# Oak Ridge Site Specific Advisory Board Monthly Meeting



Wednesday, February 14, 2024, 6 p.m.

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**

#### PRESENTER BIO

#### CALENDARS

- 1. February
- 2. March (draft)

#### BOARD MINUTES/RECOMMENDATIONS & MOTIONS

1. Draft November 8, 2023 Full Board Meeting minutes for approval

#### **REPORTS & MEMOS**

- 1. FY 2024 ORSSAB Work Plan-Schedule
- 2. Abbreviations & Acronyms
- 3. FY 2024 Incoming Correspondence
- 4. FY 2024 Travel Opportunities
- 5. Member Bios



# Oak Ridge Site Specific Advisory Board Wednesday, February 14, 2024, 6:00 p.m. Hybrid meeting

## **AGENDA**

I.	Welcome and announcements (A. Jones)
II.	Comments from federal and state agency representatives (J. Mullis, R. Petrie, S. Urquhart-Foster, K. Czartoryski)
III.	Presentation: Ongoing Efforts to Assure Waste Disposal Capacity (D. Mayton)
	Questions regarding the <b>presentation/speaker only</b>
IV.	Public comment period (S. Kimel)
V.	Call for additions & motion to approve agenda (A. Jones)
	This ends the presentation portion of the meeting – presenters and subject experts may depart
VI.	Board Business (A. Jones)
VII.	Responses to recommendations & DDFO's report (M. Noe)
VIII	A. EM/Stewardship (M. Butler)  B. Next meeting – February 28 continued discussion on Ongoing Efforts to Assure Waste Disposal Capacity
IX.	Additions to agenda & closing remarks (A. Jones)
X.	Adjourn

#### Dennis Mayton professional bio

Dennis is the senior project manager for the proposed new Environmental Management Disposal Facility landfill and existing landfills for the Oak Ridge Environmental Management office. Previously he managed the Groundwater Program Project Manager. He has been with DOE since 2015.

Prior to his time with the DOE, he was the Environmental Restoration Manager at the Holston Army Ammunition Plant in Kingsport, Tennessee for three years. Before that he worked more than 10 years managing environmental cleanup and engineering geology projects for U.S. Army Corps of Engineers. He also worked for private industry working CERCLA clean up projects at Army Sites.

Dennis has a Bachelor of Science degree in Geology from the University of Tennessee, Knoxville. Also, he served in the U.S. Air Force for four years.



## Oak Ridge Site Specific Advisory Board

## February

2024

**Topic: Efforts to Assure Waste Disposal Capacity** 

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
1	5	6	<b>7</b> Executive Committee meeting – 4 p.m. (virtual)	8	9	10
11	12	13	14 Full Board Meeting – 6 p.m. (hybrid)	15	16	17
18	19 Offices closed for Presidents' Day	20	21	22	23	24
25	26	<b>27</b> Tour	28 EM & Stewardship Committee meeting – 6 p.m. (hybrid)	29		

For information about attending meetings virtually or in person, please email <a href="mailto:orssab@orem.doe.gov">orssab@orem.doe.gov</a> at least 1 week prior to the scheduled meeting.

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



## Oak Ridge Site Specific Advisory Board

## March (draft)

2024

**Topic: FY 2026 Budget Development/prioritization input** 

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	<b>6</b> Executive Committee meeting – 4 p.m. (virtual)	7	8	9
10	11	12	13 Full Board Meeting - 6 p.m. (hybrid)	14	15	16
17	18	19	20	21	22	23
24	25	26	<b>27</b> EM & Stewardship Committee meeting – 6 p.m. (hybrid)	28	29	30
31						

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Many Voices Working for the Community

## Oak Ridge Site Specific Advisory Board

Annual Planning Meeting of the Oak Ridge Site Specific Advisory Board

#### **DRAFT November 8, 2023 Meeting Minutes**

The Oak Ridge Site Specific Advisory Board (ORSSAB) held its full board monthly meeting virtually via Zoom and in person at 1 Science.gov Way on Wednesday, November 8, 2023 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 <a href="https://www.youtube.com/user/ORSSAB/videos">www.youtube.com/user/ORSSAB/videos</a>.

#### **Members Present**

Atilio Anzellotti	Paul Dill	Harriett McCurdy
Kris Bartholomew	Rosario Gonzalez	Christine Michaels
Mary Butler	Amy Jones	Michael Sharpe
Harold Conner, Jr.	Noah Keebler	Tom Tuck

#### **Members Absent**

Mike Mark Thomas McCormick

<sup>1</sup>Third consecutive absence

#### Liaisons, Deputy Designated Federal Officer, and Alternates Present

Jay Mullis, OREM General Manager

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

Roger Petrie, ORSSAB Alternate DDFO, OREM

Morgan Carden, OREM

Michael Vestal, OREM

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

Samantha Urquhart-Foster, EPA

#### **Others Present**

Leah Alexander, OREM Brian Begley, EPA Emily Day, UCOR Jana Dawson, EPA Sierra Generette, UCOR Brian Henry, OREM Shelley Kimel, ORSSAB Staff Sara McManamy-Johnson, ORSSAB Staff Abby Newberry, OREM Angel Perkey, TDEC Erin Sutton, OREM Ten members of the public were present.

#### **Liaison Comments**

**Mr. Mullis** – Mr. Mullis gave members an overview of recent OREM activities and accomplishments. He said OREM finished work on its second reactor at Oak Ridge National Laboratory (ORNL) and started working on a third reactor. He said the work on the second reactor was being tracked by the Deputy Secretary as one of the major projects within EM, and the contractor, UCOR, was able to deliver it ahead of schedule.

Next, Mr. Mullis told members that DOE recently held a groundbreaking ceremony for the new lithium processing facility at Y-12. The facility will be located on land that formerly contained the Biology Complex, which OREM finished removing last year. Lastly, Mr. Mullis told members about an upcoming poster session at the Scarboro Community Center. He said the session would highlight recent accomplishments within OREM.

Mr. Czartoryski – No comments.

**Ms.** Urquhart-Foster – Ms. Urquhart-Foster told members that EPA's recent memorandum of agreement (MOA) with DOE has allowed EPA to hire two new staff members. She introduced Brian Begley, who will be working on groundwater remedies, and John Sayer, who will be working on the Environmental Management Disposal Facility (EMDF) project. She said EPA's main goals for this year are to complete three records of decision (RODs), including the ETTP Main Plant Area Interim ROD, the K-31/K-33 ROD, and the Zone 1 Final ROD.

#### **Presentation**

Ms. Harriett McCurdy introduced OREM's Morgan Carden and Michael Vestal to present on OREM's Excess Facilities.

Ms. Carden began the presentation by giving members an overview of the current state of facilities at Y-12 National Security Complex (Y-12) and OREM's goals for the site. She said the complex has many high-risk facilities that pose various risks and challenges. OREM's goal is to reduce those risks and pave the way for modernization.

Next, Ms. Carden discussed the facilities that have already been demolished, such as the former Biology Complex and Building 9213, or are in preparations for demolition, such as Alpha-2 and Beta-1.

The Biology Complex was originally constructed to perform uranium recovery, and in about 1947 the mission changed to study the biological effects of radiation. She said the cleanup for this facility related to asbestos, polychlorinated biphenyls (PCBs), uranium, and organic material. Pre-demolition activities for the Biology Complex began in May 2016 and lasted almost five years. Demolition began in February 2021 and ended in 2022. The land on which the Biology Complex was located will be the site of a lithium processing facility for the National Nuclear Security Administration (NNSA). A groundbreaking ceremony for the facility was held in October 2023.

Building 9213 and its inside facilities were constructed in 1949 and included the Criticality Experimental Laboratory. Pre-demolition activities began in 2020 and took about two years for completion. Demolition began in summer 2022 and was completed in December 2022. She said the

footprint area is now used as a yard for crews to stage material.

Alpha-2, which was originally constructed for uranium enrichment, is currently in preparation for demolition. Pre-demolition activities include asbestos and beryllium abatement, sampling collection, radiological screening, and removal of loose and hazardous wastes. She said the next activities will be entering the basement of the facility to complete pre-demolition activities and then backfilling it with a flowable fill material that can be dug out later. She said there are plans to go back into the area later to remove some of the basement ceilings. Crews currently cannot do so safely, so the plan is to remove the building and then go back in to remove those basement areas.

Beta-1, which was also originally constructed for uranium enrichment, is also currently in preparation for demolition. She said the pre-demolition activities are similar to those of Alpha-2, however, the Beta-1 basement was filled with water for several years, so crews have been working for many months to pump the water out of the basement. She said that as of this week, crews have pumped for than 1.6 million gallons of water from this basement. Water pumped from the basement goes through a water treatment system in order to meet regulatory limits and is sampled regularly before being discharged into a creek.

Mr. Vestal continued the presentation by giving members an overview of the current state of facilities at ORNL and OREM's goals for the site. He said OREM's goal is to eliminate high-risk facilities, reduce environmental risks, and provide space in support of future research missions.

He said most of the buildings at ORNL that are currently on track for deactivation and demolition are in the central campus, which contributes challenges relating to an active site such as security. He said OREM is responsible for addressing former reactor facilities in the Melton Valley area at ORNL. He continued to outline some of the challenges related to achieving the mission at ORNL, including that weather conditions and personal protective equipment (PPE) requirements may limit daily working hours, ensuring worker safety in radiological areas involves higher technical difficulty and planning, and outdated drawings and lack of information creates unknowns.

Mr. Vestal then gave members an overview of achievements and progress at the site, including demolition of the Tritium Target Facility and the Building 3026 West Cell Bank in 2021, the Bulk Shielding Reactor in 2022, and the Low Intensity Test Reactor in 2023. Major deactivations currently underway include Graphite Reactor support facilities, Isotope Row facilities, the Oak Ridge Research Reactor, and hot cells.

#### Board members asked the following questions:

- Mr. Tuck asked of the total amount of work needed, what percentage of that work has been completed.
  - o Mr. Mullis said it would be fair to say less than 50 percent. He then offered a perspective of the length of time required for cleanup work, describing the timeline for the work completed at the East Tennessee Technology Park (ETTP) and noting that was the timeline on a site controlled by EM. He said it becomes complicated when working on a site that is not operated by EM, where EM must work around their needs. It requires more

coordination just to get the workforce on and off the site.

Mr. Mullis said that about 70 to 80 percent of the hazards are in pre-demolition work and about 70 to 80 percent of the money spent is on pre-demolition work, depending on the facility.

- Ms. McCurdy asked where the water source was in the Beta-1 basement.
  - o Ms. Carden said the water source is groundwater infiltration.
- Mr. Anzellotti asked if there is the possibility of leakage from the water in the Beta-1 basement into groundwater.
  - o Mr. Mullis said yes.
- Ms. Michaels asked for additional information on the basket used in the cleanup at the Oak Ridge Research Reactor pool.
  - o Mr. Vestal said it's a metal basket that is approximately six to eight feet in diameter that has holes in it. The basket is put into the pool, where "hot" items from inside the pool are then put into it to be lifted out. The water drains from the basket and a crane is then used to lift the items from the basket and transfer them to prepare for transport.
- Ms. Jones asked if any of the land being cleared at ORNL would ever be transferred to the public.
  - o Mr. Mullis said that would ultimately be up to the Office of Science to decide since it's that office's site.
- Mr. Bartholomew asked how long the pumps have not been working in the basements of the Alpha and Beta buildings.
  - Mr. Petrie said all those buildings did have or still do have active sump pumps, and depending on the building some of them are still active and some have been turned off over time.
- Mr. Conner asked if there was any mercury in the water in the basement of Beta-1.
  - o Mr. Petrie said just background.
- Ms. McCurdy asked if UCOR trains their own employees or bring in pre-trained people.
- Mr. Mullis said UCOR has a number of programs, including an apprenticeship program they do in coordination with unions. In addition, there are crews already experienced in DOE are brought in, and people brought in through educational partnerships, such as those at Roane State Community College and Tennessee Technology University.

#### **Public Comment**

• Public Comment #1 – Mr. Luther Gibson shared comments on the process surrounding study of Excess Facilities Risk Reduction at Y-12 and ORNL as well as concerns about the operation and engagement of the Board. (See attached)

#### **Board Business/Motions**

- Ms. Jones asked for a motion to approve the agenda.
  - o 11.8.23.1 Motion made by Ms. Michaels and seconded by Ms. Butler. Motion passed.
- Ms. Noe introduced the current slate of officer candidates and asked for any additional nominations. The candidate for Chair was Amy Jones; the candidate for Vice Chair was Kris Bartholomew; the candidate for Secretary was Harriett McCurdy.

Ms. Noe asked for a motion to approve the slate of candidates.

- o 11.8.23.2 Motion made by Ms. Michaels and seconded by Mr. Keebler. Motion passed.
- Ms. Jones asked for a motion to approve meeting minutes.
  - 11.8.23.3 Motion to approve the August 9, 2023, meeting minutes.
     Motion made by Ms. McCurdy and seconded by Mr. Dill. Motion passed.

#### Responses to Recommendations & Alternate DDFO Report

Ms. Noe told members there are no open recommendations. She referred members to the draft work plan and said it had not been approved yet pending the election of a board chair.

#### **Committee Reports**

Executive - None.

<u>EM & Stewardship</u> – Mr. Sharpe said the committee produced a recommendation on the groundwater remedy at ETTP and said the November committee meeting would include elections for officer cochairs.

#### Additions to the Agenda & Open Discussion

Ms. Jones encouraged members to become active in issue groups.

Ms. Jones and Ms. McCurdy discussed their recent participation in a two-day meeting for UCOR's five-year plan.

#### **Action Items**

None

The meeting adjourned at 7:10 p.m.

I certify that these minutes are an accurate account of the November 8, 2023 meeting of the Oak Ridge Site Specific Advisory Board.

Amy Jones, Chair

Harriett McCurdy, Secretary

February 14, 2024

Oak Ridge Site Specific Advisory Board

AJ/sbm

Public Comment to Oak Ridge Site Specific Advisory Board Luther Gibson November 8, 2023

My name is Luther Gibson. I was a member of the Oak Ridge Site Specific Advisory Board from 1999-2005 and Board Chair 2001-2002. I retired in 2017 after more than 40 years of service at Paducah, Y-12, ETTP, and Y-12 a second time.

I have comments on the process surrounding study of the issue of Excess Facilities Risk Reduction at Y-12 and ORNL as well as the same concerns I have previously expressed about the operation and engagement of the Board.

With exceptions, topics amenable to recommendations have documents and other readily available material that can be studied to learn more about the issue beyond the simplified presentation during a meeting. The CERCLA process and its public involvement are somewhat of a model as a proposed plan is backed up by a feasibility study and other documentation and data in an Administrative Record. Lack of justifying information to evaluate the proposed remedy versus alternatives has to be addressed if raised as an issue. Recommendations on budget priority are informed by past and current budget justification and execution. A budget priority recommendation would, however, be better informed if more information from the Life Cycle Baseline or the Life Cycle Baseline itself was shared. We can revisit that during discussion on future budget priorities.

A true evaluation of risk reduction in facilities would start with identification of all facilities and hazardous materials under purview of the Oak Ridge Environmental Management Program.

What information is available as resource and background for this issue? Well, the Oak Ridge Reservation Cleanup Contract with United Cleanup Oak Ridge, LLC (UCOR) lists everything with a facility number for which the contractor has cleanup, closure, surveillance and maintenance, or monitoring responsibilities. The contract with Isotek has similar information. In addition, these contracts cover legacy wastes with difficult disposition that should be expedited nonetheless to reduce risks. An All-Hazards Survey required by DOE Order 151.1D (Comprehensive Emergency Management System) should address everything assigned a facility number along with its potential to cause health, safety, and environmental incidents. This document also screens hazardous and radiological materials and need for further analysis in an Emergency Planning Hazards Assessment (EPHA). The analysis presented in an EPHA can be used to evaluate the reduction of potential event consequences if actions are taken such as reducing the hazardous materials present. As much information as can be shared from the Emergency Management technical planning basis documents would better inform understanding of this issue.

My concerns about the operation and engagement of the Board continue to broadly be frequency of meetings and limitations on the topics addressed.

Thank you for your attention.

Executive meeting 4-5 p.m.  Monthly meeting 6-7:30 p.m.	Site tour	EM/Stewardship meeting 6-7 p.m.
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Date	Event	Topic	Recommendation Required	Presenter	Issue Group	Location
			OCTOBER 2023			
Wed., 10/4	Executive	General Business				DOEIC
Wed., 10/11		No meeting due to EM SSAB Fall Chairs' Meeting				DOEIC
	Site Tour	(No site tour)				
Wed., 10/25	EM/Stewardship	If needed				DOEIC
			NOVEMBER 2023			
Wed., 11/1	Executive	General Business				DOEIC
Wed., 11/8		Excess Facilities Risk Reduction Activities at ORNL & Y-12	Optional	Carden/ Vestal	Bartholomew, Butler, Conner, Jones, McCurdy, Michaels, Sharpe, Shields, Weigel	DOEIC
TBD	Site tour	On-site tour/Q&A		Carden/ Vestal		
Wed., 11/29		Continued discussion on Excess Facilities Risk Reduction Activities at ORNL & Y-12		Carden/ Vestal		DOEIC
			DECEMBER 2023			
Wed., 12/5	Executive	(No meeting)				
Wed., 12/12	Monthly meeting	(No meeting)				
	Site tour	(No site tour)				
Wed., 12/26	EM/Stewardship	(No meeting)				

Date	Event	Topic	Recommendation Required	Presenter	Issue Group	Location
			JANUARY 2024			
Wed., 1/2	Executive	(No meeting)				
Wed., 1/9	Monthly meeting	(No meeting)				
TBD	Member Training	New Member Training	N/A	Noe/Petrie/ Newberry		Virtual
	Site tour	(No site tour)				
Wed., 1/23	EM/Stewardship	If needed				
			FEBRUARY 2024			
Wed., 2/7	Executive	General Business				DOEIC
Wed. 2/14	Monthly meeting	Ongoing Efforts to Assure Waste Disposal Capacity	Optional	Mayton	Butler, Dill, Jones, McCurdy, Michaels, Sharpe, Tuck, Shields, Weigel	DOEIC
TBD	Site tour	On-site tour/Q&A		Mayton		
Wed., 2/28	EM/Stewardship	Continued Discussion on Ongoing Efforts to Assure Waste Disposal Capacity		Mayton		
			<b>MARCH 2024</b>			
Wed., 3/6	Executive	General Business				DOEIC
Wed,, 3/13	Monthly meeting	FY 2026 Budget Development/prioritization input	Yes	Stokes/ Thompson	Butler, Conner, Dill, Jones, McCurdy, Tuck	DOEIC
	Site tour	(No site tour)				
Wed., 3/27	EM/Stewardship	Continued Discussion on FY 2026 Budget Development /prioritization input		Thompson		DOEIC
			APRIL 2024			
	Executive	General Business				DOEIC
Wed., 4/10	Monthly meeting	Aquatic Ecology Research and Technology Development in East Fork Poplar Creek	Optional	Mathews/ Petrie	Anzellotti, Butler, Jones, McCurdy, Sharpe	DOEIC
TBD	Site tour	On-site tour/Q&A		Mathews/ Petrie		

Date	Event	Topic	Recommendation Required	Presenter	Issue Group	Location
Wed., 4/24		Continued Discussion on Aquatic Ecology Research and Technology Development in East Fork Poplar Creek		Mathews/ Petrie		DOEIC

			MAY 2024			
Wed., 5/1	Executive	General Business				DOEIC
Wed., 5/8	Monthly meeting	TBD				DOEIC
TBD		Educate new members & tour of sites; current members welcome. (half-day)		Petrie/ Williams/ Newberry		DOEIC & sites
Wed., 5/22	EM/Stewardship	TBD				DOEIC
			JUNE 2024			
Wed., 6/5	Executive	General Business				DOEIC
Wed., 6/12	meeting	East Tennessee Technology Park Main Plant Groundwater Remedy Selections	Optional	Petrie/ Scheffler	Bartholomew, Butler, Jones, McCormick, McCurdy, Michaels, Sharpe, Shields, Weigel	DOEIC
TBD	Site tour	On-site tour/Q&A		Petrie/ Scheffler		
Wed., 6/26	, , ,	Continued Discussion on East Tennessee Technology Park Main Plant Groundwater Remedy Selections		Petrie/ Scheffler		DOEIC
			<b>JULY 2024</b>			
Wed., 7/3	Executive	(No meeting)				DOEIC
Wed,, 7/10	Monthly meeting	(No meeting)				
	Site tour	(No site tour)				
Wed., 7/24	EM/Stewardship	(No meeting)				DOEIC

			AUGUST 2024		
Wed., 8/7	Executive	Annual Planning Meeting			DOEIC
TBD	· ·	FY2024 review and planning for FY2025	, ,		TBD
**	Monthly meeting	(No ORSSAB monthly meeting)			
	Site tour	(No site tour)			
Wed., 8/28	EM/Stewardship	(No meeting)			
			SEPTEMBER 2024		
Wed., 9/4	Executive	General Business			DOEIC
	Monthly meeting	TBD			DOEIC
TBD	Site tour	TBD			
Wed., 9/25	EM/Stewardship	TBD			DOEIC

#### Abbreviations/Acronyms List for Environmental Management Projects

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

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

LGWO – Liquid and Gaseous Waste Operations

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

OROP - Oak Ridge Oxide Processing

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

RFI - Request for Information

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, an artificially made, radioactive element that has an atomic number higher than uranium in the periodic table

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

X-10 – Oak Ridge National Laboratory (refers to the original reactor)

Y-12 - Y-12 National Security Complex

ZPR – Zero Power Reactor



#	Date	То	From	Description	DOEIC, Notified board officers of receipt
23	11/1/2023	Petrie, DOE	Young, TDEC	TDEC Comments: RE: Addendum 2 (Exposure Unit Z2-17) to the Fiscal Year 2009 Phased Construction Completion Report for Zone 2 Exposure Units 11, 12, 17, 18, 29, and 38 at East Tennessee Technology Park, Oak Ridge, Tennessee (DOE/OR/01-2415&D2/A2)	DOEIC, Notified board officers of receipt
24	11/1/2023	Petrie, DOE	Young, TDEC	TDEC Approval: Addendum to the Remedial Design Report/Remedial Action Work Plan for the Environmental Management Disposal Facility, Oak Ridge, Tennessee: Early Site Preparation Activities: East Spoils Area (DOE/OR/01-2934&D2/A1)	DOEIC, Notified board officers of receipt
25	11/3/2023	Petrie, DOE	Andrews, EPA	EPA Review of the Erratum Page for the Action Memorandum for the Y-12 Facilities Non-Time-Critical Removal Action Deactivation/Demolition Project, Oak Ridge, Tennessee (DOE/OR/01-2462&D2)	DOEIC, Notified board officers of receipt
26	11/3/2023	Petrie, DOE	Urquhart-Foster, EPA	EPA Approval: the 2023 Remediation Effectiveness Report for the U.S. Department of Energy Oak Ridge Site, Oak Ridge, Tennessee (DOE/OR/01-2938&D2)	DOEIC, Notified board officers of receipt
27	11/7/2023	Petrie, DOE	Dawson, EPA	EPA Comments: Engineering Evaluation/Cost Analysis for North Tributary-8 at the Y-12 National Security Complex Bear Creek Burial Ground, Oak Ridge, Tennessee DOE/OR/01-2957&D1	DOEIC, Notified board officers of receipt
28	11/9/2023	Petrie, DOE	Young, TDEC	Request for Electronic Records (Engineering Drawings) per Federal Facility Agreement Section XXIX to Support State Oversight of the Groundwater Field Demonstration and Design of the Planned Environmental Management Disposal Facility	DOEIC, Notified board officers of receipt



#	Date	То	From	Description	DOEIC, Notified board officers of receipt
29	11/14/2023	Urquhart- Foster, EPA & Young, TDEC	Henry & Petrie, DOE	Transmittal of the Waste Handling Plan for the Demolition of the Alpha- 2 Complex Located at the Y-12 National Security Complex, Oak Ridge, Tennessee (DOE-OR-01- 2877&D1)	DOEIC, Notified board officers of receipt
30	11/15/2023	Petrie, DOE	Dawson, EPA	EPA Comments: Bear Creek Valley Mercury Sources Remedial Site Evaluation Sampling and Analysis Plan, Oak Ridge, Tennessee, dated September 2023 (DOE/OR/01- 2958&D1)	DOEIC, Notified board officers of receipt
31	11/16/2023	Petrie, DOE	Froede, EPA	EPA Comments: Melton Valley/Bethel Valley Exit Pathway Phase 1 Remedial Investigation Completion Report for the U.S. Department of Energy Oak Ridge Site Oak Ridge, Tennessee (DOE/OR/01-2953&D1)	DOEIC, Notified board officers of receipt
32	11/16/2023	Petrie, DOE	Young, TDEC	TDEC Comments: RE: Removal Action Report for the Poplar Creek Mudflat Sediment Time-Critical Removal Action at the East Tennessee Technology Park, Oak Ridge, Tennessee (DOE/OR/01-2952&D1)	DOEIC, Notified board officers of receipt
33	11/16/2023	Petrie, DOE	Andrews, EPA	EPA Comments: Addendum 2 (Exposure Unit Z2-17) to the Fiscal Year 2009 Phased Construction Completion Report for Zone 2 Exposure Units 11, 12, 17, 18, 29, and 38 at East Tennessee Technology Park, Oak Ridge, Tennessee (DOE/OR/01-2415&D2/A2)	DOEIC, Notified board officers of receipt
34	11/16/2023	Sutton, DOE	Amoroso, EPA	EPA Approval: Covenant Deferral Request for the Proposed Title Transfer for all of Exposure Unit Z2- 14 and Portions of Z2-22, Z2-23 and Z2-24 at the East Tennessee Technology Park, Oak Ridge, Tennesse, for Regulatory Concurrence (DOE/OR/01/01-2955)	DOEIC, Notified board officers of receipt



#	Date	То	From	Description	DOEIC, Notified board officers of receipt
35	11/21/2023	Petrie, DOE	Young, TDEC	Re: TDEC Comment Letter for Melton Valley/Bethel Valley Exit Pathway Phase 1 Remedial Investigation Completion Report for the U.S. Department of Energy Oak Ridge Site, Oak Ridge, Tennessee (DOE/OR/01-2953&D1)	DOEIC, Notified board officers of receipt
36	11/22/2023	Petrie, DOE	Andrews, EPA	EPA Comments: Removal Action Report for the Poplar Creek Mudflat Sediment Time Critical Removal Action at the East Tennessee Technology Park, Oak Ridge, Tennessee (DOE/OR/01-2952&D1)	DOEIC, Notified board officers of receipt
37	11/27/2023	Petrie, DOE	Young, TDEC	Addendum for the Implementation Process to the Remedial Design Report/Remedial Action Work Plan for Soils, Sediments, and Dynamic Characterization Strategy for Bethel Valley, Oak Ridge, Tennessee (DOE/OR/01-2378&D5/A5)	DOEIC, Notified board officers of receipt
38	11/27/2023	Urquhart- Foster, EPA & Young, TDEC	Henry & Petrie, DOE	Federal Facility Agreement Milestone Extension Request for Phased Construction Completion Report for the Non-Time-Critical Removal Action Building 9404-18 Demineralizer Facility Mercury-Contaminated Systems Demolition at the Y-12 National Security (DOE/OR/01-2929&D2)	DOEIC, Notified board officers of receipt
39	11/28/2023	Urquhart- Foster, EPA & Young, TDEC	Hardin & Petrie, DOE	Federal Facility Agreement Milestone Extension Request for Record of Decision for Groundwater in the K-31 K-33 Area at the East Tennessee Technology Park, Oak Ridge	DOEIC, Notified board officers of receipt
40	11/3/2023	Petrie, DOE	Sayer, EPA	EPA Approval: Addendum to the Remedial Design Report/Remedial Action Work Plan for the Environmental Management Disposal Facility, Oak Ridge, Tennessee: Early Site Preparation Activities: East Spoils Area (DOE/OR/01-2934&D2/A1)	DOEIC, Notified board officers of receipt



#	Date	То	From	Description	DOEIC, Notified board officers of receipt
41	11/28/2023	Petrie, DOE	Urquhart-Foster, EPA	EPA approval of milestone extension request for PCCR for the Non-Time Critical Removal Action Building 9404-18	DOEIC, Notified board officers of receipt
42	11/28/2023	Petrie, DOE	Dawson, EPA	EPA's review comments on the Implementation Process to the RDR/RAWP Plan for Soils, Sediments, and Dynamic Characterization Strategy for Bethel Valley (DOE/OR/01-2378&D5/A5)	DOEIC, Notified board officers of receipt
43	11/29/2023	Urquhart- Foster, EPA; Young, TDEC	Hardin, Petrie, DOE	FFA Milestone Extension Request for Interim Record of Decision for Groundwater in the Main Plant Area at ETTP (DOE/OR/01-2949&D2)	DOEIC, Notified board officers of receipt
44	11/30/2023	Burchfield, Doty, DOE	Lutz, TDEC	Transmission of TDEC FY24 Environmental Monitoring Plan	DOEIC, Notified board officers of receipt
45	12/4/2023	Petrie, DOE	Young, TDEC	TDEC approval of FFA Milestone Extension Request for PCCR for Non- Time Critical Removal Action Bldg 9404-19 Demineralizer Facility Mercury Contaminated Systems Demo at Y-12 (DOE/OR/01-2929&D2)	DOEIC, Notified board officers of receipt
46	12/4/2023	Urquhart- Foster, EPA; Young, TDEC	Hardin, Petrie, DOE	FFA Milestone Extension Request for Interim Record of Decision for Groundwater in the Main Plant Area at ETTP (DOE/OR/01-2949&D2)	DOEIC, Notified board officers of receipt
47	12/5/2023	Petrie, DOE	Young, TDEC	TDEC Comment Letter for BCV Mercury Sources RSE SAP Oak Ridge, Tennessee (DOE-OR-01-2958&D1)	DOEIC, Notified board officers of receipt
48	12/6/2023	Sutton, DOE	Jones, EPA	EPA comments on CDR for Proposed Title Transfer of Exposure Units at ETTP (DOE/OR/01-2942)	DOEIC, Notified board officers of receipt
49	12/6/2023	Petrie, DOE	Young, TDEC	Addendum 2 to the RAWP WHP for the LGWO at the ORNL Liquid and Gaseous Waste Operations (DOE-OR-01-2830&D1-A2)	DOEIC, Notified board officers of receipt
50	12/7/2023	Petrie, DOE	Urquhart-Foster, EPA	EPA status regarding comments on the 2023 FYR D1 (DOE-OR-01- 2947&D1)	DOEIC, Notified board officers of receipt



#	Date	То	From	Description	DOEIC, Notified board officers of receipt
51	12/11/2023	Sutton, DOE	Sanders, TDEC	RE FY2024-FY2028 TDEC FFA Grant DE- EM0005291	DOEIC, Notified board officers of receipt
52	12/11/2023	Petrie, DOE	Urquhart-Foster, EPA	EPA approval of K-31 K-33 Milestone Extension Request ID 11727 with attachment	DOEIC, Notified board officers of receipt
53	12/11/2023	Petrie, DOE	Urquhart-Foster, EPA	EPA approval of Main Plant Area Groundwater Milestone Extension Request at ETTP (DOE/OR/01- 2949&D2 IROD D2)	DOEIC, Notified board officers of receipt
54	12/12/2023	Petrie, DOE	Young, TDEC	TDEC Approval Letter for the FFA Milestone Extension Request for ROD for Groundwater in the K-31 K-33 Area at the ETTP (DOE-OR-01- 2950&D2) and RAR	DOEIC, Notified board officers of receipt
55	12/20/2023	Urquhart- Foster, EPA; Young, TDEC	Henry, Petrie, DOE	DOE Response to Comments on the Bear Creek Valley Mercury Sources Remedial Site Evaluation Sampling DOE/OR/01-2958&D1	DOEIC, Notified board officers of receipt
56	12/19/2023	Petrie, DOE	Young, TDEC	TDEC Approval Letter for the FFA Milestone Extension Request for IROD for Groundwater in the MPA at the ETTP (DOEOR01-2949&D2-IROD D2, RAWP D1, and RAR D1)	DOEIC, Notified board officers of receipt
57	12/19/2023	Petrie, DOE	Young, TDEC	TDEC Comment Letter Addendum 2 for the Implementation Process to the UEFPC Soils RAWP, Oak Ridge, Tennessee (DOE-OR-01-2423&D2-A2)	DOEIC, Notified board officers of receipt
58	12/20/2023	Urquhart- Foster, EPA; Young, TDEC	Petrie, DOE	Update to the Administrative Record for the ROD for CERCLA Waste Disposal at EMDF (DOE/OR/01-2794&D2/R1)	DOEIC, Notified board officers of receipt
59	12/26/2023	Petrie, DOE	Andrews, EPA	EPA Comments on Addendum 2 for the Implementation Process to the Upper East Fork Poplar Creek Soils Remedial Action Work Plan, Oak Ridge, Tennessee (DOE/OR/01- 2423&D2/A2)	DOEIC, Notified board officers of receipt
60	1/2/2024	Petrie, DOE	Dawson, EPA	EPA Comments on Addendum 2 to the Remedial Action Work Plan/Waste Handling Plan for Liquid and Gaseous Waste Operations at ORNL, dated July 2023 (DOE/OR/01- 2830&D1/A2)	DOEIC, Notified board officers of receipt



#	Date	То	From	Description	DOEIC, Notified board officers of receipt
61	1/3/2024	Petrie, DOE	Young, TDEC	TDEC Comments: Re: Federal Facility Agreement Milestone Extension Request for the Y-12 National Security Complex North Tributary-8 Engineering Evaluation (EE)/Cost Analysis (CA) (DOE/OR/01-2957&D2) and Action Memorandum (AM)	DOEIC, Notified board officers of receipt
62	1/3/2024	Petrie, DOE	Urquhart-Foster, EPA	EPA approval of Y-12 NT-8 Milestone Extension Request ID 11788	DOEIC, Notified board officers of receipt
63	1/11/2024	Urquhart- Foster, EPA; Young, TDEC	Daffron & Petrie, DOE	Federal Facility Agreement Milestone Extension Request for the 7025 Area Phased Construction Completion Report	DOEIC, Notified board officers of receipt
64	1/11/2024	Petrie, DOE	Dawson, EPA	EPA Comments: Responses to EPA Comments on the Addendum for the Implementation Process to the Remedial Design Report/Remedial Action Work (RDR/RAWP) Plan for Soils, Sediments, and Dynamic Characterization Strategy for Bethel Valley, Oak Ridge, Tennessee, dated August 2023 (DOE/OR/01- 2378&D5/A5)	DOEIC, Notified board officers of receipt
65	1/23/2024	Petrie, DOE	Young, TDEC	TDEC Comments: Re: Federal Facility Agreement Milestone Extension Request for the 7025 Area Phased Construction Completion Report	DOEIC, Notified board officers of receipt
66	1/23/2024	Distribution	Mullis, DOE	Transmittal of the Semiannual Status Report in Accordance with the Memorandum of Agreement for Decommissioning and Demolition of the K-25 Site and Interpretation of the ETTP	DOEIC, Notified board officers of receipt
67	1/23/2024	Petrie, DOE	Urquhart-Foster, EPA	EPA Comments: Federal Facility Agreement Milestone Extension Request for the 7025 Area Phased Construction Completion Report (PCCR)	DOEIC, Notified board officers of receipt
68	1/23/2024	Urquhart- Foster, EPA; Young, TDEC	Henry, Petrie, DOE	Submittal of the Explanation of Significant Differences for the Record of Decision for the Disposal of ORR CERCLA Waste: Haul Road Reroute (DOE/OR/01-2973&D1)	DOEIC, Notified board officers of receipt



#	Date	То	From	Description	DOEIC, Notified board officers of receipt
69	1/23/2024	Petrie, DOE	Young, TDEC	TDEC Comments: Re: Federal Facility Agreement Milestone Extension Request for the 7025 Area Phased Construction Completion Report	DOEIC, Notified board officers of receipt
70	1/24/2024	Urquhart- Foster, EPA; Young, TDEC	Daffron & Petrie, DOE	Transmittal of Addendum to the Remedial Design Report/Remedial Action Work Plan for the Decontamination and Decommissioning of Non-Reactor Facilities in Bethel Valley at ORNL: Demolition of Building 2523 and Annex 2523A (DOE/OR/01-2428&D2/A14)	DOEIC, Notified board officers of receipt
71	1/25/2024	Urquhart- Foster, EPA; Young, TDEC	Daffron & Petrie, DOE	Transmittal of the Addendum to the Remedial Action Work Plan/Waste Handling Plan for Liquid and Gaseous Waste Operations at ORNL: Facility and Equipment Deactivation/Small-Scale Demolition (DOE/OR/01-2830&D1/A3)	DOEIC, Notified board officers of receipt
72	1/25/2024	Urquhart- Foster, EPA; Young, TDEC	Henry, Petrie, DOE	Addition of Facilities the Action Memorandum for the Y-12 Facilities Non-Time-Critical Removal Action Deactivation/Demolition Project (DOE/OR/01-2462&D2)	DOEIC, Notified board officers of receipt
73		Urquhart- Foster, EPA; Young, TDEC	Henry, Petrie, DOE	Federal Facility Agreement Milestone Extension Request for the Phased Construction Completion Report for the Non-Time Critical Removal Action Building 9404-18 Demineralizer Facility Mercury-Contaminated Systems Demolition at Y-12 (DOE/OR/01-2929&D2)	DOEIC, Notified board officers of receipt



#	Date	То	From	Description	DOEIC, Notified board officers of receipt
74	2/6/2024	Petrie, DOE	Young, TDEC	Re: Federal Facility Agreement Milestone Extension Request for Phased Construction Completion Report for the Non-Time- Critical Removal Action Building 9404- 18 Demineralizer Facility Mercury- Contaminated Systems Demolition at the Y-12 National Security Complex Oak Ridge, Tennessee (DOE/OR/01- 2929&D2)	DOEIC, Notified board officers of receipt
75	2/6/2024	Urquhart- Foster, EPA; Young, TDEC	Daffron & Petrie, DOE	Transmittal of Addendum to the Remedial Design Report/Remedial Action Work Plan for the Decontamination and Decommissioning of Non-Reactor Facilities in Bethel Valley at ORNL: Pre-Demolition and Demolition of Building 3544, Process Waste Treatment Plant, and Adjacent Facilities, Buildings 3518 and 3594 (DOE/OR/01-2428&D2/A13)	DOEIC, Notified board officers of receipt

### **Travel Opportunities**

Meeting/Event	Dates	Location	Cost	Additional Info			
FY 2023							
EPA National Brownfields Conference Requests: Michaels	Aug. 8-11	Detroit, MI	\$200	https://brownfields2023.org/			
	FY	2024					
Waste Management Symposium Requests: Bartholomew, Jones, Bhuiyan	\$1,780	www.wmsym.org					
National Environmental Justice Conference & Training Requests:	April 16-18	Washington, D.C.	NA	http://thenejc.org			
2024 Spring Chairs Meeting Board officers preferred Requests: Jones	April 30-May 2	Chilicothe, OH	NA				
RadWaste Summit Requests: Jones, Michaels	June 3-5	Louisville, KY	\$1,645	https://www.exchangemonitor.com/g o/radwaste-summit-2024/			
DOE National Cleanup Workshop Requests: Anzelotti*, Dill*	Sept. 16-18	Arlingon, VA	TBD	www.cleanupworkshop.com			
2024 Fall Chairs Meeting Board officers preferred Requests: NA	September TBD	Oak Ridge	NA				

## ORSSAB 2024 Member Biographies

Atilio Anzellotti is a senior scientist with PETNET Solutions and a resident of Oak Ridge. He would bring a unique perspective to the board as he has dual citizenship (US and Venezuela). His B.S. and M.S. degrees in chemistry were received in Venezuela from the University of Los Andes and the Venezuelan Institute for Scientific Research, respectively. He received a Ph.D. in chemistry from Virginia Commonwealth University. Mr. Anzelotti is active in the community and is a member of the American Chemical Society and the Oak Ridge Environmental Quality Board. He is interested in environmental and public health issues.

Candace Atkinson is the lead 911 dispatcher for the Anderson County Sheriff's Office. She earned a bachelor of science degree in Occupational Safety and Health from Eastern Kentucky University holds a variety of health-related certifications related to her career in law enforcement and emergency services, including CPR and safety communications. She also holds various certifications from the Federal Emergency Management Agency (FEMA). She is a member of the Omega Nu Lambda National Honor Society and the Southern States Police Benevolent Association. Candace is interested in environmental, civic and public health issues. She lives in Oak Ridge.

**Kris Bartholomew** is the owner of Turn Key Plumbing and Construction, a small family-owned business. A high school graduate with some college, Kris has received licensures related to his trade. Those licenses include general contractor and subsurface sewage installer. He is interested in environmental and public health issues. He lives in Lenoir City.

Raiyan Bhuiyan is earned a bachelor of science degree in Nuclear Energy Engineering Technology from Thomas Edison State University, where he was a recipient of the Nuclear Regulatory Commission Scholarship. He was also a graduate of the Naval Power School during his time serving in the U.S. Navy and has received certifications in CPR and as an IBM Data Science Professional. Raiyan is interested in environmental and workforce issues. He lives in Oak Ridge.

Mary Butler is a former staff pharmacist with Aurora Pharmacy. She received a bachelor of science in pharmacy from the University of Wisconsin. She retired to Rockwood in 2020 and is eager to engage in the community here as she was previously active in several organizations in her native Wisconsin. Mary is interested in civic and educational issues.

Harold Conner, Jr., is a senior engineering advisor with Strata-G. In this role, he focuses on supporting community outreach, university partnerships, student internships and mentoring. Harold is a former K-25 plant manager, serving from 1968-1996. He has bachelor of science and master of science degrees in Chemical Engineering from the University of Tennessee, Knoxville (UT), where he was the program's first African American graduate in 1968. He received his Ph.D. in Industrial and Systems Engineering from the University of Alabama at Huntsville. He is active in many community organizations including: the UT Knoxville Alumni board; the UT Tickle College of Engineering board; the STEM Scouts board; the American Museum of Science and Energy board; and Strata-G's board. He is a fellow of the American Institute of Chemical Engineers and the American Society for Engineering Management. He is also a lifetime member of the National Society of Black Engineers and the National Organization of Black

Chemists and Chemical Engineers. Harold lives in Knoxville and is interested in educational and minority issues.

Paul Dill retired in 2018 as a project manager with Project Enhancement Corp. He received a B.S. in industrial engineering/technology management from Roger Williams University and an M.A. in psychology from Ashford University. Mr. Dill also earned a Master Project Manager certification from the American Academy of Project Management. He is currently an associate member of the American Psychological Association and a member of the Society for Personality and Social Psychology. Mr. Dill lives in Oliver Springs, which includes portions of Anderson, Roane, and Morgan counties. He is interested in environmental and public health issues.

**Rosario Gonzalez** is a returning board member who served from 2016 through 2018. She recently retired as cafeteria manager of St. Mary's Catholic Church Cafeteria in Oak Ridge. She completed her secondary education in Mexico and received her GED from Pellissippi State. She lives in Oak Ridge and is interested in environmental and minority issues.

Amy Jones is the agency manager for Steve Pyatt Insurance and a licensed agent for Madison Insurance Group, serving as lead agent for their Georgia office and as senior benefits coordinator for their Medicare division. She is also a real estate agent at Stephenson Realty & Auction. She owned her own business, Double J Enterprises of TN, in Rocky Top, Tennessee, for more than 20 years. Amy is active in a variety of community organizations, including the Anderson County Chamber of Commerce, the Anderson County Headstart Policy Council, the Women's Ministry Banquet at Main Street Baptist, the Anderson County Republican Party, the Tennessee Republican Party, the Order of Amaranth, and the Order of the Eastern Star. She founded Christmas for Rocky Top Kids in 2018. She lives in Bricveille and is interested environmental, economic, and county government issues.

**Noah Keebler** is a nuclear electronics technician with Ametek, which is a manufacturer of electronic instruments and electromechanical devices. Prior to that he was a radiological instrumentation specialist with Perma-fix Environmental Services. Mr. Keebler received an A.S. in Electrical Engineering from Roane State Community College. He holds a certification in Instrumentation from Ludlum Measurements and several other work-related certifications. Noah has Occupational Safety and Health Administration training, electrical safety experience and radiation worker training and is a member of the East Tennessee Chapter of the Health Physics Society. He has an interest in environmental issues. He lives in Knoxville.

**Michael (Mike) Mark** is a former first responder and hazmat professional. He earned a high school diploma and has many certifications related to his career. He lives in Harriman and is interested in environmental and economic development issues.

**Thomas McCormick** is the city manager for the Town of Oliver Springs, which includes portions of Anderson, Roane, and Morgan counties. He received a B.S. in political science from Middle Tennessee State University. He also has numerous certifications from the State of Tennessee, including as a water and wastewater treatment plant operator. He lives in Oliver Springs and is interested in city/county government and environmental issues.

Ann (Harriett) McCurdy retired in 2014 after more than 40 years as a teacher for middle- and high-school students both in the United States and abroad, with a focus on the sciences. Most recently she served as a teacher of science and biology for grades 6-10 at Yangon Academy in Yangon, Myanmar. Prior to that, she taught a variety of science courses and environmental studies courses in China, Morocco, Kuwait, and Ecuador. Harriett received an M.A. in teaching biology and her teaching certificate

from Washington University and a B.A. in biology from Earlham College. She is president of the Oak Ridge League of Women Voters and a member of Tennessee Citizens for Wilderness Planning, which is dedicated to achieving and perpetuating protection of natural lands and waters by means of public ownership, legislation, or cooperation of the private sector with a focus on the Cumberland and Appalachian regions of Tennessee. Harriett lives in Oak Ridge and is interested in educational and environmental issues.

Christine Michaels is president of the Oak Ridge Chamber of Commerce. She received a bachelor of science in Public Relations from Empire State College and has an Economic Gardening Certification for entrepreneurial economic development and an Institute for Organization Management certification from the U.S. Chamber of Commerce. She is a member of several organizations including: the Anderson County Economic Development Board, Adventure Anderson County (tourism board), Altrusa Foundation Board, Flatwater Tales Storytelling Festival Committee, and the East Tennessee Economic Development Board. She is a Paul Harris Fellow with the Rotary Club. Christine lives in Oak Ridge and is interested in economic development and business issues.

**Charles Moore** is a source house technician with Mirion Technologies and is pursuing a degree in chemistry from Roane State Community College. He is interested in economic development and environmental issues. He lives in Knoxville.

**Tonya Shannon** works in accounts payable in the finance department for Morgan County and serves as a funeral director through Service Corp. International. She lives in Wartburg and is interested in public health and civic issues.

Michael Sharpe is a SharePoint administrator and performs other technology- and web-based tasks for Oak Ridge Associated Universities, which manages the Oak Ridge Institute for Science and Education for DOE. It provides science, education, workforce development, and health services that include some OREM areas such as decontamination verifications to support cleanup. He received a B.S. in business administration from Tusculum University and an A.S. in computer programming from ITT Technical Institute. He is interested in civic and environmental issues and lives in Lenoir City.

**Rachel Stewart** is a recent UT Knoxville graduate with a bachelor of arts in College Scholars with an emphasis on Environmental Justice and Radioactive Waste Management. She interned with the Nuclear Threat Initiative in Washington, DC, during the summer of 2023. Rachel lives in Knoxville and is interested in public health and minority issues.

**Thomas Tuck** is a banking executive with TNBank. He served as president of the bank since 1995 and in March of 2020 transitioned to part-time employment as part of a leadership transition/retirement. He received a B.S. in business and marketing from the University of Tennessee and is a Certified Banker through the School of Banking of the South. He is a member of boards of directors for local organizations including the Oak Ridge Chamber of Commerce, Oak Ridge Heritage & Preservation Association, and the East Tennessee Economic Council. He is a member of the Y-12 Community Relations Council. He is interested in civic issues and economic development. He lives in Knoxville.