

Oak Ridge Site Specific Advisory Board Monthly Meeting



Wednesday, February 11, 2015

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 – Sufficient Waste Disposal Capacity on the Oak Ridge Reservation – *to be distributed at meeting*

CALENDARS

1. February
2. March (*draft*)

BOARD MINUTES/RECOMMENDATIONS & MOTIONS

1. January 14, 2015, draft meeting minutes
2. Proposed Bylaws Revision to the Process for Approving Recommendations
3. Proposed Bylaws Revision to the Process for Amending ORSSAB Bylaws

REPORTS & MEMOS

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



**Oak Ridge Site Specific Advisory Board
Wednesday, February 11, 2015, 6:00 p.m.
DOE Information Center
1 Science.gov Way, Oak Ridge, Tenn.**

AGENDA

- I. Welcome and Announcements (D. Hemelright) 6:00–6:05
 - A. Next Meeting: Wednesday, March 11
Presentation Topic: State of the Oak Ridge Environmental Management Program/FY 2016
Budget and Prioritization Planning
 - B. Introduction of New Members (S. Cange)
- II. Comments from the Deputy Designated Federal Officer, and the DOE, EPA, and TDEC
Liaisons (S. Cange, D. Adler, C. Jones, K. Czartoryski)..... 6:05–6:20
- III. Public Comment Period (A. Chourey)..... 6:20–6:30
- IV. Presentation: Sufficient Waste Disposal Capacity on the Oak Ridge
Reservation (Laura Wilkerson)..... 6:30–7:05
Question and Answer Period 7:05–7:20
- BREAK..... 7:20–7:30
- V. Call for Additions/Approval of Agenda 7:30
- VI. Motions 7:30–7:35
 - A. January 14, 2015, Meeting Minutes (L. Hagy)
 - B. Second Reading—Amendment to the ORSSAB Bylaws to Change the Procedure
for Voting on Recommendations (D. Hemelright)
 - C. Second Reading—Amendment to the ORSSAB Bylaws to Change the Procedure
for Amending the Bylaws (D. Hemelright)
- VII. Responses to Recommendations & Comments (D. Adler)..... 7:35–7:40
- VIII. Committee Reports..... 7:40–7:45
 - A. Environmental Management/Stewardship (B. Hatcher/C. Staley)
 - B. Executive (D. Hemelright)
- IX. Federal Coordinator’s Report (M. Noe) 7:45–7:50
- X. Additions to Agenda & Open Discussion..... 7:50–8:00
- XI. Adjourn 8:00



Oak Ridge Site Specific Advisory Board

February 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10	11 Monthly SSAB Meeting 6 p.m	12	13	14
15	16 President's Day DOE/Staff Holiday	17	18 Environmental Management & Stewardship Committee 6 p.m.	19	20	21
22	23	24	25 Executive Committee 6 p.m.	26	27	28

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

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	Sundays at 1 p.m.
Lenoir City: Charter Cable Channel 3	Wednesdays, 4 p.m.
Oak Ridge: Channel 12	Monday, February 23, 7 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

March 2015

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22	23	24	25 Budget & Process Committee 5:30 p.m. Executive Committee 6 p.m.	26	27	28
29	30	31				

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DRAFT

Many Voices Working for the Community



Oak Ridge Site Specific Advisory Board

Unapproved January 14, 2015, Meeting Minutes

The Oak Ridge Site Specific Advisory Board (ORSSAB) held its monthly meeting on Wednesday, January 14, 2015, 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

Alfreda Cook

Bob Hatcher

David Hemelright, Chair

Howard Holmes

Jennifer Kasten

Jan Lyons, Vice Chair

Fay Martin

Greg Paulus

Belinda Price

Coralie Staley

Scott Stout

Wanfang Zhou

Members Absent

Noel Berry

Lisa Hagy, Secretary

Donald Mei

Mary Smalling

Liaisons, Alternate Deputy Designated Federal Officer, and Federal Coordinator Present

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

Kristof Czartoryski, Liaison, Tennessee Department of Environment and Conservation (TDEC)

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

Melyssa Noe, ORSSAB Federal Coordinator, DOE-ORO

Others Present

Lynn Bumgardner

Wendy Cain, DOE Portfolio Federal Project Director

Spencer Gross, ORSSAB Support Office

Claire Rowcliffe, Student Representative

David Martin

Pete Osborne, ORSSAB Support Office

Eighteen members of the public were present.

Liaison Comments

Mr. Adler – Mr. Adler said the evening's presentation was on the proposed plan for soils remediation in Zone 1 at East Tennessee Technology Park (ETTP). He said it is an important topic because it is an effort to define all remaining environmental land use restoration and land use

control requirements for about 1,400 acres of land in Zone 1 at ETTP. He said this topic is one of the important issues that DOE is seeking input from ORSSAB for FY 2015.

Mr. Adler said there are no open recommendations from the board. However, he said a recommendation submitted in 2014 (Recommendation 222: Recommendation on Additional Off-Site Groundwater Migration Studies) did not receive a complete response from DOE. That component was that DOE should examine existing well data for use in formulation of future groundwater investigation activities. Mr. Adler said that has been done. He said DOE is using a process called data quality objective setting with EPA and TDEC, which begins with the canvassing of existing wells, looking at the data, and using that data to decide where to put new wells.

Mr. Adler said DOE has responded to Recommendation 225: Recommendation on DOE Oak Ridge GIS Fact Sheets. The recommendation asked that fact sheets in the DOE geographical information system be updated to include future planned decisions and actions. Mr. Adler said the fact sheets have been updated to that effect.

Ms. Jones – Ms. Jones agreed with Mr. Adler's comments about Zone 1 and had no other comments.

Mr. Czartoryski – no comments.

Public Comment

Mr. Martin said he hoped DOE will provide good advice on what is feasible for soil remediation in Zone 1 at ETTP. He suggested DOE should consult with DOE personnel in other areas of the country that have done similar work and share that information with the public.

Presentation

Ms. Cain's presentation was on the ETTP Zone 1 Final Soils Proposed Plan Status. The main points of her presentation are in Attachment 1. She began by saying that the end state for ETTP is to become a commercial industrial park. The end-state uses for Zones 1 and 2 at ETTP are for unrestricted industrial use to 10 feet.

She showed an overhead photograph and map of ETTP (Attachment 1, pages 3 and 4). Zone 2 is the main industrial area of ETTP where uranium enrichment activities were conducted until the mid-1980s. It is an area of about 800 acres. The area around the plant is Zone 1 (Attachment 1, page 4). Light industrial and waste management activities are conducted in Zone 1. Ms. Cain said much of Zone 1 was not impacted by operations and support activities conducted in Zone 2.

Originally, a remedial investigation/feasibility study (RIFS) included both zones and all environmental media. However, work that would have eventually led to a record of decision (ROD) for all media at ETTP was postponed to conduct a groundwater treatability study. A decision was made in 2010 to proceed toward a final ROD for all media just in Zone 1. Because of some disagreements among DOE, EPA, and TDEC on the Zone 1 RIFS, in 2013 a decision was made to defer Zone 1 surface and groundwater decisions and proceed with a Zone 1 ROD for soils only. In 2014 DOE issued a proposed plan (DOE/OR/01-2648&D1) for Zone 1 Soils. After receiving comments on the first draft from EPA and TDEC, a second draft (DOE/OR/01-2648&D2) was issued in November 2014.

Ms. Cain said Zone 1 is divided into four geographical areas. The area to the north is the 901 area (Attachment 1, page 6). Duct Island is a peninsula south of 901 and southwest of Zone 2. The Powerhouse Area is southwest of Duct Island across Poplar Creek, and the K-1000 Area is east of Duct Island. She said actions for Zone 1 are categorized in those four areas.

A number of actions have been taken over the years in Zone 1. A list is on page 6 of Attachment 1.

Ms. Cain said an interim ROD for Zone 1 was signed in 2002 that established soil cleanup goals for worker and groundwater protection. The goal was for unrestricted industrial use in the upper 10 feet of soil (Attachment 1, page 7). The goal also was to identify and remove sources of groundwater contamination. Considerable progress has been made. Page 8 of Attachment 1 shows areas where cleanup is complete and where cleanup is ongoing. Goals were met in most areas. However, areas not meeting the interim ROD goals are the Contractor Spoils Area, the K-720 Fly Ash Pile, K-770 Scrap Yard, and the Duct Bank Corridor. Those areas were deferred for action in a Zone 1 Soils Final ROD.

Ms. Cain said the final Zone 1 RIFS was built upon what was begun in the sitewide RIFS. It incorporates the Zone 1 interim ROD remedial actions and evaluates others actions taken that were not part of the ROD for Zone 1 (Attachment 1, page 9). Risk assessments were performed for industrial workers, recreational users, and terrestrial wildlife. Alternatives were developed those four areas that did not meet the Zone 1 interim ROD goals.

The remedial investigation conclusions indicated that unrestricted industrial use was also protective for recreational use. There are potential risks that are indentified in the RIFS and also in the proposed plan (Attachment 1, page 10). No unacceptable risks were identified for groundwater.

The key issues to be addressed by the ETPP Zone 1 ROD are to identify what remedies may be needed for the four areas not meeting the interim ROD goals, selecting the final land use controls for Zone 1 and determining a path forward for areas of ecological interest (Attachment 1, page 11).

Ms. Cain went through the list of remedial action objectives (RAOs) for the Zone 1 Soils ROD (Attachment 1, page 12). To achieve the RAOs, DOE developed soil remediation alternatives (Attachment 1, page 13). The preferred alternative that is suggested in the proposed plan was Alternative 2: additional land use controls and cover for the K-770 Area, Contractor Spoils Area, and Duct Bank Area, and removal of small ecological risk areas. Additional detail of Alternative 2 is on page 14 of Attachment 1.

The rationale for proposing Alternative 2 is noted on page 15 of Attachment 1.

Ms. Cain said the area of Zone 1 is attractive for industrial redevelopment because the majority of it was not impacted by activities in Zone 2. Work has been underway for several years to transfer parcels of Zone 1 for redevelopment. Page 16 of Attachment 1 shows progress that has been made to transform ETPP into a private industrial park. Work continues to prepare Duct Island and the Powerhouse Area for redevelopment. She said the final actions taken in the Zone 1 ROD will make the Powerhouse Area particularly appealing for redevelopment because it is flat, has access to Highway 58, and has rail and water access (Clinch River). Ms. Cain said the only active DOE project in the Powerhouse Area is the storage of sodium shields in the K-1313 area.

The path forward for the proposed plan and eventually the final Zone 1 ROD for soils is on page 20 of Attachment 1. She said comments from EPA and TDEC will result in some revisions to the proposed plan and a D3 will be issued. With regulator approval of the D3, the proposed plan will be made available for public comment and input in the April/May timeframe. DOE will continue to work with the regulators to develop the process for incorporating land use controls into the final ROD. She said the schedule is to incorporate public input and receive regulatory approval of the proposed plan and final ROD by December 2015. Implementation of the selected remedial action for soils in Zone 1 would begin in January 2016.

The sitewide ROD for groundwater and surface water for all of ETPP will be developed at a later date.

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

Mr. Bell – What is the basis for the ROD criteria? Mr. Adler – We need to have criteria that ensure protectiveness. We have to leave land in a safe condition for its intended reuse. From there we look at contaminants that are present and look at risk-based criteria for the contaminants in the soil for three reasons: 1) to make sure an industrial worker is not put in harm's way, 2) make sure there is not a sufficient concentration of contaminants in the soil column to serve as a source of continued groundwater contamination, and 3) and make sure flora and fauna are not impacted. There we tried to come up with criteria to make sure the ecosystem was healthy. Since we hope to have the area as an industrial park, the wildlife considerations are not as great as they might be for a park, for example. Mr. Bell – What contaminants are in Zone 1 that could be of concern? Mr. Adler – One of the main things we looked for was uranium. There was not a lot of uranium in the soils because of the nature of uranium enrichment in a vacuum. We found a little here and there. Some of the power distribution systems come with heavy metal contaminants. And because it was an industrial site there were solvents that we looked for. We excavated about 80,000 cubic yards of material. On a site that large that is not a lot of soil we removed to meet our criteria.

Mr. Bell – What happened to the ash from the power plant? Mr. Adler – The ash is stored on site. Mr. Bell – What contaminants related to the power plant were cause for concern? Mr. Adler – We spend a lot of time and money to prove the absence of problems. We start out with an area that's been used for industrial purposes during a war effort with minimal regulation. So we do a lot characterization of the land to get the data, which in most land areas prove to be unimpacted. In some isolated areas where there may have been some industrial activity or some disposal activity we find some things and clean them up. But most of the characterization shows the area to be clean.

Mr. Bell – The sodium shields you mention came from the Oak Ridge Reactor? Is the sodium still in the shields? Ms. Cain – Yes. Mr. Bell – What are the plans for getting rid of the sodium? Ms. Cain – We are in the process of evaluating several options. We have a couple of promising options that we're evaluating to see what we can afford to do and how quickly it can be done. We're targeting the end of the fiscal year to have an answer about where it goes.

Mr. Hatcher – What will happen in terms of long-term enforcement to ensure an industry doesn't dig below 10 feet? Mr. Adler – While DOE is forever responsible to ensure cleanup objectives are met, the land itself will change ownership. We expect to transfer the land to the Community Reuse Organization of East Tennessee (CROET), which will in turn market the land to industry. DOE will retain an excavation permitting program, which will require that any excavation below the depth that has been cleared must include interaction with DOE to identify any protective measure needed. We hope for most of the site we will confirm that soil below 10 feet is just as clean as the soil above and there will be no need for special measures. There will be some periodic monitoring, as well. We have a program that is done every year and a more formal evaluation every five years to look at implemented remedies, including land use controls, to see if requirements are being adhered to. We aren't going to leave anything in place that could result in an acute hazard. Anything we leave in place, which is minimal, would be something that could lead to a risk over a period of exposure. Controls and monitoring of controls are overseen by EPA and TDEC.

Mr. Hatcher – What is the depth of the duct work that is going to stay in place, is it below 10 feet? Mr. Adler – No. The duct work was used to carry power from the Powerhouse Area back to the gaseous diffusion plant. There is asbestos associated with the duct work. They are located about 2

feet below surface. In the case of the duct work, we will have to have excavation controls below 2 feet. Some future developer may want to go below 2 feet, and if they do they will need to manage the work. Anything they generate as part of the work must be compliant with worker safety and waste disposal. DOE would know that because the developer would have to get an excavation permit.

Ms. Price – The area of the oil storage tanks has asbestos in the soil. Is there consideration of bank erosion of the adjacent river when an additional 2 feet of soil is added to the surface? Mr. Adler – We don't have a complete answer to that yet, but the answer will be engineered measures to ensure a reasonable level of control is placed over the asbestos. It's important to understand that the levels of asbestos there are relatively low. There are a lot of naturally occurring forms of asbestos in creeks around the country. The problem with asbestos is when it dries it becomes airborne and is inhaled. So if asbestos got into the Clinch River and mixed with sediments it would not be a health issue. But the idea is to contain the material on site.

Ms. Cook – Of the 1,400 acres in Zone 1 about 40 acres will be remediated under this proposed plan. Does that mean the balance of the 1,400 acres is ready for reindustrialization? Ms. Cain – The other exposure units have been cleared. There is a regulatory process to approve the transfer for some the exposure units, but that is proceeding. Mr. Adler – In the big picture, most of the soil is clean or has been cleaned up, with the exceptions of the areas we're talking about that we believe are too difficult to clean up. Ms. Cook – Is there a plan that would prevent backflow of contamination in the duct work from Zone 2 into Zone 1? Mr. Adler – The ducts have already been grouted to prevent that.

Mr. Paulus – Is DOE involved in the solicitation of industry to come here with incentives, with partnerships with the state, county, or city, or once it's released it's out of DOE's hands with the exception of long-term monitoring? Mr. Adler – The model we employ is DOE cleans up the land, regulations are passed and approved by EPA and TDEC, and then DOE transfers to CROET. We usually transfer it at no cost. CROET then has an asset it can market and make some money. However, we do have some property that has not been transferred, and when there is interest in that property I do get involved. I take people on tours and answer questions about environmental suitability, and so on. But once the land is transferred DOE is not involved in the marketing of it. Mr. Paulus – Does DOE have any say on what kind of activity is brought into the area? Mr. Adler – When the land is transferred it is done by quit claim deed, and DOE can put into that deed any restrictions necessary for the protection of the remedy. For example, we can say an industry can't use the groundwater or build a daycare center on site. So we can place limits on the type activities that take place.

Ms. Staley – Is it correct that there can be no use of groundwater or surface water? Mr. Adler – There would be no allowance of groundwater use, and typically there are restrictions on surface water that is entirely on site. But water in the Clinch River is available for use because there are no contamination issues. Ms. Staley – Will there be signage advising of those restrictions? Mr. Adler – If signage is deemed necessary, there will be signage. If there is a pond on site that we think people shouldn't swim in or fish in there will be signs.

Ms. Staley – Can you give examples of other sites that have done something similar to this? Are we working with them to see if we're in line with things they looked at? Mr. Adler – There are other sites, but within DOE, Oak Ridge is in the forefront of this. We are the furthest along in attempting to reindustrialize a site. There is the Mound Site in Ohio that was cleaned up and transferred to an industrial park authority. I've been there and swapped notes with them. Within the Department of Defense when bases are closed down there are efforts to replace jobs lost. But I think we are at the

forefront when it comes to the use of formerly utilized federal lands, particularly those associated with some type of hazardous material.

Ms. Staley – I would like to know the reason or reasons Alternative 2 was chosen as the preferred alternative. Was it just cost? Ms. Cain – It's a combination of cost and the effectiveness of the protections. Mr. Adler – In the case of asbestos, to put workers in there and dig it up is very expensive. It really is a risk/cost benefit analysis. If it was inexpensive and risk free, we'd dig it up. We've spent millions to clean most of Zone 1, but in these cases, in our judgment, they should be managed in place. Ms. Staley – That concerns me because there are not many examples of where land has been turned over for public or private use. I'm also concerned that is no barrier to keep contaminants in Zone 2 from migrating to Zone 1. Is that correct? Mr. Adler – In Zone 2 we will be using a similar approach that wherever we believe it to be practicable, in the interest of the taxpayer, to remove contamination we will. Mr. Staley – I just wonder if that is enough. Finally, I would like to know more about the responsibility regarding long-term stewardship. I would like much more detail. Mr. Adler – And that is appropriate. That has been one of the principle thrusts of EPA's efforts. We are currently developing a specific document that describes how stewardship will be done. You will be seeing more on that.

Mr. Zhou – I understand that groundwater will not part of the ROD. When we arrive at making a decision for groundwater, will you have to come back again to address those areas where contamination was left in place? Ms. Cain – Those areas where contamination is left in place do not have a groundwater impact. Mr. Adler – We will dig up soil that presents an exposure threat, but we have also developed a model to develop source areas. So if there is a volume of soil close to groundwater that has contaminants of sufficient mobility to cause a problem with groundwater, we have to dig that up, even if it is below 10 feet. The worst of it will be removed as part of the soil cleanup. In Zone 1 there is one groundwater plume in the northern part of Zone 1. It was associated with a burial ground and that was removed. We hope that we are not leaving anything in place that would cause a new groundwater problem. However, if we have, we would have to address it. We will have a groundwater ROD that will be done in a few years. In Zone 1 we think we have found all the sources and have dug them up.

Mr. Martin – When you say no excavation below 10 feet, 10 feet from what? Grade? Years from now grade may be different. If someone in a few years excavates 5 feet and then in a few years someone else excavates 5 feet you're at 10 feet. Mr. Adler – The first excavation would have been subject to the excavation/penetration permitting program, so DOE will have to maintain a record of what has been going on.

Ms. Cook – In the proposed plan, where it talks about land use controls and monitoring, when the proposed plan becomes final will those specifics be added to this document or will there be a separate document that the public and the board will need to see? Mr. Adler – There will be a separate, formal, enforceable document. We're developing it now, and the basics will be included in the ROD. The details may also be in the ROD if that is what people want. At a minimum it will be included in the first enforceable document that will be developed post-ROD. Ms. Cook – When we get these documents, one of them should be a summary of everything so we can make an informed decision. Considering it takes hours to read these documents to get a good understanding of the plan, they need to be easier for the public to understand. So in the land use control section, more specifics are needed on how land use controls will be implemented, not just that they will be implemented based on regulatory requirements. I have a suggestion on the proposed plan. When you start a new topic, start it on a separate page. Right now they are blending all together. On the maps, if you could combine more information on one or two maps instead of having it split multiple times it would make it much easier to read. More information could be put on one map instead of having it split among three or four maps.

Mr. Paulus – Following up on Mr. Martin’s question. Twenty years down the road things will have changed and you have the records of what has been changed. Is there a mechanism that brings things forward when something is proposed or will it just be buried and no one will know? Mr. Adler – If it’s buried and no one knows then we don’t have an effective land use control, and a key component of what we have for the remedy to work will not work. You’ve seen some of the work we do regarding information management. We’re building a pretty elaborate set of tools to ensure we do a good job of this. We have no choice, but it’s not a problem unique to DOE. This is a challenge society has to face. I think DOE is positioned to do it well. Hopefully we have the staying power and wherewithal to make this work. There are oversight mechanisms such as EPA, TDEC, and the public.

Mr. Hemelright – You said CROET wants 44 acres. Where is that? Mr. Adler – That is Economic Development Parcel 15 that is a subset of the Powerhouse Area. It is a land area currently occupied by a forest products services company. CROET’s requests adapt to development backdrop. If a large company came in and wanted all of the property, CROET would ask DOE for it. I think ED 15 is the parcel in the center of the Powerhouse Area; I will find out and report. Mr. Hemelright – And when the land is transferred it becomes taxable land. Mr. Adler – Yes.

Mr. Hemelright – What is the suitability of fly ash as a sub-base for construction? Mr. Adler – That would be up to geotechnical experts to determine. We wouldn’t want to do anything incompatible with the environmental protection objectives. But I do know of areas where fly ash has been compacted and used it for parking lots and other purposes.

Ms. Cook – Is there a sequence or prioritization of cleanup of these areas mentioned in the proposed plan? Ms. Cain – We are looking at that now. We haven’t agreed on the remedies yet, but we are anticipating what we may need to move forward with first. Mr. Adler – First you define the scope of work. Then based on a set of considerations – risk, opportunities, etc –you get it done. These are not big actions. These are small compared to the big jobs Ms. Cain manages.

Mr. Bumgardner – You have stated there is a 10 foot dig limit. The asbestos area is a 2 foot cover over the area. How is that going to affect that area as far as marketability and limits and restrictions on that area? Ms. Cain – That area would have 2 foot dig limit, and there would be land use controls for excavation. Mr. Bumgardner – Wouldn’t that severely limit marketability? Most footers in that area would have to be pretty deep. Mr. Adler – They would have to put in footers with appropriate controls for their workers. The limits don’t absolutely prohibit excavation below 2 or 10 feet. The limits say above that level you do whatever you want; below that level you have to implement appropriate measures with any waste generated and actions to make sure workers are safe.

Ms. Staley – Can someone build over an area that has been capped? Mr. Adler – If someone designs an engineering approach that met all of our environmental objectives that still required a footer to be put in, we would have to be open-minded about that. The likelihood is in that area a structure would have to be built up because it is just out of the 100-year flood plain and just in the 500-year flood plain. So before anyone spends a lot of money to build something that could be washed away during a flood, they are probably going to build up. So it may not be an issue there because someone would have to bring in material and build a pad and place footers within that.

Committee Reports

EM & Stewardship

Mr. Hatcher reported that members of the committee took a field trip in November to Zone 1 see first-hand the area that was discussed at this meeting. As a result of the field trip and examination of the proposed plan for Zone 1 a draft recommendation has been written. The committee will

discuss this topic more at its January 21 meeting. Mr. Hatcher said the draft recommendation will probably evolve over several meetings to its final form.

Executive

Ms. Lyons said the committee at its December 3 meeting discussed many of the topics that were brought up at the board's November 12 work session. She said the work session was helpful in generating discussion among board members. The committee favors doing similar work sessions perhaps twice a year.

The committee discussed membership. A number of recruitment activities were conducted the last quarter of 2014 that netted several applications for membership. Four of those applications have been submitted to DOE headquarters for interim appointments in February.

The committee asked staff to poll board members regarding extension of terms. While members are generally in favor of extending membership terms, Susan Cange, the board's Deputy Designated Federal Officer, said it would be difficult to extend terms because term limits are dictated by DOE Headquarters unless special circumstances exist that would allow extensions.

The committee discussed changes in the bylaws that were read at this meeting (see Motions). These changes follow the format that DOE Headquarters is developing for the EM SSAB.

The committee discussed meeting format. Mr. Adler suggested that there not be so many informational type presentations, but focus on presentations where board input is requested.

There was discussion of replacing committee reports with time for general discussion among board members. From a poll of board members, the majority of those responding (11) were in favor of dropping committee reports, but there was also a desire to have some brief mention of what went on in the committee meetings. There was also discussion about how general discussion would be handled – what format, how long, etc. The committee will discuss more how to handle that.

Regarding video recording of meeting, the committee agreed to have cameras turned off after the motions portion of the meeting, but continue to record audio for the entire meeting for use in writing minutes of the meeting.

Ms. Cange has asked the board to take a more active role in 2015 in developing a public budget workshop for DOE EM, particularly in finding ways for more public participation.

The committee discussed asking the EPA and TDEC liaisons to comment more on work being done on the Oak Ridge Reservation, such as the top three things that were done in past month. Ms. Lyons said such activities may be business as usual for the agencies but may be newsworthy for board members.

The board has received a request from Amy Fitzgerald of the City of Oak Ridge for an opportunity to discuss the city's concerns as they related to DOE's environmental management activities.

Mr. Hemelright mentioned that the Environmental Management SSAB Chairs' meeting will be in Augusta, Ga., on April 22-23. He and Ms. Staley plan to attend, but he encouraged anyone else interested in attending should advise staff.

Announcements and Other Board Business

ORSSAB's next scheduled meeting will be Wednesday, February 11, 2015, at the DOE Information Center. The topic will be on sufficient waste disposal capacity on the Oak Ridge Reservation.

The minutes of the October 8 and November 12, 2014, meetings were approved.

The board heard the first reading of a proposed amendment to the ORSSAB bylaws to change the procedure for voting on recommendations (Attachment 2).

The board heard the first reading of a proposed amendment to the ORSSAB bylaws to change the procedure for amending the bylaws (Attachment 3).

The board approved an Environmental Management SSAB Chairs' Recommendation to Initiate a Process of Permit Modification for Additional Surface Storage at the Waste Isolation Pilot Plant (Attachment 4).

Federal Coordinator Report

Ms. Noe reported that Wanda Smith has resigned from the board.

Ms. Noe reiterated that four new members have received interim appointments that will run from February to July. They will also be submitted for full two-year appointments in July.

Additions to the Agenda

None.

Motions

1/14/15.1

Ms. Lyons moved to approve the minutes of the October 8, 2014, meeting. Mr. Bell seconded and the motion passed **unanimously**.

1/14/15.2

Ms. Lyons moved to approve the minutes of the November 12, 2014, meeting. Mr. Paulus seconded and the motion passed **unanimously**.

1/14/15.3

Ms. Cook moved to approve the Environmental Management SSAB Chairs' Recommendation to Initiate a Process of Permit Modification for Additional Surface Storage at the Waste Isolation Pilot Plant (Attachment 4). Mr. Hatcher seconded. The motion **passed** with 12 members voting 'yea' and one member voting 'nay' (Ms. Kasten.)

The meeting adjourned at 7:55 p.m.

Action items

1. Mr. McMillan will get information on tritium levels in water leaking from the Research Reactor pool. **Completed.** Mr. McMillan provided information to the board on December 5, 2014 (Attachment 5).
2. Mr. Adler will determine where ED 15 is in Zone 1.

Attachments (5) to these minutes are available on request from the ORSSAB support office.

I certify that these minutes are an accurate account of the January 14, 2015, meeting of the Oak Ridge Site Specific Advisory Board.

Dave Hemelright, Chair
Oak Ridge Site Specific Advisory Board
DH/rsg

DATE

Proposed Revision to the Process for Approving Recommendations

Current wording:

VI. DECISION MAKING

B. Approval of Recommendations: For the purpose of approving recommendations, a quorum shall be three-quarters of the current voting membership of the Board. To approve recommendations (and/or advice) to be submitted to DOE, two-thirds of those members present must vote in favor of the recommendation and this number must equate to no less than the simple majority of the current voting membership.

Proposed revision:

VI. DECISION MAKING

B. Approval of Recommendations: Recommendations shall be approved by majority vote of the entire Board membership.

Current wording:

VI. DECISION MAKING

D. Bylaws Amendments: These Bylaws may be amended at any regular meeting of the Board by a **two-thirds vote of the current voting membership**, provided that the proposed amendment was submitted in writing and read at a previous regular business meeting. (Also see Section XII.)

Proposed revision:

VI. DECISION MAKING

D. Bylaws Amendments: These Bylaws may be amended at any regular meeting of the Board by a **majority vote of the entire Board membership**, provided that the proposed amendment was submitted in writing and read at a previous regular business meeting. (Also see Section XII.)

Current wording:

XII. AMENDING THE BYLAWS

A. Policy: The Board shall have the power to alter, amend, and repeal these bylaws in ways consistent with the Amended Charter of the EM Site Specific Advisory Board, and other applicable laws, regulations and guidelines. Any member of the public, the Board, or one of the Agencies may propose an amendment. However, to be considered by this Board the proposed amendment must be sponsored by a Board member. The bylaws may be amended at any regular meeting of the Board by a **two-thirds vote of the entire Board membership**, provided that the proposed amendment was submitted in writing and read at a previous regular business meeting.

Proposed revision:

XII. AMENDING THE BYLAWS

A. Policy: The Board shall have the power to alter, amend, and repeal these bylaws in ways consistent with the Amended Charter of the EM Site Specific Advisory Board, and other applicable laws, regulations and guidelines. Any member of the public, the Board, or one of the Agencies may propose an amendment. However, to be considered by this Board the proposed amendment must be sponsored by a Board member. The bylaws may be amended at any regular meeting of the Board by a **majority vote of the entire Board membership**, provided that the proposed amendment was submitted in writing and read at a previous regular business meeting.

Recommendation Response Tracking Chart for FY 2014

	Date	To	Recommendation	Originating Committee	Response Date	Response Status	Committee Review of Response
1.	5/14/14	Susan Cange, Acting Manager for Oak Ridge EM	Recommendation 222: Recommendations on Additional Off-site Groundwater Migration Studies	EM & Stewardship	8/5/14	Complete: DOE has or is addressing all points in the recommendation	Committee accepted response.
2.	5/14/14	Susan Cange, Acting Manager for Oak Ridge EM	Recommendation 223: Recommendations on Additional Waste Disposal Capacity on the Oak Ridge Reservation	EM & Stewardship	7/28/14	Complete: DOE addressed all points of the recommendation.	Committee accepted response.
3.	5/14/14	Susan Cange, Acting Manager for Oak Ridge EM	Recommendation 224: Recommendation on Fiscal Year 2016 DOE Oak Ridge Environmental Management Budget Request	EM & Stewardship and Budget & Process	6/17/14	Complete: DOE Oak Ridge EM submitted the recommendation to DOE HQ along with its budget request for FY 2016.	
4.	9/10/14	Susan Cange, Acting Manager for Oak Ridge EM	Recommendation 225: Recommendation on DOE GIS Fact Sheets	EM & Stewardship	10/28/14	Complete: DOE accepted the recommendation and will update GIS Fact Sheets as requested	Committee accepted response.

EM Project Update

ETTP	December	January
Zone 1 Final Soils ROD	Received comments from TDEC on the D2 version of the Zone 1 Final Soils Proposed Plan.	Received letter from EPA stating that the Proposed Plan cannot be finalized until the D2 RI/FS informal disputed is resolved.
Zone 2 ROD		Continued data validation on laboratory analytical results on samples collected in EU 20; continued sample collection in EU 21.
		Completed the draft K-25 Slab Retention Study and initiated internal review. Also completed the draft Technical Memorandum for EU-06 and initiated internal review.
K-25/K-27 D&D	K-27 deactivation is 53 percent complete. Foaming of the process gas piping and equipment is 30 percent complete.	K-27 deactivation is 57 percent complete. Foaming of the process gas piping and equipment is 47 percent complete.
	The Office of Acquisition and Project Management conducted on-site activities for the K-27 Independent Cost Estimate review. The K-27 External Independent Review is scheduled for January.	All regulatory and safety documents have been submitted for comment/approval.
	The Removal Action Work Plan for K-27 was submitted to the regulators.	The K-27 pipe removal (tubing removal) activities are 75 percent complete.
	The FY 2014 PCCR (Demolition Report) was submitted to the regulators.	The WHP Revision for the K-27 Building Structures was approved by the regulators.
K-31 Demolition	Overall demolition is 22 percent complete. Demolition debris disposal is 16 percent complete.	Overall demolition is 43 percent complete. Demolition debris disposal is 37 percent complete.
	Laboratory data from concrete and steel samples was received and will be submitted to the regulators.	Laboratory data from concrete and steel samples were submitted to the regulators and received a favorable review.
	The WHP Addendum was approved by the regulators.	Deactivation activities for the ancillary building K-761 continued with friable asbestos abatement and is 20 percent completed. Universal waste removal is 81 percent complete.
K-892 Deactivation	The deactivation is 57 percent complete. Exterior transite removal, unbolting of interior equipment, grouting of recirculant coolant water (RCW) line, and removal of all universal hazardous waste is complete.	Demolition of building is 50 percent complete and size reduction is 10 percent complete.
	Abatement and removal of electric cabinet asbestos is 75 percent complete. RCW pipe cutting is 10 percent complete.	
Remaining Facilities	The FY 2014 PCCRs for both Low Risk/Low Complexity Facilities and the Predominantly Uncontaminated Facilities were submitted to the regulators for review.	
ORNL	December	January
U-233 Disposition	A review was completed and approved on the contractor's Technical Security Counter Measures Plan.	Completed the development of the Transitional Fire Hazards Analysis for Building 2026 and submitted for review.
	A proposal was submitted for replacement of hand-held and walk-through explosive detector systems. Technical evaluation of the proposal is in progress.	Final contract negotiations were completed for the additional design work associated with the Natural Phenomena Hazards analysis on Building 2026.

EM Project Update

ORNL	December	January
U-233 Disposition	Completed upgrades to the 3019 Complex Closed Circuit Television.	The Safeguards and Security Survey of the National Security Protective Services (NSPS) was conducted. NSPS provides protective force services for the 3019 Complex.
Molten Salt Reactor Experiment (MSRE)		The FY 2014 PCCR for Secondary LLLW was approved by the regulators.
TRU Sludge Disposition		The RmAR for the Sludge Test Area Buildout was submitted to the regulators for review.
Y-12 Site	December	January
Y-12 Mercury Abatement Phase I ROD	Continued with the Pre-Design Studies to support MTF design and operations and began drafting Pre-Design Study reports.	Continued preparing the Pre-Design Studies to support MTF design and operations. Preparing to sample spring storm event and continued working with regulators to resolve FFS comments.
Off-Site Cleanup/Waste Management	December	January
TRU Waste Processing Center (TWPC)	A team from Carlsbad Field Office conducted a Technical Assessment for Transuranic Waste Generator Sites. The team focused on activities at TWPC and generators at ORNL and URS/CH2M Oak Ridge LLC.	Transfer of low-activity casks to TWPC was completed. Returns of contact-handled waste from TWPC to storage are continuing.
		Team worked to finalize the design of storage overpacks for the remote-handled canisters.
EMWMF		Levels of Cr+6 were successfully reduced per approved procedures and the water from two contact water ponds was discharged.
EMDF		Site surveys were completed and field activities included collection of water quality and elevation measurements data and surface water observations.
ORR Groundwater Strategy	Meeting was held with TDEC and Tennessee Dept. of Health to discuss sampling and analysis methodologies and to coordinate plans for co-sampling activities.	Off-site field sampling was initiated with the sampling of the Gallaher Spring. To date, 37 viable sample locations, including 29 wells and 8 springs, have been confirmed, and additional candidate sample locations have been identified.
	The Remedial Site Evaluation Work Plan Erratum was submitted to the regulators for review.	The Remedial Site Evaluation Work Plan Erratum was approved by the regulators.
	Outreach efforts continue with property owners to evaluate the suitability of well taps/faucets for sampling and to secure license agreements. To date, 49 field visits have been conducted and 19 property owners have signed license agreements.	

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

CNF – Central Neutralization Facility

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

EMDF – Environmental Management Disposal Facility

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

FFS – Focused Feasibility Study

FPD – federal project director

FY – fiscal year

GIS – geographical information system

GW – groundwater

GWTS –groundwater treatability study

IROD – Interim Record of Decision

LEFPC – Lower East Fork Poplar Creek

LLW – low-level waste

MLLW – mixed low-level waste

MSRE – Molten Salt Reactor Experiment

MTF – Mercury Treatment Facility

MV – Melton Valley

NaF – sodium fluoride

NDA – non-destructive assay

NEPA – National Environmental Policy Act

NPL – National Priorities List

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

NTS – Nevada Test Site

OREM – Oak Ridge Office of Environmental Management

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

PP – Proposed Plan

PPE – Personal Protective Equipment

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

RDWP – Remedial Design Work Plan

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

TSCA – Toxic Substances Control Act

TWPC – Transuranic Waste Processing Center

U – uranium

UEFPC – Upper East Fork Poplar Creek

URS/CH2M – (UCOR) DOE's prime cleanup contractor

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

Travel Opportunities

Meeting/Event	Dates	Location	Reg. Cost	Website	Conference Lock Date; # Allocated Attendees	Deadline to Submit Requests
FY 2015						
Waste Management Symposium (Attendees: Smalling, Price)	March 15-19, 2015 (Early registration ends 12/31/14)	Phoenix	\$1,035	www.wmsym.org	11/1/14 (# attendees 1)	10/22/14
National Environmental Justice Conference & Training Attendees: Kasten, Martin)	March 11-13, 2015	Washington, D.C.	none	http://thenejc.org	N/A	1/28/15
Spring Chairs Meeting Attendees: Cook, Hatcher, Hemelright, Staley)	April 21-23, 2015	Augusta, GA	none		N/A	2/25/15
2015 U.S. EPA Community Involvement Training Conference (Pending requests: Cook, Lyons)	August 4-6, 2015	Atlanta, GA		www.epa.gov/ciconference	N/A	
Ohio EPA National Brownfields Conference (Pending requests: ___)	September 2-4, 2015	Columbus, Ohio	\$125	http://www.brownfieldsconference.org/en/home		
RadWaste Summit (Pending requests: Staley)	September 8-11, 2015	Summerlin, Nevada	\$625	http://radwastesummit.com/		
Fall Chairs Meeting (Pending requests: Staley)	TBD	Santa Fe, NM	none		N/A	
Intergovernmental Meeting with DOE (Pending requests: ___)	Fall 2015 (probably October or November)	TBD	none			
Western Waste Site Tour (Tentative requests: Hagy, Hatcher, Lyons, Mei, Paulus, Price, Smalling)	Postponed pending resolution of issues at WIPP	Waste Isolation Pilot Plant, Nevada Nat'l Security Site	none	none		
Perma-Fix Nuclear Waste Management Forum (Pending requests: ___)	Transitioned to a bi-annual event. Next meeting is slated for FY 2016 (December 2015)	Nashville	\$500			

Shading indicates closed trips