SAP pending approval)
 - Continued elevated BCV NT-8 uranium flux (ongoing issue)
 - BCV Zone 2 well installation (added to BCV future groundwater ROD scope)
 - Resolve ETPP Zone 1 Land Use difference with BORCE will be addressed by change in end use for that area from industrial to recreation in addendum to Zone 1 Interim ROD.
- 5 previous issues closed during FY 2012

Does not include administrative document items or minor monitoring changes

2013 RER Comments

- Please provide comments to Jason Darby DOE by July 1, 2013
856-241-6343 (phone)
darbyjd@emor.doe.gov



Oak Ridge Site Specific Advisory Board

May 2013

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7	8 Monthly SSAB Meeting 6 p.m.	9	10	11
12	13	14	15	16	17	18
19	20	21 Public Outreach 5:30 p.m.	22 Board Finance & Process Committee 5 p.m. Executive Committee 5:30 p.m.	23	24	25
26	27 Memorial Day Holiday DOE/staff holiday	28	29	30	31	

All Meetings will be held at the DOE Information Center, Office of Science and Technical Information, 1Science.gov Way, Oak Ridge unless noted otherwise.

The Stewardship Committee will not meet in May.

In lieu of an EM Committee meeting will be a tour of the Transuranic Waste Processing Center, date to be determined.

ORSSAB Support Office: (865) 241-4583 or 241-4584 **DOE Information Center:** (865) 241-4780

Board meetings on cable TV and YouTube	
Knoxville: Charter Channel 6, Comcast Channel 12	Sunday, May 19 and 26 at 4 p.m.
Lenoir City: Charter Cable Channel 3	Wednesdays, 4 p.m.
Oak Ridge: Channel 12	Thursday, May 16, 9 p.m.
Oak Ridge: Channel 15	Monday, Wednesday, Friday, 8 a.m. & noon
YouTube	http://www.youtube.com/user/ORSSAB



Oak Ridge Site Specific Advisory Board

June 2013

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4	5	6	7	8
9	10	11	12 Monthly SSAB Meeting 6 p.m.	13	14	15
16	17	18 Stewardship Committee 5:30 p.m.	19 EM Committee 5:30 p.m.	20	21	22
23	24	25 Public Outreach 5:30 p.m. teleconference	26 Board Finance & Process Committee 5 p.m. Executive Committee 5:30 p.m.	27	28	29
30						

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YouTube	http://www.youtube.com/user/ORSSAB

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Many Voices Working for the Community



Oak Ridge Site Specific Advisory Board

Unapproved April 10, 2013 Meeting Minutes

The Oak Ridge Site Specific Advisory Board (ORSSAB) held its monthly meeting on Wednesday, April 10, 2013, at the DOE Information Center, 1 Science.gov Way, Oak Ridge, Tenn., beginning at 6 p.m. A video of the meeting was made and may be viewed by contacting the ORSSAB support offices at (865) 241-4583 or 241-4584. The presentation portion of the video is available on the board's YouTube site at www.youtube.com/user/ORSSAB/videos.

Members Present

Jimmy Bell
Robert Craig
Lisa Hagy
Janet Hart
Bob Hatcher
David Hemelright, Vice
Chair

Bruce Hicks
Chuck Jensen, Secretary
Jennifer Kasten
Ross Landenberger¹
David Martin, Chair
Donald Mei

Greg Paulus
Belinda Price
Coralie Staley
Thomas Valunas
Sam Yahr¹

Members Absent

Alfreda Cook
Howard Holmes
Jan Lyons
Fay Martin
Scott McKinney
Robert Stansfield
Scott Stout

¹Student Representative

Liaisons, Deputy Designated Federal Officer, and Federal Coordinator Present

Dave Adler, Liaison and Alternate Deputy Designated Federal Officer, Department of Energy-Oak Ridge Office (DOE-ORO)

Susan Cange, DOE-ORO Deputy Manager for Environment Management (EM) and Deputy Designated Federal Officer

Connie Jones, Liaison, Environmental Protection Agency (EPA), Region 4

Melyssa Noe, ORSSAB Federal Coordinator, DOE-ORO

John Owsley, Liaison, Tennessee Department of Environment and Conservation (TDEC)

Others Present

Terry Cothron, DOE-Y-12 National Security Complex

Susan Gawarecki

Spencer Gross, ORSSAB Support Office

Jim Kopotic, DOE-ORO

Bill McMillan, DOE-ORO
Norman Mulvenon
Pete Osborne, ORSSAB Support Office
Chris Thompson, TDEC
Laura Wilkerson, DOE-ORO

Ten members of the public were present.

Liaison Comments

Mr. Adler – no comments

Ms. Cange – The President presented his FY 2014 budget request to Congress on this date. Ms. Cange provided a link to the full DOE budget request (http://energy.gov/sites/prod/files/2013/04/f0/FY14_DOE_Budget_Highlights_Final.pdf). In summary she said the EM budget request for FY 2014 across the complex is down from FY 2012 by about \$100 million to \$5.6 billion. The Oak Ridge EM budget request is about \$413 million, down by approximately 1.3 percent from FY 2012. She noted the Oak Ridge budget request does not include money for safeguards and security, which is about \$18.8 million. She said that added to what is noted in the Budget Highlights equals the \$413 million.

A public workshop on the DOE Oak Ridge EM budget request for FY 2015 is scheduled for Tuesday, April 23 at 4 p.m. at Pollard Auditorium in Oak Ridge. The purpose of the workshop is to discuss DOE Oak Ridge EM accomplishments and plans and ask for public comment on cleanup priorities. Those comments will be factored into the budget request to DOE Headquarters. Ms. Cange invited board members to attend and participate in the workshop.

Mr. Owsley – Mr. Owsley introduced Ms. Thompson as TDEC's director of external affairs for the Knoxville TDEC field office.

Ms. Jones – no comments

Public Comment

Mr. Mulvenon asked those present to pay close attention to presentations. He also encouraged the departing student representatives to talk to their classmates about their experience on the board.

Ms. Gawarecki said the ability for the Oak Ridge EM Program to dispose of transuranic (TRU) waste in Oak Ridge is key to the cleanup of the Oak Ridge Reservation (ORR). She said there have been delays in characterization of TRU waste because of budget issues and disposal tends to be delayed as well. She said the opportunity to dispose of Oak Ridge remote-handled TRU waste at the Waste Isolation Pilot Plant in New Mexico can't be lost before the plant closes. She said occasionally the plant has permit changes and she thinks ORSSAB should be monitoring the situation closely and be prepared to comment on changes that could affect disposal of Oak Ridge TRU waste. She suggested setting up a fast track process so the board can make comments quickly on issues that affect disposal of TRU waste.

Presentation

DOE Oak Ridge EM has developed a strategic plan for the cleanup of the ORR, which emphasizes an integrated approach to identify environmental legacies at Y-12 National Security Complex, Oak Ridge National Lab (ORNL), and East Tennessee Technology Park (ETTP). Portfolio plans have been produced for each site, which describe plans, challenges, sequencing, schedule for cleanup, and approximate cost to complete.

The three federal project directors (FPD) for the three sites were on hand to provide information on their respective sites.

Mr. Kopotic is the FPD for ETTP. The main points of his presentation are in Attachment 1. He began by saying that the purpose of the cleanup at ETTP is to make it available for private use as a commercial industrial part. The scope of the cleanup includes building demolition, soil, buried waste and groundwater remediation (Attachment 1, page 3). He noted that everything with hatch marks on the figure require no further action on the soil and buried waste. DOE has recommended no further action on areas in dark green.

Mr. Kopotic said the deteriorated state and presence of technetium in the remaining part of the K-25 building and K-27 present challenges to workers (Attachment 1, page 4).

Almost all of K-25 has been demolished except for the 6 units on what was the south end of the west wing (Attachment 1, page 5). Pre-demolition activities are underway in K-27. Surveillance and maintenance, waste operations, security, infrastructure, and landlord activities continue.

The primary points of the ETTP Portfolio Plan are listed on page 6 of Attachment 1. Mr. Kopotic said these points provide the basis for the ETTP portion of the DOE Oak Ridge EM strategic plan. Execution of the plan (Attachment 1, page 7) will include disposition of legacy waste and materials, eliminating deteriorating facilities, remediating soil and groundwater, and making the area available for reindustrialization.

The chart on page 8 of Attachment 1 shows project scope at ETTP. The schedule to address those projects is on page 9. Mr. Kopotic said the schedule for completion of activities at ETTP is 2024.

The budget forecast is charted on page 10 of Attachment 1. Mr. Kopotic said it is based on assumptions of appropriations of about \$420 million per year, which could fluctuate through the years. He noted that the FY 2014 request is less than that, but he also said some projects are running under budget. Ms. Cange said it would take about \$2.3 billion to complete cleanup of ETTP.

After Mr. Kopotic's presentation a number of questions were asked. Following are abridged questions and answers.

Mr. Bell – What is the status of remaining concrete pads from demolished buildings? Mr. Kopotic – All of the slabs in the front half of the site will come out. In the back half of the site, if we have to go in and dig out soil, it's often cheaper to remove the slab as well. K-1401 had a basement. After we had dug out the basement we used the slab material as fill. We ended up with a much larger clean, grassy area that's more conducive for someone coming in with new construction rather than starting with an old slab.

Mr. Hatcher – What's being done with the technetium-99 and chromium 6 problems? Mr. Kopotic – We have treatment plant installed to address chromium 6, and it's working well. Characterization is being completed for tech-99 contamination. We assumed all six remaining units in K-25 would be contaminated with tech-99 above the waste acceptance criteria for the onsite disposal facility. However, preliminary information indicates that while all of the three southern units will have to be disposed offsite, the rest can be disposed onsite. Mr. Hatcher – What about tech-99 in groundwater? Mr. Kopotic – I'm not aware of any technetium in the groundwater. Mr. Adler – The principal issues in groundwater at ETTP are solvents.

Ms. Gawarecki – How much of K-27 is contaminated with tech-99 that will have to be disposed offsite? Mr. Kopotic – We just started the phase one characterization. I'm going to say a little more than half of the equipment in K-27 will have to be sent offsite. Most of the building can be disposed

on site. It's the equipment I'm talking about – the converters and compressors, the process gas equipment. Of the nine units in K-27, four to five will have to go off site.

Ms. Gawarecki – Will K-27 be taken down differently than K-25? Will it be segregated? Mr. Kopotic – It depends on how we come up with the demolition plan. The best way to do it is to do it like we're doing on K-25. We'll work with EPA and TDEC and get the high-risk equipment out and take the building down using heavy equipment.

Ms. Wilkerson is the FPD for Y-12. The main points of her presentation are in Attachment 2. Y-12 has a continuing mission in national security focused on uranium storage and processing.

The cleanup objectives for Y-12 are noted on page 3 of Attachment 2. The areas in yellow note the primary sources of mercury contamination. The three areas on the west end of Y-12 include Alpha 4, Alpha 5, and Beta 4, the three former mercury use buildings, and the 81-10 area, a former mercury reclamation area, which is now the remaining slab and surrounding contaminated soils.

Ms. Wilkerson said there are many other facilities at Y-12 that need to be demolished and areas remediated of contamination besides mercury.

The portfolio strategy for Y-12 (Attachment 2, page 4) is divided into near-term, mid-term, and long-term activities. She said near-term is considered present to about 2019, mid-term from 2019 to 2030, and long-term 2030 and beyond. She said because the bulk of ORR cleanup funds are on cleanup at ETTP, the near-term focus at Y-12 is on reduction of mercury flux and expansion of waste disposal capacity for the ORR.

Page 5 of Attachment 2 notes the Y-12 cleanup challenges. In addition to the challenges noted on page 5, Ms. Wilkerson said all of this work is to be done in close proximity to the mission activities at Y-12.

Ms. Wilkerson said almost 100 facilities at Y-12 require demolition, many of them small ancillary facilities to larger structures that are to be demolished (Attachment 2, page 6). Three areas of Y-12 require soil remediation (Attachment 2, page 7).

For the near-term Ms. Wilkerson said there are two main projects at Y-12 (Attachment 2, page 8). A proposed treatment facility at Outfall 200 is designed to reduce the amount of mercury leaving the contaminated areas and entering East Fork Poplar Creek. Outfall 200 is the headwaters of the creek and is the primary point where mercury is discharged from the storm sewer lines in the West End Mercury Area of Y-12. The plan for the treatment facility has been completed and will be submitted to EPA and TDEC for review. She said the design of plant is such that it can be expanded as needed.

The other near-term project is to expand the disposal capacity for waste generated from cleanup of Y-12 and ORNL. The new facility will be approximately the same size as the Environmental Management Waste Management Facility in Bear Creek Valley. Ms. Wilkerson said construction of the new facility should begin in the 2018 timeframe.

The schedule of work for Y-12 is noted on page 9 of Attachment 2. Ms. Wilkerson said the plan is to begin soil remediation after each building slated for demolition is razed.

The chart on page 10 of Attachment 2 is the Y-12 budget forecast. Ms. Wilkerson said it is based on a \$420 million annual appropriation escalated over time. During the peak of cleanup work at Y-12 in the 2034 timeframe about three-fourths of the Oak Ridge budget would be used for cleanup at Y-12.

She noted that as work wraps up at ETPP in about 2024 the budget for cleanup at Y-12 increases significantly.

An artist's rendition of what Y-12 would look like after completion is shown on page 11 of Attachment 2.

After Ms. Wilkerson's presentation a number of questions were asked. Following are abridged questions and answers.

Mr. Bell – Can you tell us the chemistry involved in the mercury removal process in the treatment facility? Ms. Wilkerson – It's basically solid precipitation and using chemicals to separate the mercury from water. Mr. Bell – What is the mercury that is released at Outfall 200? Mr. Cothron – Organic, inorganic, methyl, elemental. Mr. Bell – At ORNL there was mercury underneath Building 4501 and 4505. Do you have this situation at Y-12? Mr. Cothron – We'll encounter that when we get to the building demolition. Some of that mercury is making its way out today. The front end of the water treatment plant will be typical headworks for a water treatment plant. We'll do grit removal and sediment removal. There would be a series of steps where you capture elemental mercury in the grit removal process. Ms. Wilkerson – We have done something recently using remaining Recovery Act funds. A lot of the mercury collects in the manholes before it gets into the creek. We have installed mercury traps at nine different locations, which allows the mercury by gravity to get collected in the traps, and it's removed from the traps periodically before it reaches the water. We've removed about 26 pounds since we began in the summer.

Mr. Bell – I read in the paper a few months ago that mercury levels in the creek were improving with time. Ms. Wilkerson – In the 1980s and early 1990s a lot of remedial actions were taken to reduce mercury levels in Upper East Fork Poplar Creek. We saw a significant decline in mercury levels. But we have not seen significant reductions in mercury since then. The most recent action was the cleanout of the storm sewer system in the West End Mercury Area of Y-12. As a result of the cleanup we actually saw an increase of mercury leaving Y-12 at Station 17. We believe that was the result of an upset to the system because of the cleanup, and we expect that to level out over time. But in general until we take additional actions I don't think we'll see a reduction of mercury in the water.

Mr. Paulus – The water treatment facility that is being built in 2015, that is based on existing, proven removal technology? Ms. Wilkerson – That is correct. Mr. Hicks – I'm interested in that technology and I'll be looking for evidence that the chemistry used in the treatment does not increase the amount of organic mercury. It's the organic, the methylated mercury that I'm, interested in. Ms. Wilkerson – The technology we're proposing to use is essentially the same technology in the Big Springs Water Treatment Plant that treats water from the springs under Alpha 2 and has been working very well. Mr. Hicks – Does it show a reduction in the methylated mercury? Ms. Wilkerson – Not a reduction in the methylation, but a reduction in mercury flux. Mr. Cothron – Methyl mercury is not a problem in this process.

Mr. Hatcher – What is being done with the mercury that is recovered? Ms. Wilkerson – For the work that we did under the Recovery Act, most of it was treated and disposed in facilities out west. The mercury that we will be collecting, because it will be in small amounts, will be stored until we have a quantity sufficient to dispose.

Mr. Bell – Of the new activities at Y-12, are they isolated from the mercury problem? Ms. Wilkerson – No. Ms. Cange – There is a slide in the presentation (Attachment 2, page 6, shaded area) that shows where the Uranium Processing Facility will be constructed. You can see the close proximity to the Alpha and Beta Buildings. Mr. Bell – Do you foresee the new facilities having any problems related to the mercury? Mr. Cothron – All of that is up gradient from the mercury

problem areas. (Page 3 of Attachment 2, shows the storm sewer lines with mercury contamination are to the south, down gradient, of the site of the proposed Uranium Processing Facility)

Mr. McMillan is the FPD for ORNL. The main points of his presentation are in Attachment 3.

The cleanup strategy for ORNL is divided into two phases – near-term and out-year (Attachment 3, page 3). It is sequenced in with the DOE Oak Ridge EM priorities to finish work at ETTP first and then to focus on the mercury at Y-12. Mr. McMillan said significant demolition work at ORNL will not begin until the mid-2020s. Near term actions are focused on removal of legacy materials, primarily transuranic waste and uranium-233.

Demolition activities to begin around 2024 are focused on higher risk facilities in the central campus (Attachment 3, page 4). Demolition of Melton Valley facilities would begin in the 2030 timeframe. After demolition of facilities the next step is remediation of media underneath. When all of that is complete the areas will be turned back to ORNL for continued development of the science mission. Mr. McMillan noted that challenges to be encountered are primarily related to the location of high risk facilities in proximity to new science facilities (Attachment 3, page 4). Certain isotopes, primarily strontium and cesium, require special handling.

Mr. McMillan said there are 268 facilities that will require eventual demolition (Attachment 3, page 6); most are in Bethel Valley in the main campus of ORNL. Many of the facilities are smaller ancillary units.

The map on page 7 of Attachment 3 indicates facilities in Melton and Bethel valleys that are to be demolished or preserved for historical purposes. Mr. McMillan said the demolition activities are planned to follow the groundwater flow direction.

Demolition/remediation activities for both Bethel Valley and Melton Valley are noted on pages 8 and 9 of Attachment 3.

The schedule for ORNL facilities demolition is shown on page 12 of Attachment 3.

The budget forecast for ORNL is noted on page 13 of Attachment 1. Page 14 is an artist's conception of what ORNL would look like when work is completed.

After Mr. McMillan's presentation a number of questions were asked. Following are abridged questions and answers.

Mr. Valunas – In developing budgets how do you determine what projects get money and when they get it? Mr. McMillan – We take a look at the entire portfolio and the projects that are either regulatory driven or discharge releases, either real or potential. We assess those risks and then lay them in to what our budget constraints are so we try to address them logically. Ms. Cange – What we do each year during our budget formulation process is we review with the regulators what our priorities are near-term, which is a four to five year window for budget planning purposes. The FPDs work hard to obtain as much funding as possible to do the work at their sites. But we are somewhat limited to a relatively flat budget and after we talk and come to an agreement with the regulators on the priorities we distribute the expected available funds across those near-term priorities. Mr. Valunas – How real are the graphs beyond five years? Ms. Cange – This is a difficult process because as you know we receive our budget annually from Congress. It is difficult to be able to plan and execute projects that are sometimes tens or hundreds of millions of dollars when we receive annual appropriations from Congress. So those out year projects are based on assumptions and every year we have to reevaluate based on the funding we have received for that year as well as any insight we might have about the next few years. Our strategic plan is a living

document that is evaluated on an annual basis. We will see some slight variation in schedule and cost as we progress through the cleanup work. Mr. Valunas – Is there a baseline to compare over time? Ms. Cange – We do have a programmatic baseline and just recently completed the first round of a new baseline for the entire program in Oak Ridge. That baseline is the basis for the strategic plan and for the ‘mountain’ charts (budget charts) for each of the portfolios shared today. Mr. Kopotic – It’s relevant to know that the uranium enrichment decontamination and decommissioning fund appropriated by Congress can only be spent at ETTP, Portsmouth, and Paducah. If we cut that, it really wouldn’t benefit Mr. McMillan or Ms. Wilkerson; it would most likely go to Paducah.

Mr. Bell – You had a picture of Melton Valley that included a picture of the old Experimental Gas Cooled Reactor (Attachment 3, page 9). There’s no contamination, no problems there. What’s the concern? Mr. McMillan – Part of that will be saved for historic purposes. You’re right, it’s never been used. Building 7602 does have some contamination in it, but it should be fairly simple. But this is not a high priority project.

Committee Reports

Board Finance & Process – Mr. Valunas said the committee met to formulate a recommendation on the DOE Oak Ridge EM Budget request to Congress.

The committee will not meet in April because a webinar of the EM SSAB Chairs’ meeting will be going on during the committee’s normal meeting time on April 25.

Mr. Hemelright said there was a teleconference on April 9 of committee members involved in planning the ORSSAB annual meeting. A draft agenda for the annual meeting on August 17 has been prepared. Mr. Hemelright said plans are to streamline the meeting from previous years. Jenny Freeman will be the facilitator again for the meeting. Mr. Hemelright said she will be contacting each board member for input that will be useful for the meeting.

EM – Mr. Hatcher reported that the committee met on March 20, and although he was absent he complimented committee vice chair Alfreda Cook for conducting the meeting. The main presentation at the meeting was on the Molten Salt Reactor Experiment. The defueled salts stored in the tanks at the facility apparently are eligible for disposal at the Waste Isolation Pilot Plant in New Mexico.

The committee reconsidered a recommendation on disposition of legacy waste that was returned to the committee after the March meeting. The committee agreed to revisions and resubmitted to the board for consideration.

The next meeting on April 17 will feature an update on the Uranium-233 Project at ORNL. Mr. McMillan will be the main presenter for that meeting.

Public Outreach – Ms. Hart reported that the committee met by teleconference on March 26. She said eight board members have volunteered to work at the ORSSAB booth for the Earth Day celebration on Saturday, April 27 at Bissell Park in Oak Ridge from 11 a.m. to 5 p.m.

She said the Secret City Festival will be June 21-22 also at Bissell Park. Volunteers are needed to staff that event as well.

The next meeting will be on Tuesday, April 23 at 5:30 at the DOE Information Center. Guests will include representatives from DOE and TDEC to talk about stream postings around the ORR. The committee is working on a publication to explain the stream postings to the public.

Stewardship – Mr. Martin reported the committee heard a presentation on the 2013 Remediation Effectiveness Report. There was discussion about having a presentation made on the report to the EM Committee. Mr. Martin also talked with Mr. Adler about possibly having a presentation made to the full board.

The committee will meet on April 16 and consider several draft recommendations.

Executive – Mr. Martin said the committee discussed a proposed vision statement that was considered at the March meeting, but was not approved by the board as written or as revised at the meeting. Mr. Martin said he would not submit a revised vision statement. He said Mr. Valunas suggested it could be something the board leadership might need additional information about and possibly discuss at the board's annual meeting in August.

The committee also discussed having simple up or down votes on recommendations when they come to the board for consideration. Mr. Martin said he did not favor that approach, but thought it was worthy of discussion by board members at the annual meeting.

The committee will meet on Thursday, April 25 at 5:30 at the DOE Information Center.

Mr. Martin reminded the board of the EM SSAB Chairs' webinar on April 25. He suggested members interested in participating should contact staff for information on how to register.

Announcements and Other Board Business

ORSSAB will have its next meeting on Wednesday, May 8 at 6 p.m. at the DOE Information Center.

Ms. Cange recognized Messrs. Landenberger and Yahr for their service as student representatives to board.

The minutes of the March 13, 2013, meeting were approved.

The Recommendations on Remaining Legacy Materials on the Oak Ridge Reservation and the FY 2015 DOE Oak Ridge EM Budget Request were tabled for lack of a quorum to vote on recommendations.

Federal Coordinator Report

Ms. Noe said there will be a reception on May 2 from 5-7 p.m. at Pollard Auditorium in Oak Ridge to celebrate accomplishments of the EM Program since its inception. There will be a follow up meeting on May 3 by the East Tennessee Economic Council, also at Pollard Auditorium from 7:30 to 9 a.m. It will feature Dave Huizenga, the DOE Senior Advisor for EM.

Ms. Noe said that new membership packages are progressing and it's estimated that Mr. Huizenga will sign off on them in a couple of weeks.

Additions to the Agenda

None.

Motions

Ms. Staley was not present for motions.

4/10/13.1

Mr. Jensen moved to approve the minutes of the March 13, 2013 meeting. Mr. Hatcher seconded and the motion **passed** with one abstention (Ms. Hagy, who was not in attendance at the March meeting).

The meeting adjourned at 7:50 p.m.

Action Items

Closed.

1. Ms. Jackson will determine the number of woman-owned companies that have DOE contracts in Oak Ridge. **Complete.** Karen Shears reported on April 8, 2013, that DOE has seven contracts, five purchase orders, and three blanket purchase agreements with women-owned contractors.

Attachments (3) to these minutes are available on request from the ORSSAB support office.

I certify that these minutes are an accurate account of the April 10, 2013, meeting of the Oak Ridge Site Specific Advisory Board.

Chuck Jensen, Secretary

David Martin, Chair DATE
Oak Ridge Site Specific Advisory Board
DM/rsg



Checklist

Recommendations and Comments Consideration for Board Approval

- I. **Title:** Recommendation on Remaining Legacy Materials on the Oak Ridge Reservation
- II. **In response to (why necessary):** To provide DOE Oak Ridge Environmental Management a recommendation regarding disposition of legacy materials on the Oak Ridge Reservation.
- III. **Committee:** Environmental Management
- IV. **Date submitted:** May 8, 2013
- V. **Date by which action is requested or required:** May 8, 2013
- VI. **Previous considerations:** none
- VII. **White Paper (if applicable):** none
- VIII. **References (if applicable):** Minutes of the November 14, 2012 ORSSAB meeting; minutes of the January 16, 2013, ORSSAB EM Committee meeting.



Many Voices Working for the Community

Oak Ridge Site Specific Advisory Board

Date

Susan Cange
Deputy Manager for Environmental Management
DOE-Oak Ridge Office
P.O. Box 2001, EM-90
Oak Ridge, TN 37831

Dear Ms. Cange:

**Recommendation #: Recommendation on Remaining Legacy Materials
on the Oak Ridge Reservation**

At our May 8, 2013, meeting the Oak Ridge Site Specific Advisory Board approved the enclosed recommendation on remaining legacy materials on the Oak Ridge Reservation.

The board recommends several points to consider concerning remaining legacy waste and materials, as well as several prioritized criteria concerning disposition of the waste.

Please see the enclosed recommendation for details. We look forward to your response by July 8, 2013, if at all possible.

Sincerely,

David Martin, Chair
DM/rsg

Enclosure

Page 2

Recommendation on Remaining Legacy Materials on the Oak Ridge Reservation

cc/enc:

Dave Adler, DOE-ORO

Cate Alexander, DOE-HQ

Fred Butterfield, DOE-HQ

Terry Frank, Anderson County Mayor

Connie Jones, EPA Region 4

Melissa Nielson, DOE-HQ

Melyssa Noe, DOE-ORO

John Owsley, TDEC

Mark Watson, Oak Ridge City Manager

Ron Woody, Roane County Executive

File Code 140



Oak Ridge Site Specific Advisory Board Recommendation: Recommendation on Remaining Legacy Materials on the Oak Ridge Reservation

Background

During the Oak Ridge Site Specific Advisory Board (ORSSAB) 2013 Planning Meeting, the Tennessee Department of Environment and Conservation asked the Board to consider alternatives for materials waiting for disposal. The Board agreed and asked the Department of Energy (DOE) to schedule a presentation during FY 2013. The DOE followed through with a presentation to the full board and a follow-up presentation to the Board's Environmental Management (EM) Committee.

At the November 14, 2012, ORSSAB meeting, DOE provided a presentation to the Board on the remaining legacy materials on the Oak Ridge Reservation, outlining what is considered remaining legacy material. Some of this material is considered waste and is best left for permanent disposal, while some is non-waste that has potential for re-use.

Most of the waste is under some type of regulatory requirement and must eventually be disposed. Until then, it can remain as is unless some overriding reason to act on it arises.

On January 16, 2013, DOE provided a follow-up to the ORSSAB EM Committee. The presentation went into more detail about several of the remaining waste and non-waste legacy materials, including but not limited to:

- Sodium shields stored at Building K-1313-F at East Tennessee Technology Park (ETTP)
- Sodium shields stored at Oak Ridge National Lab (ORNL)
- Shielded Transfer Tanks stored under a shed in Melton Valley
- Disposal Area Remedial Action soils stored under cover in Bear Creek Valley
- 28 vaults of low-level waste stored on the concrete 7822-K Pad at ORNL

These legacy materials are considered to be in safe storage, have no future mission, and are a cost liability to keep. The following points were made regarding remaining legacy materials:

- Legacy waste and material disposition represent a significant future cost, particularly for materials dependent on offsite disposal.
- Currently legacy waste and materials are being safely stored and monitored.
- Some materials present significant disposal or transportation challenges.
- Disposition efforts compete for funding with building demolition and environmental remediation efforts.
- An ORSSAB recommendation on criteria to use in setting disposition priorities is encouraged.
- ORSSAB input on potential near-term actions regarding legacy material disposition is encouraged.

Recommendation

Using the information provided at the November 2012 ORSSAB meeting and the January 2013 EM Committee meeting, the following recommendation is provided to the DOE Oak Ridge EM Program regarding remaining legacy materials.

In the near term:

- Maintain a table of legacy materials that includes description, current locations, and recognized obstacles to disposition.
- Where applicable evaluate potential for declassification of materials as a means to facilitate disposal or reuse.
- Consider moving materials currently stored outdoors into secure indoor areas to better control access and reduce damage from the elements.
- Characterize the Disposal Area Remedial Action soils to determine whether some or all can be used as fill material in the onsite waste disposal facility.
- Investigate whether waste materials stored in vaults on the 7822-K Pad at ORNL can be processed for disposal through the Transuranic Waste Processing Center.
- Begin the planning process for disposition of the cesium casks discovered during cleanup of the K-770 area at ETPP.

The ORSSAB recommends the following prioritized criteria for the disposition of Remaining Legacy Materials on the Oak Ridge Reservation:

1. Dispose to mitigate pressing environmental concerns.
2. Dispose to avoid regulatory liabilities.
3. Dispose while disposal paths are available.
4. Dispose when there is a high cost to maintain in place.
5. Dispose only when reuse options are prohibitive.



Checklist

Recommendations and Comments Consideration for Board Approval

- I. **Title:** Recommendations on Fiscal Year 2015 DOE Oak Ridge Environmental Management Budget Request
- II. **In response to (why necessary):** At the request of DOE Oak Ridge Environmental Management to provide a recommendation on the FY 2015 budget request
- III. **Committee:** Board Finance & Process Committee
- IV. **Date submitted:** May 8, 2013
- V. **Date by which action is requested or required:** May 8, 2013
- VI. **Previous considerations:**
- VII. **White Paper (if applicable):**
- VIII. **References (if applicable):**



Many Voices Working for the Community

Oak Ridge Site Specific Advisory Board

_____, 2013

Mark Whitney
Oak Ridge Office of Environmental Management
U.S. Department of Energy
P.O. Box 2001, EM-90
Oak Ridge, TN 37831

Dear Mr. Whitney:

Recommendation ____: Recommendations on Fiscal Year 2015 DOE Oak Ridge Environmental Management Budget Request

At our May 8, 2013, meeting, the Oak Ridge Site Specific Advisory Board approved the enclosed recommendations regarding the FY 2015 DOE Oak Ridge Environmental Management Program budget request.

We appreciate your consideration of our recommendations and look forward to receiving your response by July 8, 2013.

Sincerely,

David Martin, Chair
DM/plo

Enclosure

cc/enc:

Dave Adler, DOE-ORO
Cate Alexander, DOE-HQ
Fred Butterfield, DOE-HQ
Connie Jones, EPA Region 4
Terry Frank, Anderson County Mayor
Melissa Nielson, DOE-HQ
Melyssa Noe, DOE-ORO
John Owsley, TDEC
Mark Watson, Oak Ridge City Manager
Ron Woody, Roane County Executive
File Code 140



Oak Ridge Site Specific Advisory Board Recommendation ___: Recommendations on the FY 2015 DOE Oak Ridge Environmental Management Budget Request

Background

Each year the U.S. Department of Energy (DOE) Environmental Management (EM) Program develops its budget request for the fiscal year two years beyond the current fiscal year. It uses budget requests from the various DOE field offices in developing the EM Program budget request to the President.

DOE EM Headquarters typically issues guidelines to the field offices advising them how much budget they should reasonably expect when developing their fiscal year +2 budget requests to headquarters. The field offices then brief the public, the regulatory agencies, and the Oak Ridge Site Specific Advisory Board (ORSSAB) and seek input from them regarding budget requests.

Discussion

In February 2013, DOE briefed ORSSAB on the current budget picture and described near-term, mid-term, and long-term priorities. Near-term priorities (2013–2015) are:

- Complete demolition of the K-25 Building
- Continue direct disposition of uranium-233 from Oak Ridge
- Process and dispose of transuranic (TRU) waste
- Continue planning for a Y-12 National Security Complex mercury treatment system
- Prepare the K-27 Building for demolition

Mid-term (2016–2026) priorities include:

- Complete the processing and disposition of remaining uranium-233
- Complete the processing and disposition of TRU wastes from Oak Ridge
- Complete the closure of East Tennessee Technology Park (ETTP)
- Build and operate the Y-12 mercury treatment system
- Begin demolition of old Y-12 mercury use facilities

Long-term (2027–2043) priorities include completing cleanup of Y-12 and Oak Ridge National Laboratory (ORNL).

In March 2013, the ORSSAB Board Finance & Process Committee met with DOE for more in-depth discussion, which included a review the annual budget coordination process and discussion of Environmental Protection Agency (EPA)/Tennessee Department of Environment and Conservation (TDEC) prioritization comments, DOE's planning case priorities, and the Oak Ridge Reservation EM baseline (Figure 1).

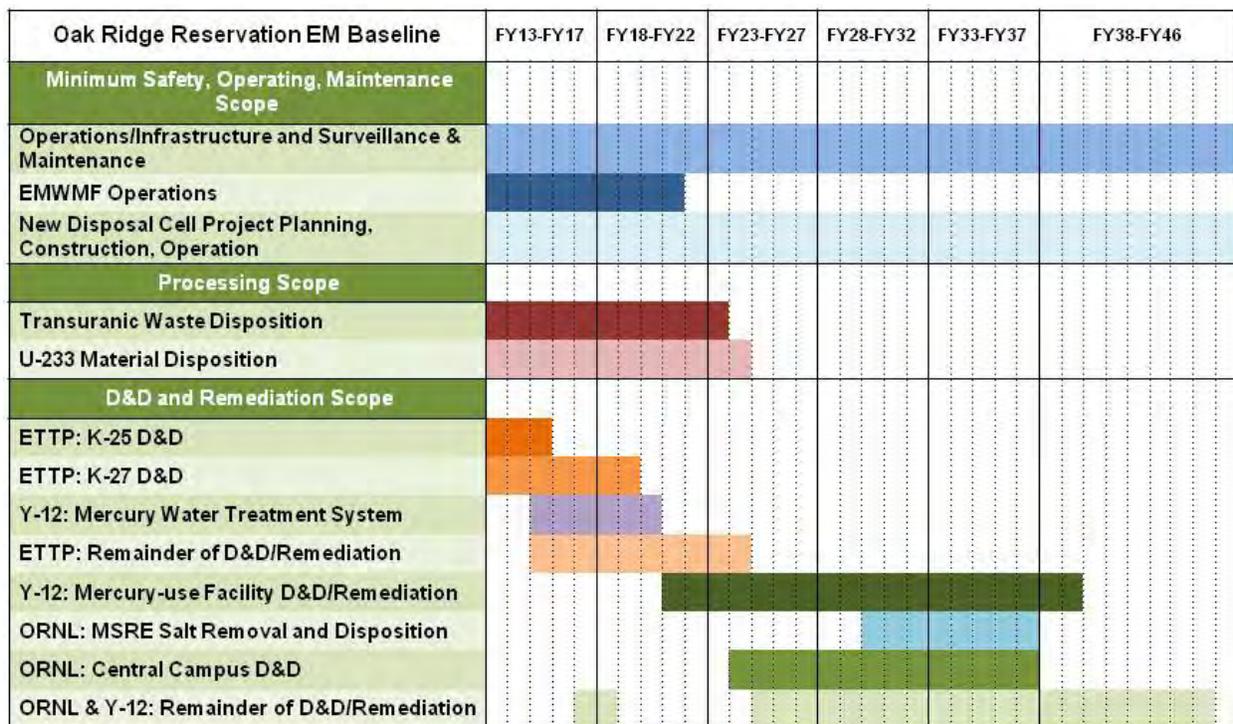


Figure 1. Oak Ridge Reservation baseline.

According to DOE, EPA/TDEC prioritization comments include:

- Completion of the K-25/K-27 decontamination and decommissioning (D&D) project is the highest priority for ETTP
- EPA/TDEC generally agree with placing priority on completing final ETTP record of decision scope for outlying areas (Zone 1)
- EPA/TDEC disagreed on priorities for soil and groundwater work in the industrialized portion of ETTP (Zone 2)
- Completion of the Outfall 200 Project is the highest priority for Y-12 (prior to mercury building D&D)
- EPA/TDEC disagreed on priorities for the Molten Salt Reactor Experiment Salt Removal Project at ORNL
- EPA placed priority on multiple groundwater projects interior to the Oak Ridge Reservation; TDEC's priority was on offsite groundwater release risks

Through evaluation of these priorities and EPA/TDEC comments on them, ORSSAB submits the following recommendations on the FY 2015 budget request.

Recommendations

ORSSAB has met with DOE representatives to determine from the ORSSAB's perspective whether the priorities reflected in the 2015 EM budget request are consistent with the board's understanding of the EM Program's mission for the Oak Ridge Reservation. After considering all of the inputs, the ORSSAB endorses local DOE management's current strategy for cleanup in the Oak Ridge area and, therefore, its 2015 fiscal year budget request.

The endorsement of this budget and the resulting rate of progress is not, however, without reservation. Any delays in cleanup generally increase the eventual life-cycle costs and human risks involved with the process. Given the population density of the effected Oak Ridge area, the potential impacts of delay are

substantial. The negative effects of previous delays are well chronicled. Structures that are weakened by decay pose greater hazards during demolition. Dispersed contaminants are more difficult to clean up. Time is not our friend. When programs are delayed, financial costs and environmental and safety risks escalate. The board's endorsement of the current budget reflects its recognition of the current financial management challenges of the federal government. We recognize that a certain amount of fiscal restraint is in our country's best interests. If more resources are available, the EM budget for Oak Ridge should be increased accordingly.

The major change in this year's budget request is the elevation of the priority of the Outfall 200 Project at Y-12 for processing mercury. The board believes that this adjustment will enable a more expedient solution to the mercury contamination and is, therefore, prudent. The other specific priorities are consistent with previous submittals and keep Oak Ridge on the path to a better environment. We respectfully request your favorable action on the 2015 budget request.

Recommendation Response Tracking Chart for FY 2013

	Date	To	Recommendation	Originating Committee	Response Date	Response Status	Committee Review of Response
1.	10/10/12	Susan Cange	211: Recommendation on Availability of DOE Environmental Management Documents	EM	1/8/13	Complete: DOE is working with information technology to improve search capabilities. The 'search tip' function has been reactivated. On request, training can be provided to access information. DOE Information Center staff is always available to provide documents. DOE is working to ensure documents are available at the information center no later than the date when availability is announced.	Complete: EM Committee accepted recommendation response at its January 2013. It asks that DOE notify the board when upgrades to the system are complete.

EM Project Update

ETTP	March	April
Zone 1 Final ROD	Comments were received from the regulators on the D2 RI/FS.	Comments raised by the regulators review of the D2 RI/FS cannot be resolved by the project team and have been elevated to the Supervisory Management Team for resolution.
Zone 2 ROD	The EU Z2-30 (K-1070-B Burial Ground) PCCR was approved by the regulators.	Initiated work on the EU Z2-35 (CNF) PCCR for the No Further Action decisions on sumps.
Chromium Reduction Removal Action		The RmAR for Hexavalent Chromium Releases into Mitchell Branch was approved by the regulators.
Groundwater Strategy	Held the second groundwater strategy workshop for Y-12, Chestnut Ridge, and ETTP.	Held the third groundwater strategy workshop. The completion of this workshop finishes the watershed specific reviews.
K-25/K-27 D&D	Closeout and disposal of debris from the K-25 East Pad air plenums is proceeding. Began filling of the trenches with gravel and capping with concrete.	Cleanout of the K-25 East Pad air plenums and debris disposal was completed, as well as the filling of the trenches with gravel and capping with concrete.
	Began mining the first large diameter surge tank at K-25. Vent and purge of all process gas piping was completed.	Mining of the first large diameter surge tank at K-25 was completed, with the second of these tanks 50 percent completed. The overall surge tank disposition (eight tanks) is 66 percent complete.
	Foaming of process pipe is 39 percent complete in the five remaining K-25 units requiring foaming.	Foaming of process pipe is 59 percent complete in the five remaining K-25 units requiring foaming.
	Demolition of the K-25 East Wing wall and grading and sloping of the bank are complete, as well as placement of topsoil and hydro seeding.	Disposal of debris from the last unit of the K-25 North Tower is 57 percent complete, and total disposal is 84 percent complete.
	Removal of process gas piping in the Tc-99 area is 97 percent complete. All piping except for what is on the operations floor has been removed. Installation of platforms to allow access to the piping has begun.	Demolition of the K-25 North Tower retaining wall is 65 percent complete. Cleaning of the East Pad to allow surveying and sampling is now halfway complete.
		All vent and purge activities on the K-27 cell floor are completed. Additionally, issues associated with the technical safety requirements for foaming activities in the facility were resolved.
Remaining Facilities	The K-33 Tie Line removal project has started demolition. Characterization activities are in progress, sample collection is complete, and lab analysis is in progress.	The K-33 Tie Line removal project completed demolition of the first 200 out of a total of 800 feet of piping and support structure.
ORNL	March	April
Central Campus Cleanout and Stabilization		Completed removal of legacy material and stabilization of the 4501-D hot cell. This work enabled ORNL to utilize a hot cell in the 4501 facility that had previously been unavailable due to legacy material that remained in the cell. All work was performed safely and material removed was packaged for shipment of the waste disposal facility.

EM Project Update

ORNL	March	April
U-233 Project		A project overview was provided to Nevada Congresswoman Dina Titus. The briefing provided her with a better understanding of the project transportation and disposal strategies for the Consolidated Edison Uranium Solidification Program material.
Y-12	March	April
UEFPC ROD, Ph. 1	The Mercury Action Strategy Plan was submitted to the regulators for review.	Kelly Perry with Senator Lamar Alexander's office was given a briefing and tour of the mercury cleanup work at the Y-12 Site. She was briefed on the historical process that utilized mercury, the release of mercury into the environment, and the cleanup activities that have been ongoing since the mid 1980s.
Off-Site Cleanup/Waste Management	March	April
EMWMF	The EMWMF RD Report was approved by the regulators. The FY 2013 EMWMF PCCR (containing the former CARAR) was submitted to the regulators for review.	
Central Neutralization Facility	Cleanout of seven sumps was completed, along with Zone 2 sampling of the sumps. Cleanout of the clarifier was also completed, including removal of the final waste from the clarifier cone.	
Environmental Baseline Survey		EPA approved the recommendation of No Further Investigation (NFI) for approximately 4,600 acres surrounding ETTP. The approval is the culmination of an effort that began more than 5 years ago to complete the determinations.
TRU Waste Processing Center		Both the Vulnerability Assessment and the Security Plan for the Solid Waste Storage Area (SWSA) 5 were signed. The Safety Design Strategy for the Sludge Buildout project was completed.
Water Quality Program	The Remediation Effectiveness Report was submitted to the regulators. This report evaluates the performance of completed CERCLA actions and ongoing stewardship activities.	

Abbreviations/Acronyms List for Environmental Management Project Update

AM – action memorandum

ARRA – American Recovery and Reinvestment Act

BCV – Bear Creek Valley

BG – burial grounds

BV- Bethel Valley

CARAR – Capacity Assurance Remedial Action Report

CBFO – Carlsbad Field Office

CERCLA – Comprehensive Environmental Response, Compensation
and Liability Act

CEUSP – Consolidated Edison Uranium Solidification Project

CD – critical decision

CH – contact handled

CS – construction start

CY – calendar year

D&D – decontamination and decommissioning

DOE – Department of Energy

DSA – documented safety analysis

DQO – data quality objective

EE/CA – engineering evaluation/cost analysis

EM – environmental management

EMWMF – Environmental Management Waste Management Facility

EPA – Environmental Protection Agency

ETTP – East Tennessee Technology Park

EU – exposure unit

EV – earned value

FFA – Federal Facility Agreement

FPD – federal project director

FY – fiscal year

GIS – geographical information system

GW – groundwater

GWTS –groundwater treatability study

IROD – Interim Record of Decision

LLW – low-level waste

MLLW – mixed low-level waste

MSRE – Molten Salt Reactor Experiment

MV – Melton Valley

NaF – sodium fluoride

NEPA – National Environmental Policy Act

NPL – National Priorities List

NNSS – Nevada National Security Site (new name of Nevada Test Site)

NTS – Nevada Test Site

ORNL – Oak Ridge National Laboratory

ORO – Oak Ridge Office

ORR – Oak Ridge Reservation

ORRS – operational readiness reviews

PaR – trade name of remote manipulator at the Transuranic Waste Processing Center

PCB - polychlorinated biphenyls

PCCR – Phased Construction Completion Report

PM – project manager

QAPP – Quality Assurance Project Plan

RA – remedial action

RAR – Remedial Action Report

RAWP – Remedial Action Work Plan

RCRA – Resource Conservation Recovery Act

RDR – Remedial Design Report

RER – Remediation Effectiveness Report

RH – remote handled

RI/FS – Remedial Investigation/Feasibility Study

RIWP – Remedial Investigation Work Plan

RmAR – Removal Action Report

RmAWP – Removal Action Work Plan

ROD – Record of Decision

RUBB – trade name of a temporary, fabric covered enclosure

S&M – surveillance and maintenance

SAP – sampling analysis plan

SEC – Safety and Ecology Corp.
SEP – supplemental environmental project
STP – site treatment plan
SW – surface water
SWSA – solid waste storage area
Tc – technetium
TC – time critical
TDEC – Tennessee Department of Environment and Conservation
TRU – transuranic waste
TSCA – Toxic Substances Control Act
TWPC – Transuranic Waste Processing Center
U – uranium
UEFPC – Upper East Fork Poplar Creek
VOC – volatile organic compound
WAC – waste acceptance criteria
WEMA – West End Mercury Area (at Y-12)
WHP – Waste Handling Plan
WIPP – Waste Isolation Pilot Plant
WRRP – Water Resources Restoration Program
WWSY – White Wing Scrap Yard
Y-12 – Y-12 National Security Complex
ZPR – Zero Power Reactor

FY 2013 Travel Opportunities

Meeting/Event	Dates	Location	Reg. Cost	Website	Deadline to Submit Requests
Fall Chairs Meeting (Attendees: Hemelright, D. Martin, Paulus)	Oct. 2-3, 2012	Washington, D.C.	none	http://emssabchairsmeetingoctober2012.eventbrite.com/	Aug. 23, 2012
Perma-Fix Mixed Nuclear Waste Management Forum (Attendees: Hemelright, Holmes, Kasten)	Dec. 10-13, 2012	Nashville	\$500	none	Oct. 25, 2012
Intergovernmental Meeting with DOE (Attendees: None)	Dec. 12-14, 2012	New Orleans			Oct. 25, 2012
Waste Management Symposium (Attendees: Hemelright, F. Martin)	Feb. 24-28, 2013	Phoenix	\$995	www.wmsym.org	Closed Nov. 15, 2012
Spring Chairs Meeting (Attendees: Hatcher, Hemelright, D. Martin, Staley)	April 23-25, 2013	Richland, WA	none	none	Jan. 24, 2013
15th National Brownfields Conference (Attendees: None)	May 15-17, 2013	Atlanta	\$125	www.brownfieldsconference.org/en/home	Jan. 24, 2013
National Environmental Justice Conference & Training	April 3-5, 2013	Washington, D.C.	none	http://thenejc.org/?conference=national-environmental-justice-conference-and-training-program	March 5, 2013
2013 EPA Community Involvement Training Conference (Tentative requests: Staley)	July 30-Aug.1, 2013	Boston	none	www.epa.gov/ciconference/index.htm	June 26, 2013
RadWaste Summit (Tentative requests: Cook)	Sept. 3-6, 2013 (tentative)	Las Vegas	?	?	?
Western Waste Site Tour (Tentative requests: Cook, Hatcher, Staley)	Fall 2013	Waste Isolation Pilot Plant, Nevada Nat'l Security Site	none	none	
Fall Chairs Meeting (Tentative requests: Cook, Hemelright)	?	Portsmouth, OH	none	none	