

Oak Ridge Site Specific Advisory Board Monthly Meeting



Wednesday, April 10, 2019, 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.

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AGENDA

PRESENTATION MATERIALS

1. Speaker Bios
2. Presentation Printout (to be distributed prior to or at meeting)

CALENDARS

1. April
2. May (*draft*)

BOARD MINUTES/RECOMMENDATIONS & MOTIONS

1. March 13, 2019 unapproved meeting minutes
2. Draft board bylaws update

REPORTS & MEMOS

1. Updated FY2019 ORSSAB Work Plan Schedule
2. EM Project Update and Abbreviations
3. Travel Opportunities for FY 2019
4. Incoming Correspondence



Oak Ridge Site Specific Advisory Board
Wednesday, April 10, 2019, 6:00 p.m.
DOE Information Center
1 Science.Gov Way, Oak Ridge, TN 37831
AGENDA

- I. Welcome and Announcements (D. Wilson) 6:00–6:15
 - A. No May meeting – DOE requests members attend the Community Budget Workshop on Wednesday, May 15. Details to come.
Issue Group: Price, Wilson
 - B. Presentation of Service Awards to Outgoing Student Representatives (J. Mullis)

- II. Comments from Federal and State Agency Representatives
(J. Mullis, C. Jones, K. Czartoryski) 6:15–6:20

- III. Presentation: Extending Operational Life of Facilities & Reducing Surveillance
and Maintenance Requirements (B. McMillan)..... 6:20–6:40
Issue Group: Holden, Perez, Shields, Swindler, Tapp

Questions regarding the presentation 6:40–6:50
 - i. Board members
 - ii. Public - *Please use the microphone so questions can be documented for the meeting record.*

- IV. Public Comment Period (O. Fleenor/J. Narula) 6:50-7:00
Please use the microphone so questions can be documented for the meeting record.

- V. Call for Additions/Approval of Agenda (D. Wilson)..... 7:00
 - A. Requests for New Action Items
 - B. Next Meeting: Wednesday, June 12, 2019
Presentation: Excess Contaminated Facilities Update (B. McMillan/B. Henry)
Issue Group: Baker, Shields, Swindler

- VI. Board Business..... 7:05–7:15
 - A. Motion to Approve: March 13, 2019 Meeting Minutes (R. Burroughs)
 - B. Second Consecutive Absence – Brooke Pitchers (R. Burroughs)
 - C. Discussion of Chair’s Meeting Presentation (M. Lohmann)
 - D. Discussion and Vote on Updates to Board Bylaws (D. Wilson)

- VII. Responses to Recommendations & Alternate DDFO’s Report (M. Noe)..... 7:15–7:20

- VIII. Committee Reports 7:20–7:25
 - A. Executive (D. Wilson)
 - B. EM/Stewardship (L. Shields)

- IX. Additions to Agenda & Open Discussion 7:25–7:30

- X. Adjourn 7:30

Bill McMillan professional bio

William (Bill) G. McMillan is a Portfolio Federal Project Director for the Department of Energy (DOE) Oak Ridge Office of Environmental Management (OREM) with the responsibility for overseeing all Environmental Management cleanup, decontamination, decommissioning, waste storage, and disposal operations at the Oak Ridge National Laboratory.

Bill has been with DOE for more than 30 years, and joined the Oak Ridge Office of Environmental Management in 1995. Since coming into OREM, Bill has performed program and project management activities for low-level waste disposition, transuranic waste characterization and disposition, disposition of Uranium-233, and various remediation and construction activities.

Bill's career has also included five years with the DOE Y-12 National Security Complex Site Office, three years with the Savannah River Operations Office and five years with the South Carolina Department of Health and Environmental Control.

Bill has a Master of Science Degree in Environmental Systems Engineering from Clemson University, and a Bachelor of Science Degree in Biology from the College of Charleston. He lives in Oak Ridge with his wife Kathy, and has two grown sons.

Presentation to be
distributed at or prior
to meeting



Oak Ridge Site Specific Advisory Board

April

2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3 Executive Committee 5 pm	4	5	6
7	8	9	10 Board meeting on Extending Operational Life of Facilities & Reducing Surveillance & Maintenance Requirements 6 pm	11	12	13
14	15	16	17	18	19	20
21	22	23	24 EM/Stewardship 6 pm	25	26	27
28	29	30				

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

ORSSAB Support Office: (865) 241-4583 or 241-4584 **DOE Information Center:** (865) 241-4780
ORSSAB Conference Call Line: (866) 659-1011; enter the participant code when prompted: 3634371#

Board meetings on cable TV and YouTube	
Community TV Knoxville channels: AT&T – 99, Charter – 193, Comcast - 12, WOW! - 6	Sunday at 8 p.m.
Lenoir City: Charter Cable Channel 193	Wednesday at 4 p.m.
BBB Communications Oak Ridge: Channel 12	Fourth Mondays, 7 p.m.
Oak Ridge Schools: Channel 15	Monday, Wednesday, Friday, 8 a.m. & noon
YouTube	http://www.youtube.com/user/ORSSAB



Oak Ridge Site Specific Advisory Board

May

2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 Executive Committee 5 pm	2	3	4
5	6	7	8 <i>No meeting due to Community Budget Workshop</i>	9	10	11
12	13	14	15 TBD – Community Budget Workshop	16	17	18
19	20	21	22 EM/Stewardship 6 pm	23	24	25
26	27	28	29	30		

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



Many Voices Working for the Community

Oak Ridge Site Specific Advisory Board

Monthly Meeting of the Oak Ridge Site Specific Advisory Board

Unapproved March 13, 2019, Meeting Minutes

The Oak Ridge Site Specific Advisory Board (ORSSAB) held its monthly meeting on Wednesday, March 13, 2019 at the DOE Information Center, 1 Science.gov Way, Oak Ridge, TN, beginning at 6 p.m.

Copies of referenced meeting materials are attached to these minutes. A video of the meeting was made and is available on the board's YouTube site at www.youtube.com/user/ORSSAB/videos.

Members Present

David Branch
Richard Burroughs, Secretary
Bill Clark
Martha Deaderick
Sarah Eastburn

Eddie Holden
Shell Lohmann, Vice Chair
Harriett McCurdy
Marite Perez
Leon Shields (call-in)

Bonnie Shoemaker
Fred Swindler
John Tapp
Dennis Wilson, Chair

Members Absent

Leon Baker
Nannan Jiang

Brooke Pitchers¹
Belinda Price

Ed Trujillo¹
Rudy Weigle

¹Second consecutive absence

Liaisons, Deputy Designated Federal Officer, and Alternates Present

Dave Adler, ORSSAB Deputy Federal Designated Officer, Department of Energy, Oak Ridge Office of Environmental Management (DOE-OREM)

Melyssa Noe, ORSSAB Alternate Deputy Designated Federal Officer (DDFO), OREM

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

Others Present

Mark Peterson, Oak Ridge National Laboratory (ORNL)

Elizabeth Phillips, OREM

Roger Petrie, UCOR

Shelley Kimel, ORSSAB Support Office

Sara McManamy-Johnson, ORSSAB Support Office

14 members of the public were present.

Liaison Comments

Mr. Adler – Mr. Adler told board members OREM began tearing down one of the last remaining buildings at East Tennessee Technology Park (ETTP) – Building 1037, which was the building where the gaseous processing equipment used at K-25 was produced, maintained, and serviced. He told members it would be done very quickly, and when it was done, there would only be one other large building left. He said the main message is that OREM is nearly finished with the buildings at ETTP, then some soil work will be done, “then we’ll be closing in on, hopefully, being done at the ETTP site.”

Mr. Adler also told board members that a large group of people from OREM recently attended the 2019 Waste Management Symposia in Phoenix, Arizona. He said that while there, OREM Manager Jay Mullis met TDEC’s new commissioner, and the two had a productive meeting.

Mr. Czartoryski – None

Presentation

Ms. Lohmann introduced board members to Mark Peterson, presenter for the evening’s topic, Aquatic Ecology Research and Technology Development in East Fork Poplar Creek.

Mr. Peterson told board members he would first talk about the mercury problem in general before going into more details about East Fork Poplar Creek and the work his research team has been doing. A key characteristic of mercury (Hg) is its density. Mr. Peterson said an example is images of mercury and lead with lead blocks floating on top of mercury, illustrating just how dense it is. Mr. Peterson said mercury’s physical properties make remediation difficult. If you dig a hole with elemental mercury in the soil, the mercury beads end up at the bottom of the hole. As you dig more, the mercury becomes more embedded into the environment, and closer to the subsurface flow paths in the groundwater. He said when mercury is in buildings, it will invariably end up in basements, where there is an interchange between the building and the surrounding soil. When storm drains are involved, mercury travels into cracks and crevices at the bottom of the storm drains, and it gets into the footers of the storm drains, where subsurface flow paths are located.

Other than elemental mercury (Hg (0)) there are forms of the main types of inorganic mercury, mercury 1 (Hg (I)) and mercury 2 (Hg (II)). He said one that most people are familiar with is mercuric sulfide, commonly called cinnabar, which is the form normally found in the environment and is a very stable form. However, mercury 2-plus (Hg (II)), a dissolved ionic form found at Y-12 National Security Complex (Y-12), is normally rare in the environment, but at Y-12 chlorine interacts with elemental mercury and oxidizes into mercury 2, which then is more mobile and potentially more bioavailable in the downstream environment.

In addition to the chemistry and the complex physical aspects to it, mercury can also be methylated by microorganisms. The resulting methylmercury is the most highly toxic form, said Mr. Peterson, and can cause neurological and reproductive harm. It accumulates in muscle tissue, and concentrates as it moves up the food chain. He said the primary risk relative to bioaccumulation of methyl mercury is typically through fish that are ingested by wildlife and/or humans.

Next, he gave board members an overview of how East Fork Poplar Creek is geographically situated. He said Y-12 is at the headwaters of East Fork, which flows east-northeast, goes through Pine Ridge, then bends to go west into the City of Oak Ridge. He said Y-12 has released a total of about 700,000 pounds of mercury into the environment, mainly during the 1950s and 1960s when mercury was used in industrial processes. To provide perspective, he said that quantity is equivalent to the volume of a 15-foot moving truck and a 5-by-8-foot cargo trailer, relatively small in size compared to volume, again due to its density. This has resulted in 15 miles of East Fork and 5 miles of Poplar Creek exceeding ambient water quality criteria for mercury concentrations. He said a

lot of work has been done in Oak Ridge, and specifically at Y-12, to address mercury issues, and he showed board members a timeline of actions that have affected mercury in the environment and mercury concentration data coinciding with those actions. He said some activities targeted mercury sources and some targeted mercury concentrations in the creek.

Next, he highlighted the disconnect between total mercury in water and total mercury in fish. In East Fork site and Lower East Fork Poplar Creek, mercury in water measures about a thousand parts per trillion (ppt) near the headwaters and this decreases by distance downstream so there is a 10-fold decrease between upstream East Fork and downstream East Fork. This is consistent with a point source, where you expect dilution and declining concentrations in water as you go downstream. He said all of the mercury concentrations in East Fork Poplar Creek, regardless of where they were collected, are below drinking water standards.

Mr. Peterson said fish in the Upper East Fork have mercury concentrations of 0.6 parts per million (ppm) and in the Lower East Fork, it's twice as high. The EPA's recommended criterion is 0.3 ppm. He said that although you would expect with declining total mercury in the water that with distance you would expect a similar decline in fish concentrations, concentrations in fish instead have gone up. The reason is that there's not a linear relationship between total mercury in water and the fish. He said it goes back to the methylating environment and the other factors. If you have a methylating environment, you can get a lot of methyl mercury in water, then that can be an issue with bioaccumulation in fish. Many variable conditions, including pH, dissolved organic carbon, and the amount of wetlands in the system can impact mercury concentrations in fish. He said that's a real challenge when thinking about remediation and just focusing on source reduction. It's not enough ultimately to deal with the source, we have to think about other kinds of solutions to address the mercury issues.

Mr. Peterson next detailed the strategy DOE is using to address mercury issues in Oak Ridge. He said the primary mercury remediation strategy for DOE is a phased adaptive management approach, and the first priority is to get the Mercury Treatment Facility (MTF) online, which is currently scheduled for 2024. The facility will reduce the mercury flux from the most contaminated outfall in Y-12 into the creek and to provide a control mechanism as buildings start coming down to try to control mercury releases during the demolition. After MTF becomes operational, the creek environment will be monitored to see what effects the facility has.

In the meantime, said Mr. Peterson, the Aquatic Ecology Group at ORNL has been working to develop interim technology solutions for the downstream environment, anticipating multiple approaches will need to be combined with MTF to reach target concentration levels, especially in the downstream environment. He said the researchers' strategy includes three main tasks: Addressing the soil and groundwater sources in the downstream environment; trying to develop water chemistry or sediment manipulation options and technologies; and to evaluate potential ecological manipulations.

He said there are three key factors determining the level of mercury contamination in fish: The amount of inorganic mercury available in ecosystems (the source); the conversion of that inorganic mercury to methylmercury (the more toxic form of mercury); and then the bioaccumulation within the food chain. Researchers' goal with technology development is to try to develop strategies for all three of those issues.

Mr. Peterson told board members that the primary study locations include Y-12 at the East Fork headwaters, where there is a gauging station for flow and water chemistry that UCOR and Y-12 maintain; there's a gauge at the Wiltshire Drive area; there is another gauge at the Horizon Center; and there are various biological monitoring sites as well as groundwater sites along the stream. Mr. Peterson showed attendees a video from a kayak survey that was done of East Fork Poplar Creek from the headwaters to the mouth to investigate bank soil and sediments characteristics in the stream, especially relative to bank erosion. It can be found at <https://www.energy.gov/oreem/downloads/orssab-meeting-march-13-2019>.

He next detailed how researchers have approached the project. He said they have used erosion information to focus in on small zones where there is high mercury and high erosion. He said researchers want to target those areas for potential technology deployment to reduce mercury flux into the system. They've been looking at various sorbent technologies to see if they can prevent mercury from getting into the creek.

As far as the source identification and bank erosion issues, Mr. Peterson said researchers believe there is the most potential to reduce mercury flux to the stream within two zones, identified as the NOAA and the Bruners sites, for making a significant reduction in mercury flux.

He said researchers have been studying the effectiveness of sorbents with dissolved organic matter and how it affects methyl mercury. A lot of the work to-date has largely been done on mercuric chloride and mercury in water and effectiveness of sorbents in water, but it hadn't been tested much for use in bank soils, a very different environment. He said they've seen some promise using activated carbon fiber materials. One option being studied is to create some bank stabilization areas by applying sorbents and also stabilize through mat application to keep mercury in the soil from getting in the creek.

For the sediment and water chemistry task, the goal has been to reduce total mercury, but especially methylmercury concentrations in the water, he said. Researchers have various gauges through the creek to study seasonal and annual changes, to get a better spatial and temporal resolution of the concentration of the flux, and to do some various sediment source investigations. Additionally, he said, researchers have looked at using alternative chemicals, such as ascorbic acid (Vitamin C) at Y-12 that may help with the mercury issue. He said researchers have seen promise with using ascorbic acid to lower chlorine, and although longer-term testing is needed, it indicates that process adjustments inside the site at Y-12 could make a difference.

He said about 75 percent of the total mercury flux per day comes from the section between Station 17 and the outflow of Y-12 at Wiltshire Road, which is part of the upper section. However, the lower section seems to be the biggest concern in terms of methylmercury.. Researchers have also seen concentrations of mercury and methylmercury vary between night and day, with higher levels at night. They believe this variance is related to bioturbation – animals like crayfish and fish digging through mud – causing higher concentrations in the water.

Next, Mr. Peterson discussed the ecological manipulations that have been studied. He said that previously assumptions had been that most total mercury in fish fillets was methylmercury, by they've shown that is not the case. Now researchers are studying the organism populations in East Fork Poplar Creek to learn more about those that are present and whether they can be adjusted in any way. He said that within the last five years, they've found that periphyton – algae on rocks – is a place for methylation, so things like nitrates and nutrients, light, and shade can affect algae, which could then affect mercury methylation.

He also discussed the effects of food chains on mercury concentrations in fish. He explained that longer food chains cause higher biomagnification, and each organism has a different bioaccumulation potential. He said the greatest biomagnification step is between water and periphyton, which is a step of hundreds of thousands to a million-times higher in mercury. He said that after that, it becomes two-fold or three-fold. If adjustments could be made in the step between water and periphyton, there could potentially be adjustments all the way up the food chain. He said predators have a relatively high percentage of methylmercury because they are higher in the food chain; conversely, collectors/filterers, like clams and mussels, have very little methylmercury. If the number of organisms with low methylmercury can be increased in the system, the risk paradigm could potentially change for the community downstream.

Additionally, he said researchers have been looking at mussels and clams as a way to possibly reduce mercury in the water column. He said bivalve organisms – mussels, clams, and oysters – are highly effective at removing particles from the water, and he cited cases elsewhere where bivalves have been planted and cleaned the water. He

said if they can take a lot of the particles out of the water, that's potentially less particle-associated mercury available to periphyton and the fish food-chain pathway of exposure. He added that East Fork had a lot of mussels many years ago, and researchers know the species that were collected there. The Aquatic Ecology Laboratory has been working with the Tennessee Wildlife Resource Agency to obtain mussels that are native to the area. To illustrate the potential of this method, Mr. Peterson showed a fast-motion video demonstrating mussels' filtering capabilities. This video can be found at <https://www.energy.gov/oreem/downloads/orssab-meeting-march-13-2019>.

Mr. Peterson said researchers have been studying filtration rates in the lab under various environmental conditions and examining substrate from the kayak surveys to find out where there is appropriate habitat. He said they've identified about a dozen species they think will be suitable for East Fork, and they're researching the available carrying capacity of East Fork for mussels. Additionally, he said they plan to do controlled studies in the Aquatic Ecology Lab evaluating how mussel filtering can affect mercury concentrations in water and fish.

In summary, he said, potential future strategies for decreasing mercury flux into the system starts with a mercury treatment facility. MTF will hopefully reduce a lot of mercury flux coming into East Fork, and although it hasn't been quantified yet, it may further reduce mercury flux from the soil banks. He explained that MTF will also have large storage tanks to collect some storm flow, and with that flow being released more slowly into the creek over time, it may potentially reduce bank erosion. Additionally, he said, they're exploring possible bank stabilization sorbent solutions for high-mercury streambanks. He said mercury removal from the banks is not an effective strategy at a large scale. Considering the physical and chemical aspects of mercury it's very hard and expensive to remove enough of the soil – he said targeted actions at the most contaminated sites for bank-stabilization and sorbent technologies might be the most effective.

He said researchers have a goal of developing watershed scale recommendations and potential strategies to employ that could provide benefits in reducing mercury flux or bioaccumulation. For example, he said, actions that decrease flashy flows to the creek, such as the use of pervious pavement in the upstream industrial and urban areas of the watershed. They know nutrients, algae, and light all affect mercury processing, methylation, and bioaccumulation, so developing a strategy for modifying these key environmental factors may be effective. Lastly, he said, the strategies involving the food chain could be effective. He said they could look at introducing mussels, and possibly fish management actions. In East Fork there are rock bass, redbreast, and bluegill, which vary a lot in their mercury content. The bluegill largely eat terrestrial insects that are low in mercury. By overstocking with bluegill and outcompeting these other species, there could be a two-fold reduction in the mercury concentrations in the fish.

Mr. Peterson told board members there are modifications planned for the Aquatic Ecology Laboratory to do flow-through testing of East Fork water in stream-like conditions in a controlled setting, so researchers can start scaling up and applying these technologies.

After the presentation board members asked the following questions:

- Mr. Clark asked if there have there been any studies on plants that absorb mercury or for erosion control.
 - Mr. Peterson said phytoremediation has been looked at, but the thought is to look at it for soil stabilization for areas where you might not be able to do more aggressive kinds of actions. He said that, as far as pulling mercury out of the soil and into the plant and then harvesting it, that raises cost issues and disposal issues. Where it's been applied previously is in flat wetland areas; when there's mercury in the soil, it's hard to get it out of there with plants, it becomes perpetual. He said, though, that plants can be a good solution for erosion control in some places, depending on the characteristics of the banks.

- Ms. Shoemaker asked if chlorine discharges from Y-12 have been eliminated and whether wetlands are beneficial.
 - Mr. Peterson said they are more looking at de-chlorination at the exit point of the storm drains. Regarding wetlands, he said wetlands are not beneficial in terms of mercury; they are generally methylating environments.
- Mr. Tapp asked what the situation is in Poplar Creek below the confluence with East Fork.
 - Mr. Peterson said in Poplar Creek, the concentrations go down, consistent with what you'd expect with increased flow and dilution, but they're still elevated.
- Mr. Tapp asked where the mercury goes when a mussel filters water and removes mercury.
 - Mr. Peterson said it goes into the mussel. They're picking up inorganic mercury, but they're very low in methylmercury. He said they wouldn't generally expect toxicity in the mussels, especially in the downstream section.
- Mr. Tapp asked if they have done any studies on what the releases need to be from the MTF storage tanks to maintain a flow that would not lead to bank erosion.
 - Mr. Peterson they've just recently obtained some specifications for MTF that can be used to run calculations. He said any capture of storm water is likely to help with the mercury because of decreases to erosion, but the benefits not been quantified.
- Mr. Clark asked if mussels are planted in East Fork Poplar Creek if there is any plan to collect those mussels later. He also asked whether the mercury goes into the shell or the flesh.
 - Mr. Peterson they plan to look at what happens to the mercury after the mussels die, but they don't plan to remove the mussels later. He said the mercury primarily stays in the flesh.
- Ms. McCurdy asked if any test have been done on what eats the fish.
 - Mr. Peterson said there's been some work associated with the Lower East Fork floodplain, largely for ecological risk assessment, evaluating prey. He said most toxicity benchmarks are based on prey. Therefore to model toxins in a hawk and what those risks are, you look to controlled laboratory studies on what that hawk's been fed to be able to evaluate the toxicity. He added that just because a receptor has mercury in a feather or tissue does not mean that it's negatively affected. You do studies to evaluate toxicity (smaller egg size, etc.) by how much mercury it's been exposed to through the food chain. He said largely the fish concentrations provide the measure for evaluating blue heron, mink, kingfishers, and all those have been modelled in various risk assessments on the reservation through the years.
- Mr. Czartoryski asked if the researchers had any information on Bear Creek.
 - Mr. Peterson said there are fish issues in Bear Creek, but not water concentration issues. He said a lot of the work in Bear Creek has focused on concerns with beaver dams because they flood the floodplains and create a methylating wetland environment.
- Mr. Tapp asked if the mercury would eventually kill the mussels.
 - Mr. Peterson said they want to do more scaled-up studies in the laboratory to evaluate those kinds of issues, but he suspects not because inorganic mercury – which is what the mussels would be filtering – has not been known to be a major toxic actor in the concentrations in Lower East Fork.
- Ms. Deaderick asked how they are going to clean up around the Bruners area.
 - Mr. Peterson said ORNL is trying to develop some technologies or remedial solutions for the

- creek. Based on what they've seen so far, they think some very small areas within the Bruner or NOAA areas are where they would target as having an opportunity with somewhat smaller actions or technology deployment making a real difference in overall flux. He said whether that is some technology that they develop by some sorbent or not, that'll be evaluated as part of the CERCLA process. He said ORNL is developing the science and technologies, and after MTF is in operations for two years, there will be a formal evaluation of interim actions – not a final solution, but an interim actions – and that's where a lot of their information will inform the decision-makers on what they may or may not do in East Fork.
- Ms. Deaderick asked what a sorbent coupon is.
 - Mr. Peterson said a sorbent coupon is just a way to be able to place the sorbent so it doesn't just dissolve or fall apart, when it mixes in with the soil. The sorbent is put in a mesh packet, which is then tagged with the original location and material.
 - Ms. Eastburn asked if there is any kind of timeframe on implementing the carbon-fiber mats and bank stabilization.
 - Mr. Peterson said ORNL's timeframe for getting information of value to DOE is in the mid-2020s timeframe.
 - Ms. Shoemaker commented that she wished MTF could be operational before 2024.
 - Mr. Adler said DOE is working with the contractor to see if some schedule compression is possible. He said it's largely driven by how soon the money is budgeted.
 - Ms. Lohmann said the recent permit approvals for MTF from TDEC included statements that it would be 2021-2022, so she was curious what pushed the timeline back.
 - Mr. Adler said he thought there were some components to the procurement process that slid out, but he'd have to ask Brian Henry, the federal project director, to provide detailed answers. He said he would get Mr. Henry to answer the board's questions.
 - Mr. Wilson said that during the floodplain remediation, there was an actual vote from the city on whether to remediate any further. He asked for additional background on that.
 - Mr. Adler said there was discussion on how aggressively to dig up soils. He said some conservative risk assessments done suggested one concentration, and other less conservative assessments suggested a different concentration. He said they realized that if they dug to the very low concentration, there would also be ecological impacts; they would actually be destroying the floodplain to go after a hypothetical risk. He said they weighed the various considerations and in the end, largely through the input of the community and concerns from some scientists at the lab, elected not to go for the most conservative level, but to go for a level that was deemed to be protective of current uses of the land and people but that didn't require removing so much of the landscape.
 - Mr. Wilson how researchers came up with using vitamin c (ascorbic acid).
 - Mr. Peterson studies have been done previously on ascorbic acid, and it's a very effective de-chlorinator that has been used to help fish in the aquarium industry.

Public Comment

There were no public comments.

Motions –

3/13/19.1 Motion to approve the agenda

The motion carried unanimously.

3/13/19.2

Mr. Burroughs reported on the meeting minutes from the November meeting.
Mr. Branch moved to approve, and Ms. Eastburn seconded. The motion carried.

3/13/19.3

Mr. Burroughs reported on the meeting minutes from the February meeting.
Mr. Holder moved to approve, and Ms. Shoemaker seconded. The motion carried.

Responses to Recommendations & Alternate DDFO Report

Ms. Noe said there are no open recommendations to report on, but she had an update on the ORSSAB new member package. She said the package is at headquarters in draft form, and they are waiting for headquarters to give preliminary approval to submit it.

Committee Reports

EM & Stewardship – Mr. Swindler said the committee had an extensive discussion on OREM’s groundwater program.

Executive – Mr. Wilson said the committee reviewed some of the changes to the bylaws and reviewed options for the annual meeting and details about the presentations for the next two board meetings.

Additions to the Agenda & Open Discussion

Mr. Wilson told board members the executive committee is proposing changes to the bylaws. He directed members to the list of proposed changes in the meeting packet and asked them to review those changes before the next full board meeting for a vote on them. He said the proposed changes are not drastic, but they are necessary.,

Action Items

1. DOE will provide additional information on construction schedule changes for the Mercury Treatment Facility.

The meeting adjourned at 7:40 p.m.

I certify that these minutes are an accurate account of the March 13, 2019, meeting of the Oak Ridge Site Specific Advisory Board.

Richard Burroughs, Secretary

Dennis Wilson, Chair

DATE

Oak Ridge Site Specific Advisory Board

DW/sbm



Oak Ridge Site Specific Advisory Board

BYLAWS

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I. MISSION

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.

II. FUNCTIONS, SCOPE, AND ACCOUNTABILITY

- A. Functions:** At the specific request of EM, the Board will provide independent advice and recommendations to the Assistant Secretary for EM, the DOE Oak Ridge Office (ORO) Manager, or the DOE ORO Assistant Manager for EM. The Board will provide advice and recommendations in response to charges issued by EM or the Site Manager.
- B. Scope:** The scope of the Board includes:
1. The opportunity for the Board to discuss with EM their proposals and plans for such matters as EM facility expansions and closings, environmental projects, and the impact of environmental regulations; and
 2. Any aspects of EM issues related to cleanup standards and environmental restoration, waste management and disposition, stabilization and disposition of non-stockpile nuclear materials, excess facilities, future land use and long-term stewardship, risk assessment and management, and cleanup science and technology activities.
- C. Accountability:** The Board interacts with the appropriate EM decision makers to provide advice on matters within its scope, on behalf of the citizens of Oak Ridge and the surrounding communities.
1. The Board seeks a free and open two-way exchange of information and views between Board members and EM, where all are invited to speak and to listen.
 2. Board members may request access to independent technical advice, staff, and training.
 3. The Board will develop specific operating procedures and undergo requisite training to ensure that all members will hear a wide range of views and use constructive methods for resolving conflict, making decisions, and dealing with the differing viewpoints.
 4. The Board will always remain accountable to the public and EM, and seek to promote multicultural community involvement. The Board will develop culturally appropriate procedures to ensure public participation in EM's decision-making processes.
 5. In compliance with the Federal Advisory Committee Act, Board meetings will be open to the public, and the Board will give advance notice of a minimum of 15 days. Board meetings will be held at regular times in public locations to encourage maximum public and Board participation.

6. EM will always remain mindful of the various stakeholder interests represented on the Board. It will seek to ensure that all interested parties and stakeholders continue to be adequately and equitably represented.
7. The Board members will send all requests to the EM Deputy Designated Federal Officer (DDFO) to ensure a prompt response. The DDFO is responsible for tracking DOE responses to requests from the Board and ensuring the completeness of those responses.
8. Site Specific Advisory Boards are jointly chartered as the EM Site Specific Advisory Board under the Federal Advisory Committee Act. The Board is thereby subject to the requirements of the EM Site Specific Advisory Board Charter, the Federal Advisory Committee Act (5 USC Appendix), and Federal Advisory Committee Management Requirements (41 CFR 101-6).
9. The Board shall develop and publish an Oak Ridge–specific annual report and seek stakeholder input and develop a general work plan each year based on the Board’s charge to guide the Board and its committees’ activities.
10. The Board will also maintain a repository of the Oak Ridge Board documents.

III. MEMBERSHIP

- A. Authority:** Pursuant to delegated authority, the Assistant Secretary for EM is authorized to appoint and remove EM SSAB members.
- B. Terms of Office:** The Board shall consist of not more than 22 voting members. Two non-voting student representatives identified each year by area high schools will participate in Board activities for one year. The Board membership is on a rotation schedule that will encourage new individuals to participate and will maintain a balance between continuity and diversity inherent in the makeup of the Board.
 1. Terms of office will be two years.
 2. Members may serve three terms for a total of six years.
 3. If after significant recruitment efforts, it is found that the member pool is limited, a request for an exception from term limits may be made by the affected Field Manager to the Assistant Secretary.
- C. Vacancies:** As soon as a vacancy exists following completion of a Board member’s term, resignation, or removal, Board members, members from the Oak Ridge communities at large, or individuals who work in the Oak Ridge area may be considered to fill the vacancy. Nominees should meet, as far as possible, the Board’s existing stakeholder balance, diversity, and geographical distribution. The DDFO shall forward his/her recommendations to the Office of EM in DOE Headquarters for approval. When a vacancy exists due to resignation or removal of a Board member, the vacancy shall be filled by interim appointment for the remainder of the unexpired term in accordance with the DOE EM Site Specific Advisory Board Guidance.

IV. MEMBERSHIP RESPONSIBILITIES

- A. Board Commitments:** Board members make the following commitments:

1. To attend regular meetings and receive training;
2. To review and comment on EM and other documents within their purview that come before the Board, and submit timely recommendations to EM;
3. To be available for committee work between Board meetings, and to participate fully in the affairs of the Board;
4. To work collaboratively and respectfully with other Board members and liaisons in the best interests of both the Board and the public;
5. To represent accurately all matters before the Board;
6. To handle in a responsible manner information and materials provided by the agencies, particularly drafts developed for an agency's in-house use, that might have significant future revisions as part of the agency's working practices;
7. To share any written communication about or for Board activities with the Board as a whole and with the DDFO;
8. To act for the Board or as its representative only with the majority vote of the Board;
9. To serve on at least one committee or task force during any given twelve month period as appointed by the Chair; and
10. To abide by the terms and conditions of the EM SSAB Charter and these bylaws.

B. Liaison Commitments: The Board requests that liaisons make the following commitments:

1. To define and communicate clearly to the Board the respective decision-making processes of the agencies they represent;
2. To provide timely access to information pertinent to EM and associated environmental issues and related decision making;
3. To inform the Board in a timely and proactive manner of agency processes, programs, projects, and activities pertinent to the Board's mission and purpose.

V. BOARD STRUCTURE

A. Chair, Vice Chair, and Secretary: The Board will elect by majority vote, a Chair, Vice Chair, and Secretary, who will ensure that a diversity of viewpoints are considered in all Board discussions. It is preferred that candidates for the office of Chair have previous experience on the Executive Committee to better facilitate the function of said committee.

The Chair will support the Board in a balanced and unbiased manner, irrespective of any personal views on a particular issue and see that all Board members have the opportunity to express their views.

1. The election for Chair, Vice Chair, and Secretary will be held before the first meeting of the fiscal year. The terms of the Chair, Vice Chair, and Secretary will ~~be one year beginning on the day they were elected.~~ be one fiscal year.
2. The Chair will serve as liaison with the Federal Coordinator, support staff, and facilitator(s), assisting in the preparation of the agendas, minutes of the meetings, and other necessary arrangements.

Commented [KS(1): Added at the suggestion of board officers

Commented [KS(2):

Commented [KS(3): This will allow for us to vote in August as we did last year, rather than at the September meeting. Also leaves room for the newly elected to attend the September executive meeting prior to assuming leadership in October.

3. The Chair certifies to the accuracy of all minutes.
 4. The Chair signs the certification of a recommendation that the Board has passed by consensus/majority. If consensus/majority is not reached, the Chair may refer the matter back to a committee or sign and send to DOE the majority and minority reports.
 5. The Chair assures necessary administrative support for the committees and task forces, and requests DOE support through the DDFO.
 6. The Chair shall recommend appointment of members of task forces to the DDFO and ensure that the membership of the committees and task forces reflects the diversity of the Board to the extent practicable.
 7. The Chair serves between regular meetings of the Board as contact for EM, interest groups, and the general public.
 8. The Vice Chair serves as Chair in the absence or incapacity of the Chair.
 9. The Secretary shall:
 - a. Assume the duties of the Vice Chair in his/her absence or disability;
 - b. Work with administrative staff to give due notice to DOE, Board members, and the public of all Board and committee meetings;
 - c. Keep full and accurate records of the proceedings of the Board and committee meetings (including attendance), with assistance from administrative staff;
 - d. Notify the Executive Committee of any member with two consecutive absences from regularly scheduled Board meetings;
 - e. Review minutes of Board meetings with the administrative staff for timely distribution to Board members; and
 - f. Work with the DOE Federal Coordinator, administrative staff, and any designated committee to review an annual report and an annual work plan. The Board year begins October 1.
 - g. Prior to any vote, provide a status of members present to verify whether a sufficient quorum exists for recommendations.
 10. The Chair, Vice Chair, and Secretary will have other duties as assigned by the Board.
 11. In the absence of the Chair, Vice Chair, and Secretary, the immediate past Chair, if that person still serves on the Board, shall serve as Chair of the Board meeting. In the absence of the immediate past Chair, the immediate past Vice Chair, if that person still serves on the Board, shall serve as Chair of the Board meeting. If none of these persons is present, those Board members present shall select, with the approval of the DDFO, a Chair for the meeting.
 12. No officer of the Board shall serve more than two consecutive years in the same office.
- B. Committees:** The Board will establish its committees prior to the beginning of each fiscal year to reflect the Board's approved work plan for that year. ~~Each committee so established will submit before October 1st an annual work plan for approval by the Board and DOE.~~

Commented [KS(4)]: Committee workplans have been discontinued

C. Other Committees and Task Forces: The Board may establish ad hoc committees or task forces as it deems necessary.

D. Structures of Committees, Ad-hoc Committees, and Task Forces:

1. Membership on committees will be on a volunteer basis, and Board members must serve on at least one committee.
2. Committee members may develop additional operating procedures consistent with the bylaws.
3. Committees may not directly submit recommendations to EM. They are solely responsible for producing draft proposals or information for the full Board. Before presenting a recommendation to the Board, the committee should have passed the recommendation by majority vote of the members attending the meeting.
4. The committees will meet independently of the Board. If the meetings of the committee are open to the public, they must hold them in public locations after appropriate notice.
5. If a written summary of the committee meetings is prepared, the Chair of the committee will provide it to the Board.
6. Election of the Chair for the committees will occur annually, or as necessitated by vacancies. Standing committees may, at their discretion, internally select, elect, appoint, or remove committee Co-Chair or Vice Chair (either title bearing the same intended meaning), from among only the properly appointed Board members of the committee. Co-Chairs or Vice Chairs shall serve and act in the temporary absence of the duly elected committee chairperson.
7. Committee Chairs shall notify the Board Chair and the DDFO of the selection, election, appointment, or removal of any standing committee Co-Chair or Vice Chair.
8. Except for the ~~Nominating Board Finance & Process~~ and Executive committees, non-Board members shall be allowed to vote in committee meetings but shall not hold Committee leadership positions.
9. Ad-hoc committees and task forces shall be established by the Board for the purpose of investigating special topics. The charge to, Board membership of, and Chair of the ad-hoc committees and task forces shall be established by the Board and approved by the DDFO. The Board shall establish the charge to, term of, and reporting requirements of each ad-hoc committee and task force.
10. Ad-hoc committees and task forces shall be confirmed by the Chair, upon recommendation of the Chair of the respective committee, ad-hoc committee, or task force. Members of the public may be allowed to participate on a non-voting basis for any ad-hoc committee except for the Nominating Committee. The DDFO shall concur in all recommendations for participation by non-Board members.

E. Executive Committee: The Board has an Executive Committee consisting of the Chair, Vice Chair, Secretary, and Chairs, Co-Chairs, or Vice Chairs of the various standing committees established during the fiscal year. The Executive Committee shall meet at least bimonthly and may hold other meetings at the call of the Board Chair to consider matters of importance

Commented [KS(5): The Board Finance and Process Committee no longer exists

that may require immediate resolution. The DDFO or the DDFO designated SSAB Federal Coordinator shall serve as a non-voting member of the Executive Committee.

1. During the intervals between Board meetings, decisions involving the daily business operations of the Board (e.g., setting budgets and agendas, coordinating committee requirements and activities, etc.) shall be made by majority vote of the Executive Committee. However, this committee shall have no authority to set Board policy or make any recommendations to EM.
2. Actions on routine general administrative matters requiring time-critical action by the Executive Committee may be handled by polling members of the Executive Committee through any quick means of communication. Decisions will be validated by the Board Chair and documented in the minutes of the next regularly scheduled Board meeting.
3. The Executive Committee shall have no authority to act for the Board on any motion or recommendation that affects a decision made by the full Board. Any motion or recommendation affecting a decision of the Board shall be submitted by the Executive Committee to the Board for consideration at the next regularly scheduled Board meeting.

F. Work Sessions: Work sessions are defined as meetings of the Board, including ex officio members, at which official action may not be taken. They must, however, be formally advertised, to be in compliance with the Federal Advisory Committee Act.

G. Executive Session (Closed Session): Upon approval of the Secretary of Energy, the Board shall announce fifteen days in advance of the meeting an Executive Session for matters concerning litigation or private personnel matters.

H. Removal of Board Officers: An officer of the Board (Chair, Vice Chair, Secretary, or standing committee Chair, Vice Chair, or Co-Chair), may be removed from their office for misconduct or neglect of duty by a vote of the Board upon the recommendation of the Executive Committee, the recommendation of the DDFO, or a duly authorized motion tendered by a Board member at a regularly scheduled Board meeting.

I. Replacement of Officers:

1. A Board office vacancy (Chair, Vice Chair, or Secretary) that comes into existence will be announced at a regularly scheduled Board meeting.
2. An election by the entire Board will be held at the next regularly scheduled Board meeting after the meeting at which the vacancy was announced. In the event of a removed, resigned, or abandoned vacancy in the Chair, Vice Chair, or Secretary, the term of office of any interim replacement election for the Chair, Vice Chair, or Secretary shall expire on September 30th and the regularly scheduled annual election shall be held as provided in Article V, Section A, Number 1.

3. If both the Chair and Vice Chair become vacant at or near the same time, then the Board shall, at the meeting at which the vacancy is announced, elect by majority vote a Chair and Vice Chair to serve the Board until, and at, the next regularly scheduled Board meeting. To prevent delay in Board work, and in the absence of a timely interim election, the Executive Committee shall appoint, subject to DDFO approval, an Acting Chair and Vice Chair (if needed or desired), from among the voting members of the Executive Committee, to serve the Board until the next regularly scheduled Board meeting.

VI. DECISION MAKING

All Board decisions relating to recommendations and advice to DOE shall be reached through parliamentary procedure. The Board shall strive for substantial agreement among Board members for approval of recommendations and advice to DOE.

- A. Quorum for Meetings:** For the purpose of conducting business, a quorum shall be a simple majority of the membership of the Board or Executive Committee.
- B. Approval of Recommendations:** Recommendations shall be approved by majority vote of the entire Board membership.
- C. Proxy Voting:** Voting by proxy on any Board or committee action is prohibited.
- 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.)
- E. Removal of Officers:** An officer of the Board may be deposed from office for misconduct or neglect of duty in office by a two-thirds vote of the Board.
- F. Requirements for Recommendations to EM:**
 1. Standing committees, the Executive Committee, or individual members may propose recommendations to the Board.
 2. Proposed recommendations must be in writing.
 3. Proposed recommendations will be included in Board packets or be made available to members prior to the Board meeting, along with supporting background documentation.
 4. Proposed recommendations will be discussed at Board meetings and will be approved, rejected, or returned to committees for further work (e.g., editing, refinement, and incorporation of public and/or members' comments).
 5. Proposed recommendations will be introduced as motions for Board approval.
 6. When an issue comes before the Board, the Chair may refer the issue to the appropriate standing committee or create an ad-hoc committee for that issue. The standing committee or ad-hoc committee will report progress to the Board at the next meeting.
 7. Board members who disagree with an approved recommendation should document it in writing.

8. When it appears that the Board has reached agreement on a particular recommendation, the Chair may call for a vote.
9. Recommendations dealing with complicated and/or controversial issues may require more than one draft and may take two or more months to evolve into a form that is acceptable by a majority of the Board.

G. Administrative Decision Making:

1. Administrative functions of the Board may be delegated to the Chair who may assign actions to the Federal Coordinator and/or his/her staff.
2. If the Board finds need to review or affirm specific decisions made under the authority delegated to the Chair, such affirmation will be expressed by a majority vote of the Board at the next meeting.

H. Procedures and Parliamentary Law: The current edition of “Robert’s Rules of Order” shall apply on all questions of procedures and parliamentary law not specified in these bylaws.

VII. ROLE OF THE FACILITATOR

A professional facilitator may be hired to help the Board organize its work, prepare an agenda based on consultations with the Board and the Chair, facilitate the Board meetings, and work with the staff to prepare the minutes of the meetings.

VIII. CONDUCT AND FORMAT OF MEETINGS

A. Meeting Format:

1. Public notices will be printed in the Federal Register at least fifteen (15) days before the meeting. Announcements may be made on the radio and in local newspapers.
2. The Board will meet as needed, with the length of meetings determined by the agenda.
3. The Board will submit its agenda for the approval of the DDFO. In preparing the agenda, the Board reviews its work plan and, if appropriate, obtains additional input from its members and committees and the public.
4. Meetings will be open to the public; a section of the meeting room will be set aside for observers; and public comment is invited at appropriate times during a meeting.
 - a. There will be a fixed agenda time for public comment. A non-recused Board member may not address the Board during the time set aside for public comment. The public comment period may be extended by the Chair or by consensus of the Board members in attendance.
 - b. If required, at the discretion of the Chair, the fixed time will be divided equally among the members of the public who request to speak.
 - c. Before a decision on a recommendation is made, the Chair may invite members of the public to offer their input. The Board will determine in advance how much time they will allocate for public input.

- d. Members of the public may offer their comments in writing and give them to the DDFO.
 - e. Time will be set aside for Board member comments during each meeting.
5. Any meeting will be set up in terms of both the physical arrangements and the agenda to facilitate hearing and discussion.
 6. Minutes of the meetings will be kept by an individual designated by the Chair, distributed to the Board members for their review and made available to the public. Each meeting agenda will include the opportunity for members to make revisions to the minutes of the previous meetings.

The Chair or Vice Chair must approve the minutes within 90 calendar days of the meeting to which they relate. In the absence of the Chair or Vice Chair the DDFO must make such certification.

7. Any product of the Board, such as policies, positions, reports, advice or recommendations given to DOE, must be reviewed by the Board in final distribution form before distribution and being placed in the DOE public reading rooms and any other places deemed appropriate.

B. Conduct of Meetings:

1. The Board may utilize a neutral third party facilitator to assist it in accomplishing its mission. In all instances the facilitator will operate in a completely neutral, balanced, and fair manner.
2. Board members will show respect to each other, EM, liaisons, and the public.

IX. BUDGET

1. **Authority:** ~~The Board will provide a proposal to the DDFO.~~ Funding amounts will be determined yearly based on the Board’s approved work plan and availability of funds. The DDFO retains the fiscal responsibility for the Board but may assign a fiscal agent acceptable to EM.
2. **Compensation:** Board members will serve without compensation but may receive reimbursement for direct expenses related to the work of the Board and meeting attendance.
3. **Travel Expense:** Board, committee, and task force members are required to follow applicable federal travel regulations. All travel expenses must be submitted to the Federal Coordinator for reimbursement according to Federal guidelines. Trip reports by Board members must be prepared within 30 days and submitted to the support staff for inclusion in the Board’s records.

Commented [KS(6): The board no longer determines its budget and may not submit a budget proposal.

X. EVALUATION

- A. The Chair shall appoint a committee of members to conduct an annual evaluation to assess how adequately it is representing stakeholder interests and meeting the needs of the public. The Board may also evaluate the responsiveness of EM. After Board approval, but no later than December 31st, the report will be submitted to EM.
- B. The Board may evaluate the responsiveness of OREM to recommendations and other questions.

Commented [KS(7)]: Per DOE Headquarters, the board may not conduct a survey or evaluation of stakeholders or the public. Any such activities must be conducted by HQ to ensure proper legal approval and public notice requirements are met.

The board may submit concerns to OREM at any time without formation of a committee.

XI. CONFLICT OF INTEREST

- A. **Definition:** Board members are prohibited from personally and substantially participating as a Board member in any particular matter in which the Board member or the Board member’s spouse, minor child, general partner, or employer has a financial interest. This restriction also applies if the Board member is negotiating or has any arrangement concerning prospective employment with any person or organization that has a financial interest in any particular matter before the Board.
- B. **Enforcement of Conflict of Interest Policy:** Questions concerning conflict of interest shall be referred to the DDFO and/or the Federal Coordinator, who will seek the advice of legal counsel for resolution.
- C. **Recusal:** If a Board member is aware of a conflict of interest, as defined above, the member shall immediately inform the DDFO and the Board of the interest and shall refrain from participating in discussions and recommendations in which a conflict or potential for conflict of interest exists.
- D. **Principles of Conduct:** Board members shall abide by the following conflict of interest principles:
 - 1. Members shall refrain from any use of their membership, which is or gives the appearance of being motivated, by the desire for private gain.
 - 2. Members shall not use, either directly or indirectly for private gain, any inside information obtained as a result of Board or committee service.
 - 3. Members shall not use their positions in any way to coerce, or give the appearance of coercing, another person to provide a financial benefit to the member or any person with whom the member has family, business, or financial ties.
 - 4. Members shall not knowingly receive or solicit from persons having business with DOE anything of value as a gift, gratuity, loan, or favor while serving on the Board or in connection with such service.
 - a. **Exceptions:**

Members may receive an unsolicited gift from persons having business with or an interest in DOE if:

 - i. The gift has an aggregate market value of \$20 or less per occasion, provided that the aggregate market value of the individual gift received from any one person under the authority of this paragraph shall not exceed \$50 in a calendar year;

- ii. The gift is motivated by a family relationship or personal friendship rather than a member's position; and
- iii. The gift results from the business or employment relationship of a member's spouse or the outside business or employment activities of a member when it is clear that such gifts are not enhanced because of the member's position.

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.
- B. Approval:** All amendments to these bylaws must be approved by the Designated Federal Officer in consultation with the Office of General Counsel.

XIII. ADOPTION OF THE BYLAWS

- A.** These bylaws will be effective:
 - 1. Upon the affirmative vote of the Board membership,
 - 2. Execution by the Chair,
 - 3. Review and approval by the DOE Office of the General Counsel, and
 - 4. Approval of the EM SSAB Designated Federal Officer.
- B.** All previous bylaws or procedures are hereby rescinded.

XIV. SUBORDINATION AND SEVERABILITY OF THE BYLAWS

If a conflict arises with respect to any provision of these Bylaws and federal statutes, the laws of the state of Tennessee, or federal or state regulatory authority, then the superseding law or regulation shall control. In the event that any provision of these bylaws is invalid, such invalidity shall not affect the remaining provisions that shall continue in full force and effect.

APPROVED: November 14, 2007

REVISED: February 11, 2015

FY 2019 ORSSAB Work Plan/Schedule

Date	Event	Topic	Presenter	Issue Group	Location
MARCH 2019					
Wed., 3/6	Executive	General Business			DOEIC
Wed., 3/13	Monthly meeting	Aquatic Ecology Research and Technology Development in East Fork Poplar Creek	Phillips/ Peterson	Branch, Eastburn, Price, Shoemaker, Swindler, Tapp	DOEIC
Wed., 3/20	Site tour	On-site tour/Q&A	Phillips/ Peterson/ Williams		
Wed., 3/27	EM/Stewardship	Aquatic Ecology Research and Technology Development in EFPC discussion; continued discussion of Ongoing Groundwater Efforts	Phillips/ Peterson		DOEIC
APRIL 2019					
Wed., 4/3	Executive	General Business			DOEIC
Wed., 4/10	Monthly meeting	Extending Operational Life of Facilities & Reducing Surveillance and Maintenance Requirements Briefing	McMillan	Holden, Perez, Shields, Swindler, Tapp	DOEIC
	Site tour	<i>(No site tour)</i>			
Wed., 4/24	EM/Stewardship	Extending Operational Life of Facilities & Reducing Surveillance and Maintenance Requirements discussion;			DOEIC
MAY 2019					
Wed., 5/1	Executive	General Business			DOEIC
TBD	Community Budget Workshop		Mullis/ Stokes	Price, Wilson	Bldg. 2014 Room G
Wed., 5/8	Monthly meeting	<i>(No ORSSAB monthly meeting due to Community Budget Workshop)</i>			DOEIC
Wed., 5/22	EM/Stewardship	FY 2021 Budget Development/prioritization input detailed discussion	Thompson		DOEIC
JUNE 2019					
Wed., 6/5	Executive	General Business			DOEIC
Wed., 6/12	Monthly meeting	Excess Contaminated Facilities update	McMillan/ Henry	Baker, Shields, Swindler	DOEIC
TBD	Site tour	On-site tour/Q&A	McMillan/ Henry/ Williams		
Wed., 6/26	EM/Stewardship	Excess Contaminated Facilities discussion; continuation of FY 2021 Budget discussion.			DOEIC
JULY 2019					
TBD	Member training	Educate new members & tour of sites; current members welcome. ~4 hours	Adler / Williams		DOEIC & sites
Wed., 7/3	Executive	<i>(No meeting)</i>			DOEIC
Wed., 7/10	Monthly meeting	<i>(No meeting)</i>			
Wed., 7/24	EM/Stewardship	<i>(No meeting)</i>			DOEIC

FY 2019 ORSSAB Work Plan/Schedule

Date	Event	Topic	Presenter	Issue Group	Location
AUGUST 2019					
Wed., 8/7	Executive	Annual Planning Meeting			DOEIC
Sat. 8/24	Annual meeting	FY2019 review and planning for FY2020	DOE/EPA/TDEC liaisons		Tremont Lodge, Townsend, TN
Wed., 8/14	Monthly meeting	<i>(No ORSSAB monthly meeting)</i>			
	Site tour	<i>(No site tour)</i>			
Wed., 8/28	EM/Stewardship	<i>(No meeting)</i>			
SEPTEMBER 2019					
Wed., 9/4	Executive	General Business			DOEIC
Wed., 9/11	Monthly meeting	Update on the Mercury Treatment Facility	Henry		DOEIC
TBD	Site tour	<i>(No site tour)</i>			
Wed., 9/25	EM/Stewardship	Update on the Mercury Treatment Facility discussion			DOEIC
FY2020 - OCTOBER 2019					
Wed., 9/2	Executive	General Business			DOEIC
Wed., 9/9	Monthly meeting	Input on Reuse and Historic Preservation Efforts at East Tennessee Technology Park	Cooke	Holden, Perez, Shields, Shoemaker, Tapp	DOEIC
TBD	Site tour	<i>(No site tour)</i>			
Wed., 9/23	EM/Stewardship	Input on Reuse and Historic Preservation Efforts at East Tennessee Technology Park discussion	Cooke		DOEIC

EM Project Update

ETTP	February	March
Final ETTP Main Plant Area Groundwater ROD		The Supplemental Sampling & Analysis Plan for Main Plant GW Feasibility Study Well Installation was approved by the regulators.
Zone 2	The K-29 Slab Removal is progressing with concrete removal approximately 79 percent complete and waste hauling approximately 83 percent complete.	The K-29 Slab Removal is progressing with concrete removal approximately 89 percent complete and waste hauling approximately 93 percent complete.
	The Addendum for the Implementation Process to the Remedial Design Report/Remedial Action Work Plan for Zone 2 Soils, Slabs, and Subsurface Structures was sent to the regulators for approval.	The Technetium-99 project is 57 percent complete.
	The Sampling & Analysis Plan for EU 25 was submitted to the regulators for approval.	The D2 PCCR for EU 28 was submitted to the regulators for approval. The Sampling & Analysis Plan for EU 12, K-633 was also submitted to the regulators for approval.
Remaining Facilities	The K-1037 project began mobilization of demolition equipment and materials and demolition is underway. This building is the largest remaining facility at ETTP.	Removal of exterior transite is 60 percent complete on the K-1037 project. Demolition of radiologically contaminated portion of building is complete, and waste hauling is 20 percent complete. Overall, demolition is 55 percent complete.
	Centrifuge Building K-1210 characterization/sampling is 44 percent complete, ACM abatement is complete, and hazardous/universal waste removal is 80 percent complete.	Centrifuge Building K-1210 characterization/sampling is 55 percent complete and hazardous/universal waste removal is 86 percent complete.
	Centrifuge Building K-1220 characterization/sampling is 63 percent complete, ACM abatement is complete, and hazardous/universal waste removal is 89 percent complete.	Centrifuge Building K-1220 hazardous/universal waste removal is 91 percent complete.
	Five of the nine Balance of Site Facilities buildings were demolished (Portals 3,7,14,15 and K-1045). Brick removal is 91 percent complete at K-1034-A, Characterization/sampling is complete and removal of ACM and transite is complete in K-1414.	K-1414 demolition is complete. For the K-1423 building, characterization/sampling activities are 20 percent complete, universal waste removal is 35 percent complete, and mobilization for deactivation is 50 percent complete.
		Centrifuge Building K-1200 characterization is 20 percent complete and asbestos-containing material abatement is 24 percent complete.
		The Waste Handling Plan for Poplar Creek High Risk Facilities & Tielines Addendum V was submitted to the regulators for approval.

EM Project Update

ETTP Historic Preservation	Continued framing interior walls and partitions, installing electrical service equipment, running conduit, pulling wire, hanging dry wall, and installing HVAC duct. Removed old asphalt from the site. Continued fabrication of exhibit structures, conservation of artifacts, preparation of exhibit and graphic mockups, and preparation of audiovisual productions. Received technical bid packages from companies responding to RFP for the Equipment Building and Viewing Tower.	Progress on the fabrication of exhibit structures, conservation of artifacts, preparation of exhibit and graphic mockups, and preparation of audiovisual productions continues.
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EM Project Update

ORNL	February	March
Bethel Valley ROD		The Waste Handling Plan for the NW Quad/NE Laydown Appendix D (Sampling & Analysis of 3500 Area Slabs) was submitted to the regulators for approval.
		The Remedial Action Work Plan Attachment Q for the 3500 Area (EU 5) was submitted to the regulators for review.
Melton Valley ROD		The Removal Action Report for White Oak Dam Spillway Gates was submitted to the regulators for review.
Molten Salt Reactor Facility	Changed out the Reactive Gas Removal System (RGRS) alumina traps and molecular sieve and completed the change-out of the RGRS inert gas station pressure regulators. Leak tests were performed, ensuring that the system is ready to operate.	Completed the scheduled venting of three legacy spent alumina traps and one molecular sieve to prepare for waste shipment.
	Completed the venting and packaging of the last two remaining high-dose NaF traps at MSRE. Disposing of this equipment reduces risk to the workers and the ORNL site.	Coordinated the shipment and disposal of the cyclone separator, one of the last remaining pieces of equipment awaiting disposition. Unused salt casks that remained onsite are also being prepared for offsite shipment to a metal recycling company.
U-233 Disposition	The subcontractor has mobilized to Building 2026 in preparation for replacement of the facility's 200-ton chiller. Began deactivation and air gap of existing chilled water pump and removal of insulation.	Began preparation for demolition of the west end of Building 3017 by removing asbestos containing insulation and utility isolation. Also continuing security system installation in Building 2026 in preparation for Oak Ridge oxide processing activities.
ORNL Facilities D&D	Analysis is underway on the baseline reactor pool water samples. The project completed secondary electrical isolations, and the remaining secondary mechanical isolations have begun, in support of deactivation activities.	Work has started characterizing metal in the reactor pool of the 3010 Bulk Shielding Reactor. Preliminary results showed zero activation in the piping and indicate the absence of fuel particles in the system. The remaining sampling will focus on known irradiated items.
	The Quality Assurance Project Plan and the Sampling & Analysis Plan for the Tritium Target Preparation Facility was submitted to the regulators for review.	Completed the plugging and abandonment of the two groundwater wells located in the Bethel Valley 3500 Area. The monitoring wells had not been used recently and were an obstacle to a new Office of Science construction project.
		The Waste Handling Plan Addendum for the Bulk Shielding Reactor was submitted to and approved by the regulators.
Y-12	February	March
Outfall 200 Mercury Treatment Facility	The DOE construction contractor is providing submittals and RFIs for review/response prior to mobilization. DOE is holding weekly construction progress meetings with their contractor.	The DOE construction contractor continues to provide submittals and RFIs for review prior to approval to mobilize.
Disposal Area Remedial Action (DARA) Soils	Completed removing and shipping of approximately 4,000 cubic yards of contaminated soil to EMWMF. The total number of shipments to the onsite disposal cell was 259.	Work is now focused on removing approximately 21 cubic yards of remaining soil that will be shipped to the Nevada Nuclear Security Site (NNSS).

EM Project Update

Y-12	February	March
Y-12 Facilities D&D	The PCCR for COLEX (West Side) was submitted to the regulators for review/approval.	A fogging demonstration of debris from COLEX was given utilizing materials and personnel assistance from the Idaho National Laboratory. The demonstrations utilizing other mechanical methods for removing scale and mercury from piping are more than 70 percent complete.
	All mechanical and electrical isolations were completed for the Biology Complex, enabling the removal of system piping. This facilitates asbestos abatement, universal waste removal, and construction elevator installation.	Interior and exterior building preparations for installation of construction elevators is approximately 90 percent complete at the Biology Complex. Another focus area is connecting the temporary power systems to the electrical grid. Generators are currently being utilized that only support limited activities.
	Risk reduction activities inside Alpha 4 area approximately 40 percent complete. This includes cleanup of 60 percent of known mercury spills inside the building and borescoping approximately 50 percent of the system piping identified as potentially having problem areas of mercury. Testing of mechanical pipe cleaning methods is also underway.	
Off-Site Cleanup/Waste Management	February	March
Transuranic Waste Processing Center (TWPC)	A Carlsbad Field Office team visited TWPC to conduct the annual review of the TRU inventory.	The annual review from the Carlsbad Field Office team was completed with no issues.
	OREM reviewed the TWPC Maintenance Management Program and the TWPC Electrical Program.	
EMWMF (WAC Attainment)		The FY 2019 PCCR was submitted to the regulators for review.
EMDF	A breakdown of the public comments on the Proposed Plan showed well over half of the commenters, including the host County (Roane County), favored the preferred remedy and many others merely requested additional information or an extension to the public comment period. The rest were opposed to onsite disposal. The Responsiveness Summary is under development.	The Field Sampling Plan for Baseline Groundwater & Surfacewater was submitted to the regulators for review.
WRRP	EPA and TDEC comments on the Phase 1 Melton Valley/Bethel Valley Exit Pathway Remedial Investigation Work Plan D1 have been resolved and preparation of the D2 document is underway.	The D2 Phase 1 Melton Valley/Bethel Valley Exit Pathway Remedial Investigation Work Plan was submitted to the regulators for review.
	Sampling under the RSE Phase 2 Offsite Detection Monitoring Work Plan has commenced.	The Remediation Effectiveness Report was submitted to the regulators for review.
	Incorporation of comments on the D0 Remediation Effectiveness Report and preparation of the D1 document are underway.	
Public Involvement Plan		The Public Involvement Plan was submitted to the regulators for review.

Abbreviations/Acronyms List for Environmental Management Project Update

AM – action memorandum

ACM – asbestos containing material

ARARs – Applicable or Relevant and Appropriate Requirements

ARRA – American Recovery and Reinvestment Act

BCV – Bear Creek Valley

BG – burial grounds

BV - Bethel Valley

CARAR – Capacity Assurance Remedial Action Report

CART - carbon steel casing dollies

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

COLEX – column exchange

CS – construction start

CY – calendar year

D&D – decontamination and decommissioning

DARA – Disposal Area Remedial Action

DNAPL – Dense Non-Aqueous Phase Liquids

DOE – Department of Energy

DSA – documented safety analysis

DQO – data quality objective

EE/CA – engineering evaluation/cost analysis

EFPC – East Fork Poplar Creek

EM – environmental management

EMDF – Environmental Management Disposal Facility

EMWMF – Environmental Management Waste Management Facility

EPA – Environmental Protection Agency

EQAB – Environmental Quality Advisory Board

ETTP – East Tennessee Technology Park

EU – exposure unit

EV – earned value

FACA – Federal Advisory Committee Act

FCAP - Facilities Capability Assurance Program

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

HQ – Headquarters

HRE – Homogenous Reactor Experiment

IROD – Interim Record of Decision

ISD - In-Situ Decommissioning

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

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

NPDES – National Pollutant Discharge Elimination System

NPL – National Priorities List

OR – Oak Ridge

ORGDP – Oak Ridge Gaseous Diffusion Plant

OREIS – Oak Ridge Environmental Information System

OREM – Oak Ridge Office of Environmental Management

ORNL – Oak Ridge National Laboratory

ORO – Oak Ridge Office

ORR – Oak Ridge Reservation

ORRR – Oak Ridge Research Reactor

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

RGRS – Reactive Gas Removal System

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

RSE – Remedial Site Evaluation

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

UPF – Uranium Processing Facility

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

VOC – volatile organic compound

VPP – Voluntary Protection Plan

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	Cost	Website	Deadline to Submit Requests
FY 2019					
Waste Management Symposium (Attendees: Allen, Price)	March 3-7, 2019	Phoenix	\$1,200	www.wmsym.org	9/1/18
National Environmental Justice Conference & Training Requests: Shields, Baker	March 13-15, 2019	Washington, D.C.	none	http://thenejc.org	11/1/18
DOE National Cleanup Workshop Requests: Shields, Lohmann, Burroughs	Sept. 10 -12, 2019	Alexandria, VA	\$425	www.cleanupworkshop.com	3/17/19
2019 Spring Chairs Meeting Requests: Lohmann, Wilson, Tapp	May 7-9, 2019	Aiken, SC	none		April 2
RadWaste Summit Requests: Shields	Sept. 3-5, 2019	Henderson, Nevada	\$625	http://www.radwastesummit.com/	April 10
Perma-Fix Nuclear Waste Management Forum Requests: none	TBD/Likely November			https://ir.perma-fix.com/upcoming-events	TBD/likely July
2019 Fall Chairs Meeting	Oct. 28-30, 2019	Sun Valley, Idaho	none		TBD/likely August
EPA Community Involvement Training Requests: none	TBD		none	www.epa.gov/superfund/community-involvement-training-program-0	TBD
EPA National Brownfields Conference	TBD	TBD	\$125	https://www.epa.gov/brownfields/brownfields-newsroom	TBD
FY 2020					
Waste Management Symposium Requests: none	March 8-12, 2020	Phoenix	likely \$1200	www.wmsym.org	TBD/Likely August

Shaded trips are closed



FY 2019 Incoming Correspondence

#	Date	To	From	Description	DOEIC, Notified
112	2/28/2019	Japp, DOE	Jones, EPA	EPA Comments for the DOE Preparation of Upcoming Appendix J to the OR FFA	DOEIC, Notified board officers of receipt
113	3/1/2019	Japp, DOE	Young, TDEC	TDEC Comments to the ROD for Interim Actions in Zone 1 K-770	DOEIC, Notified board officers of receipt
114	3/4/2019	Japp, DOE	Jones, EPA	TDEC Position Regarding Long-Term Financial Assurance for the Proposed EMDF	DOEIC, Notified board officers of receipt
115	3/12/2019	Reynolds, Hardin Valley Academy	Noe, DOE	Appointment of a Student Representative to the ORSSAB	DOEIC, Notified board officers of receipt
116	3/12/2019	McDonald, Oak Ridge High School	Noe, DOE	Appointment of a Student Representative to the ORSSAB	DOEIC, Notified board officers of receipt
117	3/5/2019	Japp, DOE	Froede, EPA	EPA receipt of Site Prep Plan for EMDF (DOE/OR/01-2805&D1) & Phase 3 Field Sampling Plan for EMDF (DOE/OR/01-2808&D1)	DOEIC, Notified board officers of receipt
118	3/11/2019	Japp, DOE	Young, TDEC	QA Project Plan for Characterization of the Tritium Target Preparation Facility Building 7025 at ORNL	DOEIC, Notified board officers of receipt
119	3/13/2019	Jones, EPA; Young, TDEC	Japp, DOE	Transmittal of the Federal Facility Agreement Proposed Appendix J	DOEIC, Notified board officers of receipt
120	3/13/2019	Jones, EPA; Young, TDEC	Deacon & Japp, DOE	Transmittal of Exposure Unit Z2-12 K-633 Area Sampling and Analysis Plan	DOEIC, Notified board officers of receipt



FY 2019 Incoming Correspondence

#	Date	To	From	Description	DOEIC, Notified
121	3/13/2019	Jones, EPA; Young, TDEC	McMillan & Japp, DOE	Transmittal of the Addendum for Buildings 3002 3003 3009 3010-A 3026-D 3080 and 3083 and 3107	DOEIC, Notified board officers of receipt
122	3/14/2019	Jones, EPA; Young, TDEC	Henry & Japp, DOE	Transmittal of the Field Sampling Plan for Baseline Groundwater and Surface Water at EMDF	DOEIC, Notified board officers of receipt
123	3/14/2019	Jones, EPA; Young, TDEC	McMillan & Japp, DOE	Transmittal of the Addendum for Spillway Gates to the Removal Action Report for Corrective Actions at White Oak Dam at ORNL (DOE/OR/01-2509&D1/A1)	DOEIC, Notified board officers of receipt
124	3/14/2019	Jones, EPA; Young, TDEC	McMillan & Japp, DOE	Transmittal of the Appendix D Sampling and Analysis Plan for Waste Characterization of the 3500 Area Slabs & Contaminated Soils (DOE/OR/01-2492&D3/A1)	DOEIC, Notified board officers of receipt



FY 2019 Incoming Correspondence

#	Date	To	From	Description	DOEIC, Notified
125	3/14/2019	Jones, EPA; Young, TDEC	McMillan & Japp, DOE	Transmittal of the Attachment Q to the RAWP for Soils, Sediments, & Dynamic Characterization Strategy for Bethel Valley, ORNL Laboratory 3500 Area in Exposure Unit (EU)-5 Characterization & Proposed Remedial Actions (DOE/OR/01-2378&D5 Attachment Q&D1)	DOEIC, Notified board officers of receipt
126	3/15/2019	Jones, EPA; Young, TDEC	Henry & Japp, DOE	EMDF Federal Facility Agreement Milestone Extension Request	DOEIC, Notified board officers of receipt
127	3/13/2019	Japp, DOE	Young, TDEC	Data Quality Scoping Package and the Dynamic Work Plan in Support of a Remedial Action at Exposure Unit 5 in OR	DOEIC, Notified board officers of receipt
128	3/14/2019	Japp, DOE	Young, TDEC	TDEC Comment Letter on FY18 Phased Construction Completion Report for the Low Risk_Low Complexity and Predominantly Uncontaminated Remaining Facilities at ETPP	DOEIC, Notified board officers of receipt
129	3/19/2019	Japp, DOE	Jones, EPA	EPA approval of DOE extension request for EMDF ROD RDWP and the RDR-RAWP	DOEIC, Notified board officers of receipt



FY 2019 Incoming Correspondence

#	Date	To	From	Description	DOEIC, Notified
130	3/20/2019	Japp, DOE	Young, TDEC	Addendum to the Waste Handling Plan for Surveillance and Maintenance Activities at ORNL; Bulk Shielding	DOEIC, Notified board officers of receipt
131	3/20/2019	Jones, EPA; Young, TDEC	Deacon & Japp, DOE	131 - Submittal of Addendum V to Waste Handling Plan - Part 2 for Poplar Creek High-Risk Facilities at ETPP	DOEIC, Notified board officers of receipt
132	3/22/2019	Jones, EPA; Young, TDEC	Japp, DOE	Public Involvement Plan for CERCLA Activities at ORR	DOEIC, Notified board officers of receipt
133	3/25/2019	Jones, EPA; Young, TDEC	Adler & Japp, DOE	Transmittal of the 2019 Remediation Effectiveness Report for ORR	DOEIC, Notified board officers of receipt
134	3/25/2019	Jones, EPA; Young, TDEC	McMillan & Japp, DOE	134 - Final Transmittal of the Phase 1 Melton Valley Bethel Valley Exit Pathway Remedial Investigation Work Plan for ORR	DOEIC, Notified board officers of receipt
135	3/26/2019	Jones, EPA; Young, TDEC	Henry & Japp, DOE	Submittal of the Fiscal Year 2019 Phased Construction Completion Report	DOEIC, Notified board officers of receipt
136	3/25/2019	Japp, DOE	Young, TDEC	Re: Federal Facility Agreement Milestone Modification Request for the EMDF ROD and Follow-On Documents	DOEIC, Notified board officers of receipt
137	3/26/2019	Japp, DOE	Jones, EPA	EPA Comments DOE Proposed FFA Proposed Appendix J Milestones and Planned Starts	DOEIC, Notified board officers of receipt



FY 2019 Incoming Correspondence

#	Date	To	From	Description	DOEIC, Notified
138	3/27/2019	Japp, DOE	Jones, EPA	EPA Comments Amendment to the ROD for Interim Actions in Zone 1, K-770 Areas Soil Cover, ETTP (DOE/OR/01-2796&D1)	DOEIC, Notified board officers of receipt
139	3/28/2019	Japp, DOE	Jones, EPA	EPA Comments FY2018 Phased Construction Completion Report of the Low Risk/Low Complexity & Predominantly Uncontaminated Facilities of the Remaining Facilities Demo Project at ETTP (DOE/OR/01-2803&D1)	DOEIC, Notified board officers of receipt
140	3/28/2019	Jones, EPA; Young, TDEC	Deacon & Japp, DOE	Transmittal of the Phased Construction Completion Report for Exposure Unit Z2-28 in Zone 2, ETTP (DOE/OR/01-2746&D2)	DOEIC, Notified board officers of receipt
141	3/29/2019	Jones, EPA; Young, TDEC	McMillan & Japp, DOE	Transmittal of the Erratum to the Addendum to the Waste Handling Plan for the Molten Salt Reactor Experiment Remediation of Secondary Low-Level Waste Under the Melton Valley Closure Project at ORNL (DOE/OR/01-2200&D1/A1)	DOEIC, Notified board officers of receipt