



# PORTSMOUTH EM SITE SPECIFIC ADVISORY BOARD

•OSU Endeavor Center• 1862 Shyville Road • Piketon, Ohio 45661 • (740) 289-5249 •

## Proposed Agenda for the November 3, 2022, Board Meeting

### Chair

Jody Crabtree

### Co-Vice Chair

Herman Potter

### Board Members

Dr. Todd Burkitt

Bryan Davis

Amy Hawk

Turman Helton

Wayne McLaughlin

Matt Setters

Beth Workman

**6:00 pm**

Call to order, introductions

Review of agenda

**DDFO Comments**

**--15 minutes**

**Federal Coordinator Comments**

**--10 minutes**

**Liaison Comments**

**-- 5 minutes**

**Administrative Issues**

- **Fall EM SSAB National Chairs Meeting Report**  
**Jody Crabtree and Herman Potter**

**--5 minutes**

- **Adoption of FY 2022-2023 Work Plan**

**--10 minutes**

**Subcommittee Updates**

**--5 minutes**

### Deputy Designated

### Federal Official

Jeremy Davis

**Public Comments**

**--15 minutes**

**Final Comments from the Board**

**--15 minutes**

### DOE Federal Coordinator

Greg Simonton

**Adjourn**

### *Support Services*

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## PORTSMOUTH EM SITE SPECIFIC ADVISORY BOARD

MINUTES OF THE THURSDAY, NOVEMBER 3, 2022, SSAB MEETING • 6:00 P.M.

**Location:** The Ohio State University Endeavor Center, Room 160, Piketon, Ohio

**Site Specific Advisory Board (SSAB) Members Present:** Chair, Jody Crabtree; Vice-Chair, Herman Potter; Amy Hawk, Dr. Todd Burkitt, Bryan Davis, Turman Helton, Wayne Mclaughlin

**SSAB Members Absent:** Beth Workman, Matt Setters

**U.S. Department of Energy (DOE) and Contractors:** Jeremy Davis, Greg Simonton, DOE; Charles Love, ETAS; Jack Williams, Shawn Jordan, Fluor-BWXT Portsmouth (FBP); Julie Galloway, Cindy Lewis, EHI Consultants (EHI)

**Liaisons:** Sean Kubera, Ohio Department of Health (ODH); Grace Stutler, Stephen Weiler, Tom Schneider, Ohio Environmental Protection Agency (EPA)

**Facilitator:** Eric Roberts, EHI

**Public:** Pat Marida, Sierra Club; Diana Cahall, Lee Blackburn

Approved by Jody Crabtree, Board Chair

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Jody Crabtree

**Call to Order:**

**Crabtree:** I would like to call the meeting to order.

**Roberts:** I would like to welcome everyone, and I will be facilitating the meeting. There will be a public comment period after the presentations. The board should stay within its defined scope and follow the meeting ground rules adopted. This is our first in-person meeting in about 20 months.

**November Agenda:**

**Roberts:** Are there any changes to the agenda that we need to make? Seeing none, Agenda approved?

**Minutes:**

**Roberts:** Under tab three we have minutes from our June meeting, we have a window on when we need to get these minutes signed and approved and placed on the website. From June until now that time has lapse so we are going to have Jeremy and Jody sign off on this. We only have one action we need to vote on tonight and that is the work plan for FY 22-23.

**DDFO comments provided by Jeremy Davis, Deputy Designated Federal Official:**

- **Portsmouth Integrated Projects Status**
- **Integrated Project Portfolio Success**
- **Ports D&D – X-326 Process Building**
- **Ports D&D X-326 Process Building**
- **OSWDF Status**
- **Contaminated Plume Excavation**
- **Demolition Debris: Load-out to Placement**
- **2021 ASER**
- **X-326 Project Monitoring X-326**
- **X-326 Co-Located Air Monitoring Summary**
- **Science Alliance**
- **Questions?**

*A copy of the DDFO presentation is available on the SSAB website  
([www.ports-ssab.energy.gov](http://www.ports-ssab.energy.gov))*

| <b>Question/Comment:</b>  | <b>Answer:</b>  |
|---|---|
| <b>Burkitt:</b> Who sets the standard on the waste cells, putting the dirt in and compacting? | <b>J. Davis:</b> There is an engineer of record that states what the design is for those cells. And that design sets forth the standard for compaction. So, while the placement is being done, we have a quality control contractor who's |

|   |  |
|---|--|
| <p>When everything is completely finished, will they still be monitoring?</p> <p>I know this is more of a SODI question but are company's activity looking at the land?</p> | <p>independent of the actual construction crew, and they go out during the construction and take compaction samples while we're placing the material into the On-Site Disposal Facility (OSDF).</p> <p>Yes. DOE legacy management long term stewardship program will monitor in perpetuity outflow of water that comes off site as well as air. That will all be in the closure plans that are put in place when the demolition is done.</p> <p>They have been reaccepting a reindustrialization hydra powered generators. That is the only one I know of right now.</p> <p><b>Simonton:</b> We do have SODI scheduled to come in and update us at a subcommittee meeting, I do not remember which month it is. They can give more detail on that.</p> |
| <p><b>Helton:</b> Where are we on Parcel two?</p>   | <p><b>J. Davis:</b> We have a ceremony to transfer parcel two planned for November 21st. We are still awaiting the final packet for that approval from headquarters.</p> <p><b>Simonton:</b> DOE will be transferring 226 acres.</p>   |

**Federal Project Coordinator comments provided by Greg Simonton, Federal Project Coordinator:**

**Simonton:** I am happy to say, we have 15 or 16 teams already signed up for the Spring Science Bowl in March. Waverly is doing the Annual Site Environmental Report this year. Both of those activities are starting back up and that's a good thing. We will talk about more of the property transfer in a future subcommittee meeting as well.

**Liaison comments:**

**Kubera:** Nothing at this time.

**Schneider:** I would like to introduce Grace Stutler who is replacing Stephen Weiler.

**Helton:** Is Environmental Protection Agency (EPA) permanently on site?

**Schneider:** We do not have a permanent present on site, but we do have someone here every week.

**Weiler:** I am here sometimes every week sometimes every other week and Grace will be doing the same.

**Administrative Issues:**

**EM SSAB Fall Chairs Meeting:**

**Crabtree:** It was really interesting, my first time in New Mexico. The cleanup out there is a lot more complicated than our site. Our site transfers to a new contractor next August.

**Potter:** They covered a little bit about everything, provided a lot of grants that can be utilized in the reindustrialization process. We are talking about a lot of money. And I realized there was a lot of opportunity. There is a lot of similarities between the sites. It is kind of interesting to hear about.

| <b>Question/Comment:</b>                            | <b>Answer:</b>   |
|---|--|
| <b>Burkitt:</b> Were you able to visit the schools? | <p><b>Crabtree:</b> No, we were only there for three days and that was not part of the event.</p> <p><b>Potter:</b> I would say that they have a very large focus on indigenous people, maybe not the schools, but there were some ceremonies, there were some museums that we went to. There was a lot of things like that to show how they interface with the site, they put a lot of effort into doing that. It seemed to be working pretty well for them. I thought that was a real positive aspect.</p> <p><b>Roberts:</b> I know that the site lead from Los Alamos, Jeremy's counterpart, did mention that they were very interested in making sure that their involvement and programing focused on some of the rural areas.</p> <p>The Chair's meeting order will be DC in Mid-March, Oak Ridge in Fall 2023, Portsmouth in April 2024.</p> |

**Work Plan 2022-2023:**

**Roberts:** If you look at pages four and five, this is where Jeremy is going to ask you for your thoughts, opinions, advice, and guidance on certain topics. So, we've kind of

set the timeline. You will be given a presentation or series of presentations to prepare you for a question Jeremy is going to ask for your input. And then we will examine the program. It's kind of a little more of a structured affair. We have three of these recommendations that we are going to look for this year. The first, which is due in January, we will have the meeting this month deals with plans for site infrastructure and redevelopment.

| <b>Question/Comment:</b>  | <b>Answer:</b>  |
|---|---|
| <p><b>Potter:</b> As far as looking a planning issues are we looking at it with the specific that we don't necessary have any specific issue in mind or do we have to have somebody in mind to come do the work?<br/>           Industrialization such as the hydrogen plant. Or can we just focus on something in general.</p> | <p><b>Simonton:</b><br/>           There was some work that was done in the past that would probably answer some of the questions. So, you don't have to start from zero, there was a lot of interaction as well about seven years ago, an integrated energy development project and there were some in the structure needs identified to support something like that. That would be a good place to start a dialog.</p> <p><b>J. Davis:</b> We can let you know what is there.</p> |
| <p><b>Helton:</b> What does ASER stand for?</p>   | <p><b>J. Davis:</b> Annual Site Environmental Report</p>  |

**Roberts:** Do we have a motion to approve the 2022-2023 work plan?

**Burkitt:** I would like to make a motion to approve.

**Mclaughlin:** I will second it.

**Roberts:** Motion to approve the work plan is 7 accept, 0 Opposed. Motion to accept the 2022-2023 Work Plan passes.

**HM/EM “Project Execution” Subcommittee:**

**B. Davis:** Jeremy gave us a riveting presentation on the Project Update Overview, which was very good to get that update and find out where everything's at. And it's amazing what's happened since we had this. There was quite a bit covered I think it was 17 items on that presentation. And then afterwards after going through all these and the breakdown from buildings to everything as far as how the process being done, we were given the opportunity to ask a lot of questions. There were several questions that were asked, the ones in the room that had the information responded, and there were some really good questions that came out of that, that there was a good back and forth Q&A. I was I was impressed with the content of the answers and left there feeling even more educated as far as what's going on at the site.

***Mclaughlin:*** I'll just kind of talk about things in general. I was impressed a lot with the magnitude of this effort and complexity of it and with potential economic impact. I knew something about that. I was impressed when I learned a lot more in the meeting about how big the effort is and how complex it is, therefore, how much technology to quantify the success. What I mean by magnitude with an enormous amount of this work has already been done decommissioning and demolition and disposal, which is important. That's driven by support for safety. And it's all our track record so far. Excellent. We felt really good about that complexity, not only in the demolition work, but assuring both short term and long-term environmental protection. To protect the environment, both in the short term and in the longer term, the longer term, and perhaps a little bit offshore. We're not only protecting the environment going forward, the environmental restoration and the long-term economic impact of that. A lot of the job now we got contractors doing work over there, really good business development in the long term both in our region and so much of the subcommittee meeting was kind of like my first understanding of the overall scope of this effort, and I was enormously impressed by the presentation. And I definitely resolved that and feel good about where we are.

***Helton:*** I know three of the four guys there and I feel very comfortable with that decision. They're fine, fine men. I appreciate them.

#### **Future Land Use "Project Completion" Subcommittee:**

***Simonton:*** It was pretty basic information.

***Roberts:*** Greg walked us through the kind of the regulatory process, the property transfer process and the checks and the regulatory ups, the partnerships here and how this works. It's a lengthy, convoluted process.

***Potter:*** I think that is a very positive approach.

***B. Davis:*** Yeah, I have a question, regarding the re-industrialization, what if anything, is there any communication with JobsOhio on the parcels that are being taken out of this control given to SODI? How involved are they at this point? And also, with the Appalachian Development Grants just been announced, 500 million. Is Pike County looking at that at all as far as for infrastructure, possibly for those sites are being discussed at all?

***Potter:*** I think there has been, I can't give you any of the details, I don't know the details. But they have been discussing.

#### **Public Comments:**

**Written public comments were submitted. The comments as provided can be found at the end of the minutes:**

**Marida:** Read her attached comments.

**Cahall:** I'm really glad to see everybody. It's amazing how long it is, and it has been a while. Good to see you all, and new members welcome to the board.

I have been hounding people about this report for about the last two and a half years. It deals with the recycled uranium, which is the spent nuclear fuel, the fuel rods that came out of the production reactors for plutonium, for the nuclear weapons program. Quite a bit of it was brought here and run through the plant. This is a report not from some pot wide eyed nut, but from the DOE itself, and I'm quoting the portside as received and dealt with recycled uranium and its legacy from start up through current modern-day operations sources and amounts of uranium received or uranium hexafluoride from being manufactured at the Paducah Gaseous Diffusion Plant or the Oak Ridge Gaseous Diffusion Plant from using recycled uranium trioxide. Uranium hexafluoride C supplied from other miscellaneous foreign and domestic sources five metric tons oxides and other non-uranium hexafluoride forms containing transuranic and products from miscellaneous, foreign, and domestic sources for conversion to uranium and foreign strength. And that's 19 tons. That's why I am talking to you. A total of 4.6 metric tons that three rounds of non-uranium hexafluoride may also have been utilized for development. In conclusion, and this is a summary of a 200-page report in conclusion activities during the 1990's associated with the suspension of energy production and produced 1.4 metric tons of recycled uranium containing low levels of transuranic into the X326 cascade under the HEU reporting program. That was introduced during this program, and those transuranic will remain until the process equipment is removed, which has been done. When X326 came down the products were removed. But it's hard to imagine that these increases in transuranic is in the readings at the Zion's board or middle school and other places around in the community are totally unrelated to that being torn down. It makes sense to me that some of those transuranic and technicians went into the air, the soil, and the water. And DOE claims that these amounts are insignificant. Well, how do you define insignificant? Do they have health effects? If you're a gambler you probably aren't not going to get bit by one. But if you do, what happens to you? I think that this taking down the other project buildings that reprocessed this product should be that with some sensitivity to the people who are asking why were my children sick? What are we being exposed to? Have we heard anything about DOE's reports that they were working on? Eric, is it coming out so? First of next year, get that to us please. This report is titled Recycled uranium mass balance project Portsmouth, Ohio slightly forward and if anyone wants a copy, I'm certain that Julie will make you one. Thank you and the date July 19th, 2000.

**Blackburn:** Good evening. My name is Lee Blackburn, former board member. I'm glad to finally see that there's an in-person board meeting, as a member of the public, I've been discouraged by the fact that there had been one board meeting the last year and a half, and that was because the operating procedures requires that the election, the chair, and vice chair occur once a year. I'm also happy to hear that you're going to have a meeting next week, but it brings up an issue of virtual



meetings. You know, I when I sat on the board, I lived in Jackson County, I now live up toward Columbus in Licking County. It's a 100-mile drive for me to come down here. And I'm very much interested in what's going on at this site. It would be great for me to be able to sit in front of my computer and watch the board meeting rather than drive 100 miles to come down here. And it's very possible for you to do both in-person as well as virtual. So that really should be done. And I hope these board meetings continue. To what Diana had to say about the transuranic and the X-326, my guess is that in addition to being in the air and water, it's also in the onsite waste disposal facility. When they took that building down, they dismantled it, shipped it over to the on-site waste disposal facility and dumped it in. So, it probably contains transuranic, someday someone will have to deal with it. So, in conclusion, I just want to see these meetings continue. When I sat on the board it was monthly meetings not once every year and a half. So please continue and let the public know what is going on here.

**Final Comments from the board:**

None

***Action Items:***

- None at this time.

Attachement 1: Patricia Marida comments

Attachement 2: Diana Cahall comments

Comment from a member of the public to the Site Specific Advisory Board  
U.S. Dept of Energy, Portsmouth Nuclear Site  
11-3-22

My name is Patricia Marida and I have been following issues at the Portsmouth Nuclear Site since 1981. When it was called the Portsmouth Nuclear Site. Now it is just the Portsmouth Site. Perhaps the Dept. of Energy does not want to emphasize the word "nuclear".

I am a pharmacist by profession, a health professional, so I understand the effects that ionizing radiation has on the human body and other living things. And folks, it is not pretty. Radioactivity is a mini atomic explosion, and if it is inside your body it will stay there and continue to kill and mutate your cells. This is why it causes cancer, but it also can affect all the organs of your body, which can cause heart trouble, high blood pressure, and other more "ordinary" problems that are not traceable to the radioactive source.

This radioactivity will kill not only some supposed enemies when a nuclear bomb is dropped on their city, but it will also kill the people who are mining, milling and enriching uranium, those doing the fuel fabrication for reactors, and those attempting to deal with the radioactive waste that will be around for hundreds of thousands of years, and the radioactivity that has contaminated their towns and fields and made them ill. Wasserman and Solomon speak of this in their book, "Killing Our Own."

I'd like to call the Board's attention to Duane Pohlman's WKRC Cincinnati TV series about offsite contamination in Piketon. Tonight, his program is going to be interviewing Chic Lawson and other workers on their illnesses. I have a list of 17 of Pohlman's past segments on Portsmouth on this paper.

To the members of the SSAB I will quote the words of the famous journalist I.F. Stone. He told all young reporters that the most important thing they need to remember is that "*Governments Lie*". But that there was one more thing they needed to remember, "*All Governments Lie*". A movie was made with that title.

I am putting this into writing so that whoever is taking the minutes will have a copy of what is said to refer to. In the past the minutes have contained some garbled words from me. Now I trust that the minutes will not be any more garbled than what is on this paper.

**Here is a list of 17 of Duane Pohlman's Video clips about Portsmouth aired on WKRC:**

- **10-27-22: [Congressman demands answers to questions raised in Local 12's 'Fallout' investigation.](#)** Pohlman reviews clips from his series about contamination at the site. Interviews Ryan about the letter Ryan has written DOE asking for answers.
- **10-20-22 [Sen. Manchin joins Rep. Ryan in Southern Ohio following Local 12 fallout investigation.](#)** Tim Ryan and Manchin visit PORTS to support a new middle school. Senator Sherrod Brown [also is supporting the etT011.](#)
- **7-29-22 [Local dads who lost children to cancer react to Local 12 fallout investigation](#)** Pohlman revisits Zach Farmer's and Kate Smith's fathers.
- **5-24-22 PART 3. FALLOUT FROM RUSSIA? [Rep. Ryan demands answers from U.S. Department of Energy following Local 12 Investigation](#)** Ryan met with Pike County leaders and DOE about Pu in Russian shipments to PORTS. Duane comers Ike White who refuses to answer if Pu was brought to PORTS. Docs (from Livermore inspection) show transuranics present at PORTS. Jerry Miller (commissioner) and Brewster speak. Ryan asking DOE to release all information on this. Congressional investigation if no response to Ryan from DOE?
- **5-17-22 PART 2-FALLOUT FROM RUSSIA? ["Local 12 Investigatfon tracks down sourt of Russian radioactive shipments to Ohio"](#)**
- **5-5-22 PART I -FALLOUT FROM RUSSIA? ["Russian nuclear warheads bought, processed and material shi d tg Southern Ohio"](#)**
- **7-26-21 [Local 12 Investigates fallout: A connection between demolition and contamination](#)**

Walburn, Lamerson, Ketterer, Manuta

- **7-12-21: [What's in the Air? Family buys air monitor to solve where radioactivity is coming from.](#)** Josh and Elizabeth Lamerson, who live just a half-mile from PORTS, blame their neighbor for contaminating the community.
- **7-7-21 (5:35 minutes): [Government says area plant is safe; Tri-State mother uncovers something different](#)**
- **2-18-21 (2:39 minutes): [Semis hauling millions of radioactive loads across the country.](#)** US EPA shows there are approximately three million shipments of radioactive material each year in the US, with most traveling in trucks on our highways.
- **2-4-21: [Local 12 Investigates: Nuclear fallout- Is there a danger on our doorstep?](#)** 5:16 minutes [In a federal class-action lawsuit filed in September 2020,](#) former employees, families and neighbors claim PORTS is a "...negligent, reckless, and criminal operation..." that has "created countless 'nuclear incidents'" and caused "sickness, disease... cancers...[and] death..." [Amended Lawsuit - Ports](#) by [kbarrier214](#) on Scribd and [Northern Arizona University Report - ZahnLCorner - Ports](#) by [kbarrier214](#) on Scribd.
- **1-25-21: Spotlight on America: [Scientists concerned with radioactive fallout from America's nuclear plants](#)** 3:03 minutes Identical to the one below except this has a station introduction.
- **1-22-21 Spotlight on America: [Local 12 Investigates cancer connection to Cold War plants](#)** 3:22 minutes Zach Farmer, Kate Smith, Matt Brewster, Middle School, Air quality monitor map, DOE no radioactivity above naturally occurring, Mentions Oak Ridge and Hanford. David Manuta and Michael Ketterer appear.
- **11-19-20 [The Ohio Health Department places Pike County at the top of the list of cancer rates](#)** Lamersons are raising two boys in the shadow of PORTS and they say they're constantly worried about the risk there.
- **11-19-20: Part 3 of Drifting Death: [Why is a local county a cancer hot pot?](#)** 4:44 minutes Pike County#1 spot for cancer in Ohio. Zach Farmer, Kate Smith, Matt Brewster conducted health survey. Zahn's Comer Middle School. DOE says nothing above naturally occurring levels. 2 dozen monitors. Chic said they cut the take short and did not explain the red and green dots. One monitor 13 miles from the plant. DOE says below limits set by state and local governments. Links to OOH 2019 "[Ohio Cancer Atlas](#)" and [A 2019 report of cancer from 2012 to 2016](#) showing Pike County had an average of 179 new cancer cases and 67 deaths each year in a county with a population of just 27,772.
- **11-5-20: Part 2 of Drifting Death: [Local Middle School Closed After Fears of Radiation](#)** 5:55 minutes Talks about 2 Zahn's Corner Middle School kids that died of cancer and response from DOE. Kate Smith. Three more from the school also have cancer.
- **11-3-20: Part 1 of Drifting Death: [Was a star athlete's cancer connected to a facility next door?](#)** 7:10 minutes Zach Farmer dies of acute myeloid leukemia. Piketon Site. Zahn's Corner Middle School.

There are new members of this board. At the last meeting I do not recall them being introduced.

The SSAB has languished since the beginning because the Dept. of Energy has tried to minimize its effectiveness. The SSAB was only established by DOE through the insistence and advocacy of Senator Sherrod Brown and his associates. The Board is only "advisory", meaning that DOE has no obligation to implement any suggestions they make. Some Boards overseeing DOE sites are called "Oversight Boards" and do have authority to force the DOE to implement their proposals. Three Sierra Club members were on the SSAB when it first was started. They resigned together after the first year with a strong public statement, citing conflicts of interest of Board members, DOE failure to follow Federal property transfer regulations, and violations of the SSAB's operating procedures.

The Board Chair should run the SSAB meetings, not someone paid by the public through the Dept. of Energy. The DOE has allowed the SSAB membership, which should be 20 people, to languish to 8 or less individuals at one time. It is good to see new members, but there should be 20 on this board.

**RECYCLED URANIUM  
MASS BALANCE  
PROJECT  
PORTSMOUTH, OHIO  
SITE REPORT**

June 19, 2000

...  
Prepared by  
TetraTech NUS and Theta Technologies, Inc.  
under subcontract 23900-BA-ES008

Prepared for the  
U.S. Department of Energy  
Office of Environmental Management

BECHTEL JACOBS COMPANY LLC  
managing the  
Environmental Management Activities at the  
Portsmouth Gaseous Diffusion Plant  
Under contract DE-AC05-98OR22700  
for the  
U.S. Department of Energy

## Executive Summary

This report has been prepared as the Portsmouth Gaseous Diffusion Plant (PORTS) response to Deputy Secretary of Energy, T.J. Glauthier's memorandum of September 15, 1999. It is presented to address:

1. Shipments and receipts of recycled uranium (RU);
2. Levels of transuranic (TRU) and fission product (FP) contaminants in the PORTS flows and processes that had the potential to expose workers; and
3. Information on mass balances for the RU, TRU, and FP to identify potential Environmental, Safety and Health (ES&H) concerns.

The PORTS site has received and dealt with RU and its legacy from startup through current modern day operations. Sources and amounts of RU received were:

1. Uranium hexafluoride ( $UF_6$ ) feed manufactured at the Paducah Gaseous Diffusion Plant (PGDP) or the Oak Ridge Gaseous Diffusion Plant (ORGDP) from recycled uranium trioxide ( $UO_3$ ) - 1,095.1 metric tons uranium (MTU);
2.  $UF_6$  feed supplied from other miscellaneous foreign and domestic sources - 5.0 MTU; and
3. Oxides and other non- $UF_6$  forms of uranium containing TRU/FP from miscellaneous foreign and domestic sources for conversion to  $UF_6$  at the PORTS Oxide Conversion Facility - 19.0 MTU.
4. A total of 4.6 MTU of non- $UF_6$  may have been utilized for development activities.

Additionally, an estimated 60 to 90 kilograms (kg) of the fission product technetium-99 ( $^{99}Tc$ ) were received through FY 1997 in some 121,485 MTU of enriched  $UF_6$  withdrawn from the PGDP cascade and supplied to PORTS as feed.

Most of the RU- $UF_6$  was used as gaseous diffusion (cascade) feed with the last sizeable amount (400 MTU) fed in January 1974. Subsequently, a smaller amount, 1.4 MTU of highly enriched uranium (HEU) RU- $UF_6$  was fed to the X-326 Process Building cascade as late as FY 1997 - FY 1998. Of the total 23.6 MTU received as non- $UF_6$ , 5.6 MTU was converted to  $UF_6$  in the Oxide Conversion Facility. Approximately 1.9 MTU of the 5.6 MTU of  $UF_6$  this was used as cascade feed. The disposition of the 4.6 MTU of non- $UF_6$  that was potentially used for development activities is uncertain.

Shipments of RU materials from PORTS were limited to those fractions of receipts not processed (cylinder heels, rejected materials, unconverted oxides, etc.) and through March 1999 totaled 15.6 MTU. There was 8.3 MTU of RU materials remaining on site March 31, 1999 (not including wastes, sludges, etc.).

Enriched  $UF_6$  from the PORTS site was, and continues to be, essentially free of TRU contamination. Low but detectable levels of  $^{99}Tc$  were, and continue to be, present in the product. At times, high levels of this contaminant have required additional processing in order to produce product within specifications.

$UF_6$  tails from the gaseous diffusion cascade are and have been essentially free of TRU/FP.

Locations where worker exposure to TRU was most likely to occur:

1. Cascade cells near RU feed points;
2. Equipment removed from these cells during maintenance and change-out evolutions; and

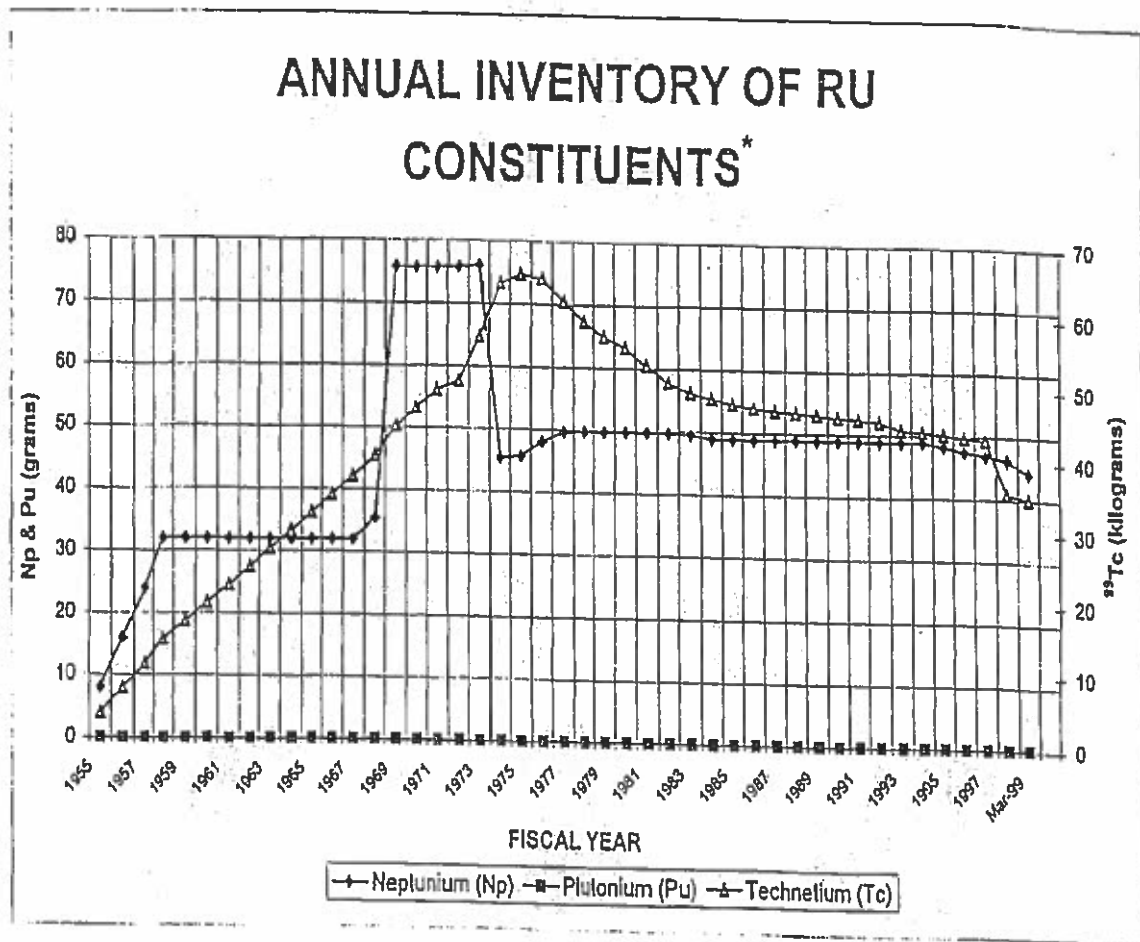
- Oxide conversion operations – especially during evolutions involving the handling of filter ash while in operation on RU feed.

Locations where worker exposure to  $^{99}\text{Tc}$  was most likely to occur are:

- Top cascade cells (purge cascade);
- Cascade vent alumina traps;
- Magnesium fluoride ( $\text{MgF}_2$ ) traps for  $^{99}\text{Tc}$  reduction; and
- Decontamination and Uranium Recovery Building (X-705) solution recovery raffinates and their treatment sludges.

Figure ES-1 depicts the PORTS annual inventory of TRU/FP constituents of RU.

Figure ES-1



\* Does not include 4.6 MTU that was potentially utilized for development activities

Ongoing ES&H concerns from past operations dealing with TRU/FP are primarily those associated with trace quantities of TRU and  $^{99}\text{Tc}$ . Technetium continues to be detected throughout much of the cascade (albeit at low levels) in plant process vents, effluents, and enriched product streams.

The majority of TRU constituents have been removed from the cascade with two equipment change-out programs. These constituents would also be in Low Enriched Uranium (LEU) oxides produced from the solutions used to decontaminate and clean this change-out equipment. These oxides were containerized or shipped and no longer present a significant concern at PORTS. A small fraction of these constituents remains in the process equipment that was not changed-out.

Activities during the 1990's associated with suspension of HEU production introduced 1.4 MTU of RU containing low levels of TRU into the X-326 cascade under the HEU refeed program. Constituents introduced during this program will remain until the process equipment is removed.

Since plant startup, many cases of worker exposure to and uptake of uranium are known and documented to have occurred. While no internal dose has been assigned to workers from TRU constituents of RU, it is likely that an uptake of these constituents has occurred at very low levels in the range of the limits of detection. Workers are known to have been exposed to  $^{99}\text{Tc}$ .





# PORTSMOUTH SITE UPDATE

**Jeremy Davis, DDF0, PORTS Site Lead,  
Portsmouth Paducah Project Office  
SSAB Board Meeting • November 2022**

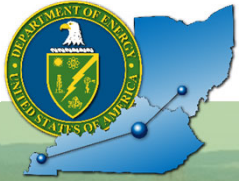






# Portsmouth Integrated Projects Status





# Integrated Project Portfolio Success

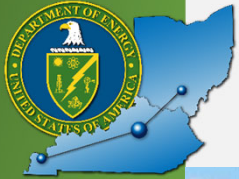
**DEMOLITION**

**DISPOSAL**

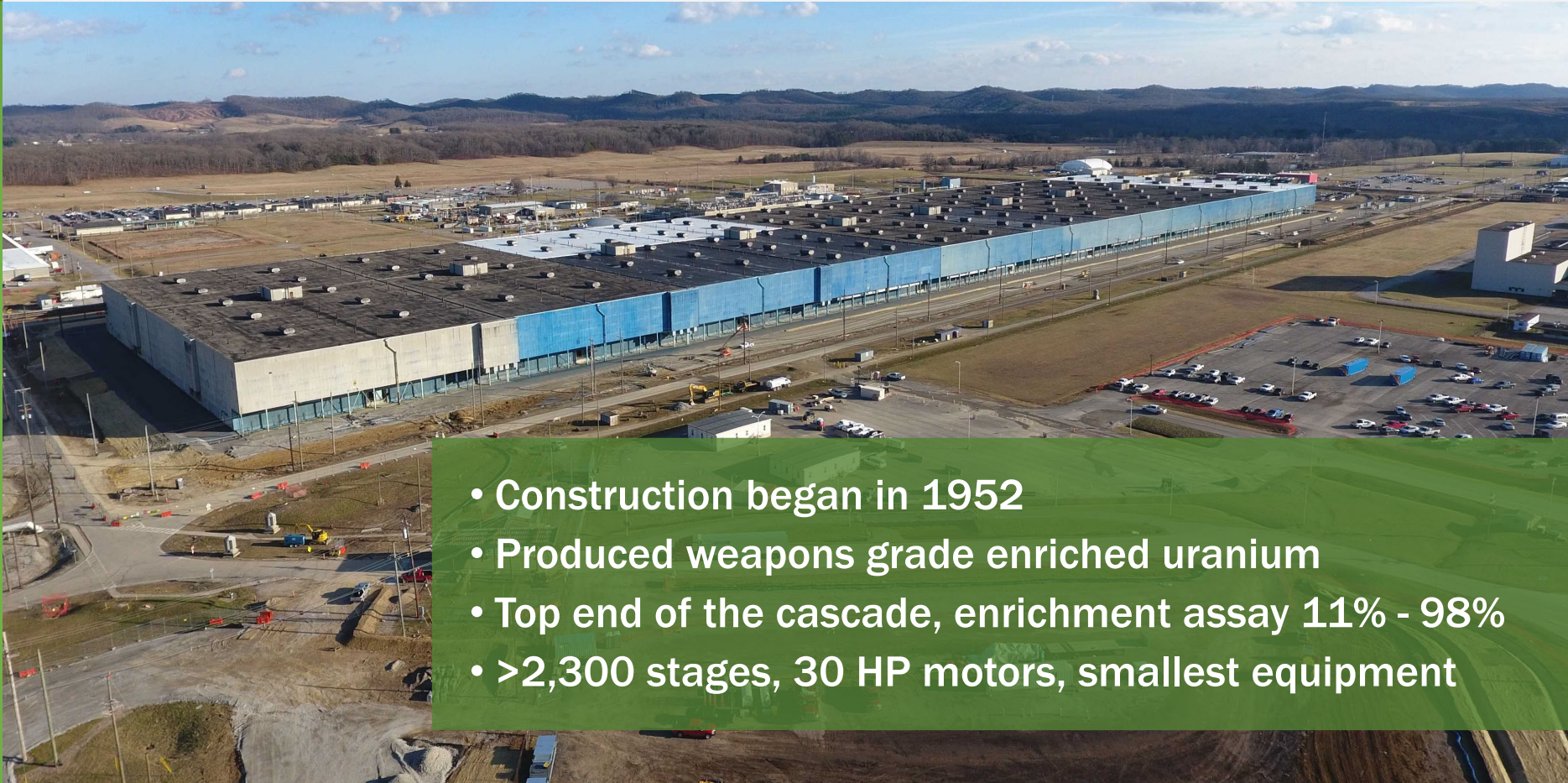
**EXCAVATION**







## PORTS D&D - X-326 Process Building



- Construction began in 1952
- Produced weapons grade enriched uranium
- Top end of the cascade, enrichment assay 11% - 98%
- >2,300 stages, 30 HP motors, smallest equipment





# PORTS D&D X-326 Process Building



| FY2012 | FY2013 | FY2014 | FY2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|--------|--------|--------|--------|------|------|------|------|------|------|------|
|--------|--------|--------|--------|------|------|------|------|------|------|------|

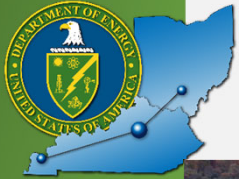
Deactivation  
began



Deactivation  
complete

Structural  
Demolition  
complete





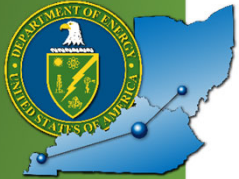
## OSWDF Status



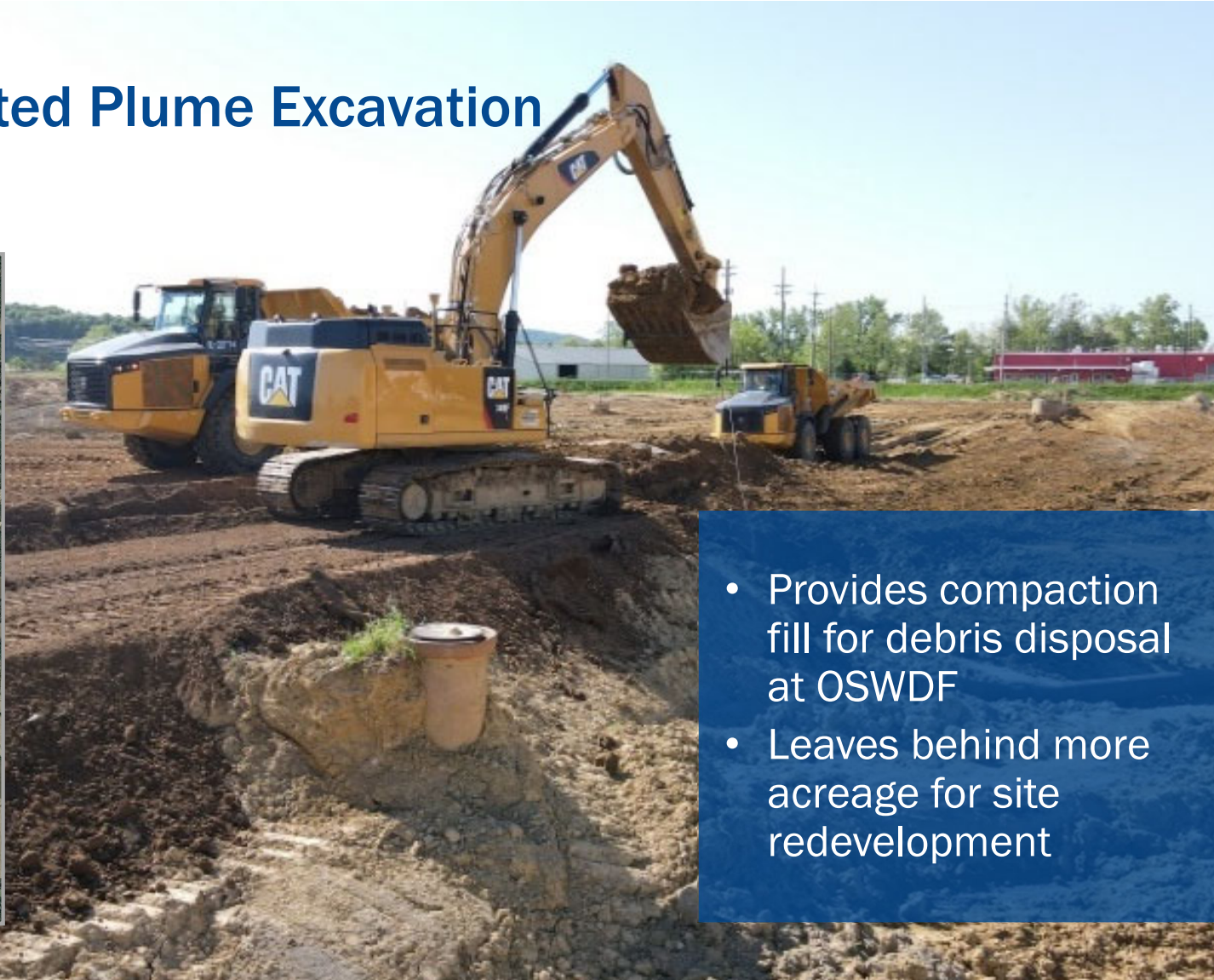
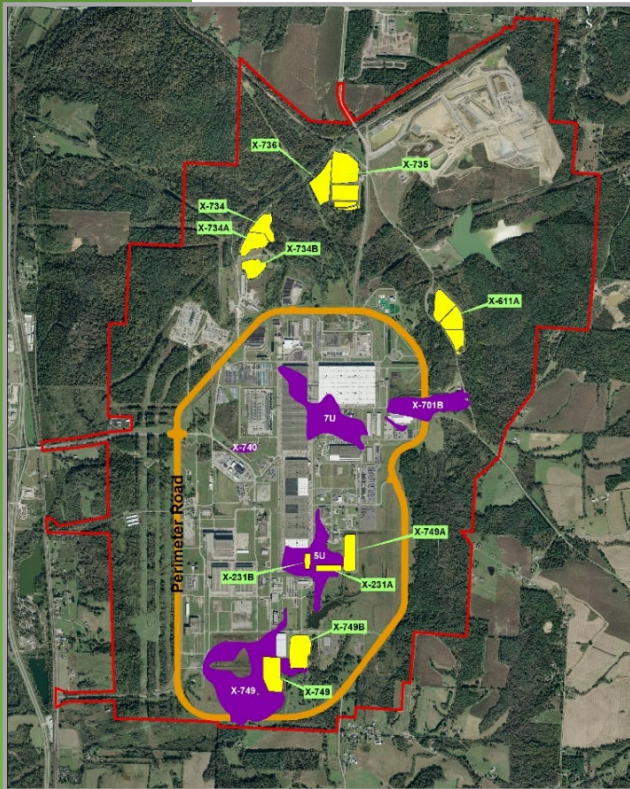
- ✓ First 3 cells constructed
- ✓ First waste placement - May 2021
- ✓ 21 acres of waste disposal capacity
- ✓ 32-acre soil management area
- ✓ Second capital asset project under construction
- ✓ Initiated third capital asset project

**2023 GOAL**  
Complete Disposal  
of X-326 Demolition Debris



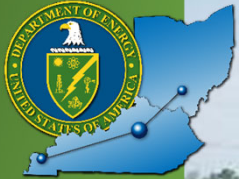


# Contaminated Plume Excavation



- Provides compaction fill for debris disposal at OSWDF
- Leaves behind more acreage for site redevelopment





## Contaminated Plume Excavation

### X-740 Plume Excavation

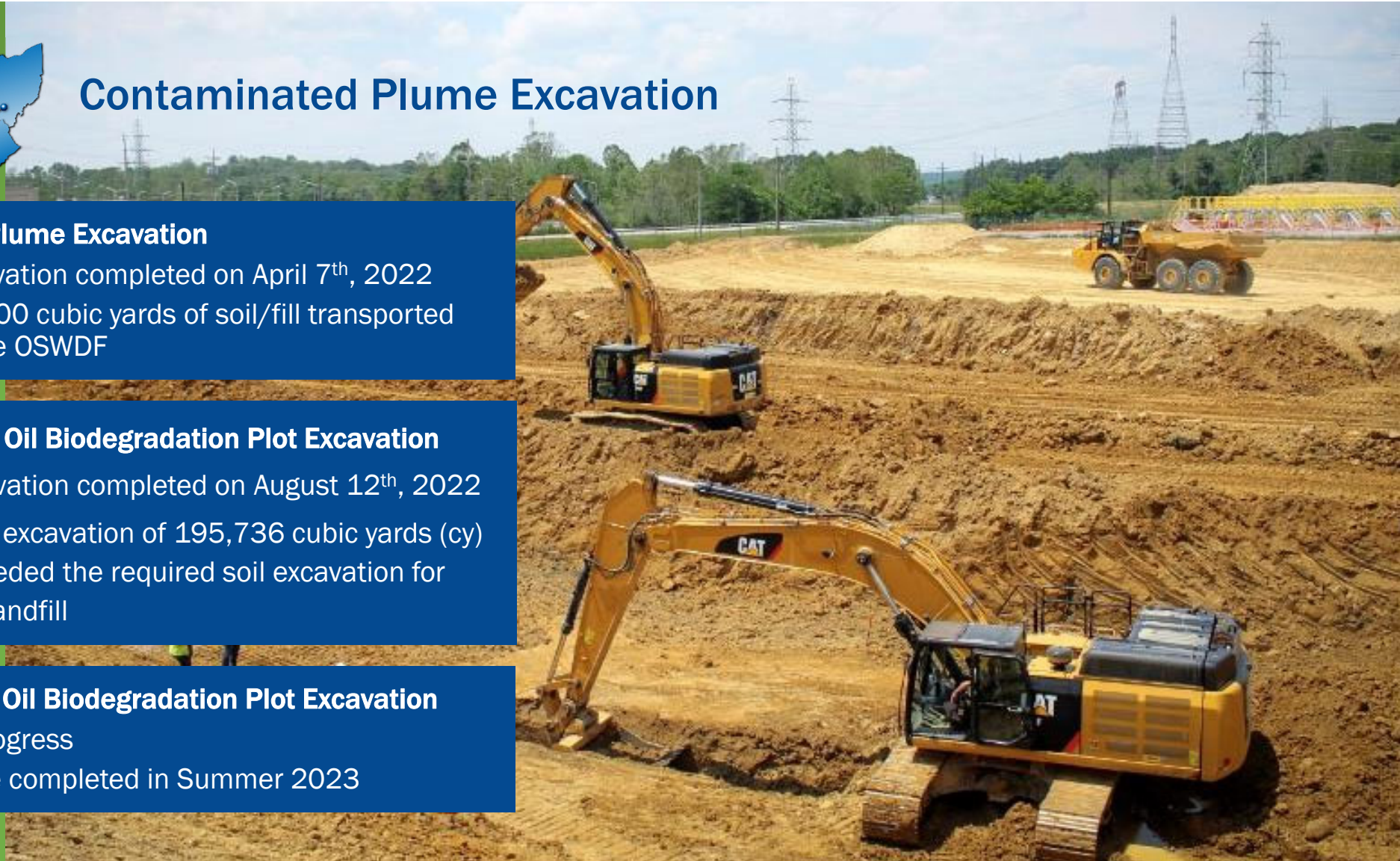
- Excavation completed on April 7<sup>th</sup>, 2022
- 42,000 cubic yards of soil/fill transported to the OSWDF

### X-231B Oil Biodegradation Plot Excavation

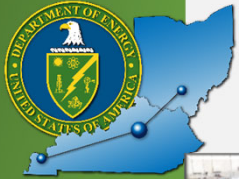
- Excavation completed on August 12<sup>th</sup>, 2022
- Total excavation of 195,736 cubic yards (cy) exceeded the required soil excavation for the landfill

### X-231A Oil Biodegradation Plot Excavation

- In progress
- To be completed in Summer 2023







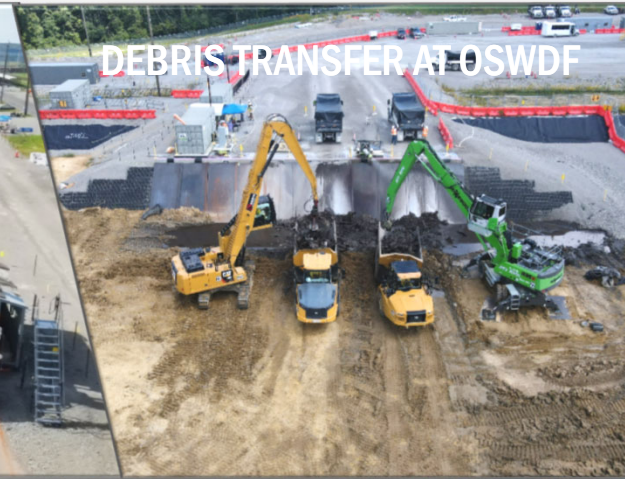
# Demolition Debris: Load-out to Placement



X-326 DEBRIS  
135,000 cubic yards



DEBRIS LOAD-OUT AT X-326



DEBRIS TRANSFER AT OSWDF



DEBRIS PLACEMENT IN CELL GRID

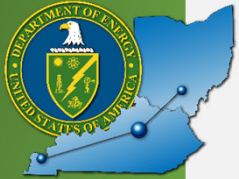


SOIL FOR COMPACTION



OSWDF CELL MANAGEMENT

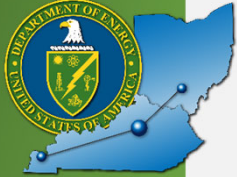




## 2021 ASER



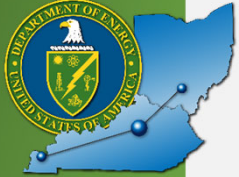
- Portsmouth 2021 ASER submitted to HQ; public release is being coordinated
- The Annual Site Environmental Report, ASER, is prepared annually for the public.
- Comprehensive summary of environmental activities and monitoring data from the Portsmouth Gaseous Diffusion Plant
- Current and past copies of the ASER are available to the public at:
  - [eic.ports.pppo.gov](http://eic.ports.pppo.gov)



## 2021 ASER

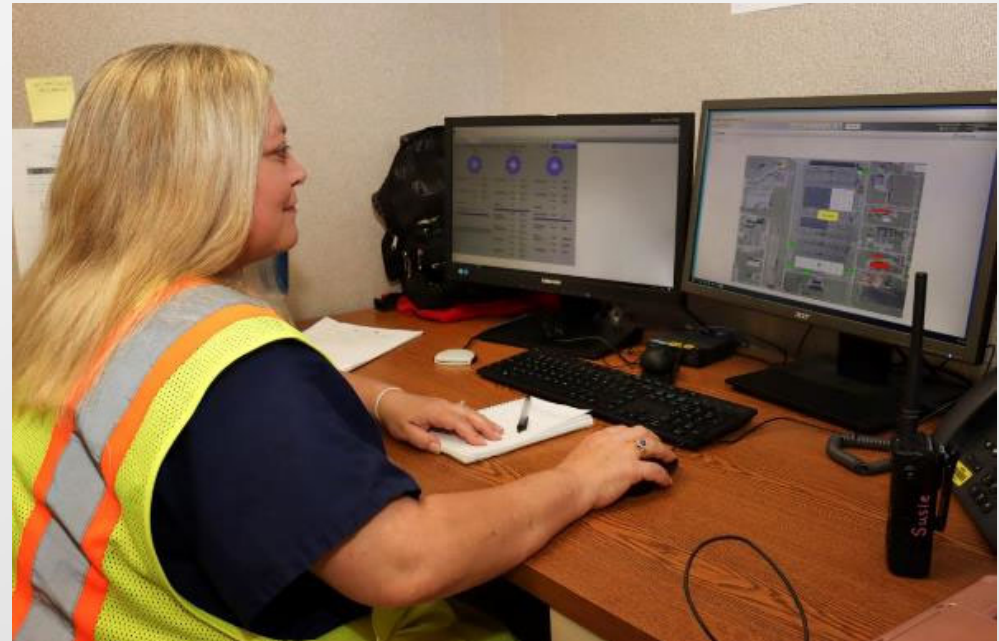


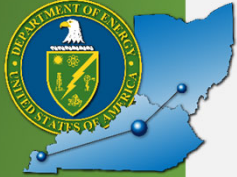
- Environmental data published in the 2021 ASER is consistent with previous years
- In 2021, technetium-99 was detected at measurable levels at two monitoring locations (site surface water samples).
  - The levels of technetium-99 detected are much less than the DOE derived concentration standards for technetium-99
  - Technitium-99 was non-detect at these locations for sampling conducted in January 2022.
- Annual dose to public from PORTS as reported in the 2021 ASER - 0.48 mrem
- All results found are below the limits set by state and federal environmental laws



## X-326 Project Monitoring

- Project and Co-located monitors provide real time and quarterly data results from X-326 demolition.
- **Real Time Monitoring** provides the first line of defense and provides ability to immediately react to field activity.
- Real Time Monitoring results show that no detects above regulatory limits have been found

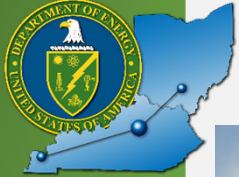




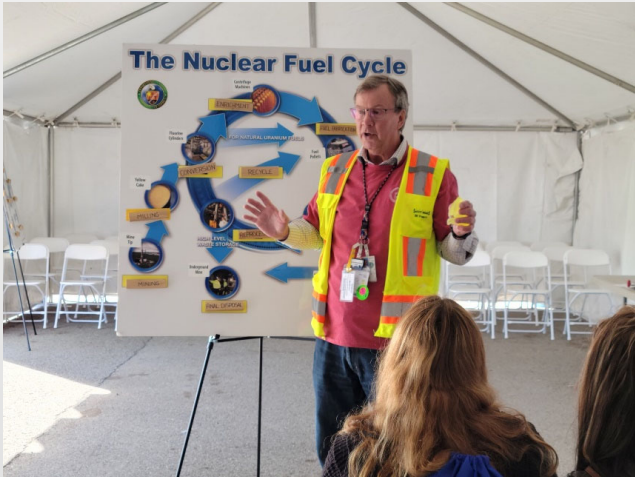
## X-326 Co-Located Air Monitoring Summary

- Results from DOE co-located air monitors are consistent with Ohio EPA and ODH independent monitoring data.
- The current results from all monitors including DOE and State of Ohio indicate no detects have been found above regulatory limits
- Monitoring data posting websites:
  - DOE – <https://pegasis.ports.pppo.gov>
  - Ohio EPA – <https://epa.ohio.gov/dapc/ams/amsmain/AMSSpecSam-DOE>
  - ODH – [https://data.ohio.gov/wps/portal/gov/data/view/doe-portsmouth-facility\\_-radiological-air-sampling-results](https://data.ohio.gov/wps/portal/gov/data/view/doe-portsmouth-facility_-radiological-air-sampling-results)





## Science Alliance



- After a 2 year hiatus, over 1100 students attended the 2022 DOE PORTS Science Alliance
- This event offers students a hands-on approach to STEM and an opportunity to meet with local universities and employers
- Also in attendance were:
  - 12 Universities
  - 8 businesses
  - 21 Schools
  - 68 teachers and chaperones
  - 104 volunteers/presenters

# PORTSMOUTH SITE SPECIFIC ADVISORY BOARD ANNUAL WORK PLAN Fiscal Year 2023



The attached SSAB Work Plan has been agreed upon by U.S. Department of Energy and the Portsmouth Site Specific Advisory Board on Date X, 2022:

**PORTS  
SSAB**



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Mr. Jody Crabtree, Board Chair  
Portsmouth SSAB

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Mr. Jeremy Davis, DDFO  
Department of Energy Portsmouth Site

## INTRODUCTION

The Portsmouth Gaseous Diffusion Plant (PORTS) Site Specific Advisory Board (SSAB) is a stakeholders' board, chartered to provide advice and recommendations to the U.S. Department of Energy (DOE) on decontamination and decommissioning, environmental remediation, waste management, and related issues at the Portsmouth Site. The Portsmouth/Paducah Project Office (PPPO) manages the Environmental Management (EM) activities in Portsmouth.

The SSAB is comprised of volunteers, chosen to reflect the diversity of gender, race, occupation, views, and interests of persons living near the Portsmouth Site. The board is committed to reflecting the concerns of the communities impacted by the environmental management of the plant site. Besides DOE, the Ohio Environmental Protection Agency (OEPA) and the Ohio Department of Health (ODH) are represented in an advisory capacity.

The scope of the SSAB is to provide advice and recommendations concerning the following EM site-specific issues: environmental restoration; waste management; recycling; future land use and long-term stewardship. The Board may also be asked to provide advice and recommendations on any other EM projects or issues.

The Board meets to hear presentations by persons working on relevant environmental management topics, listen to and discuss input from citizens, consider recommendations developed by the PORTS SSAB subcommittees, and perform other business. The Board strives for consensus in reaching decisions and conducts business under a set of bylaws, standing rules, and special rules of order, which incorporate the principles of *Robert's Rules of Order*.

Most months SSAB members participate in subcommittees to focus on various topics related to site cleanup. Active subcommittees for the fiscal year 2023 were established based on project priorities, as selected by the SSAB members, with guidance from DOE. They are:

- Environmental Monitoring, Health and Safety
- Future Land Use
- Contracts and Baselines

This Work Plan addresses the SSAB priorities for the 2023 Fiscal Year. Although the Board intends to structure its activities to focus on the priority projects, it is understood that other topics may present themselves that could result in deviation from the Work Plan. A prescribed process is followed to alter the SSAB work plan with alterations accepted and approved by both the SSAB and DOE.

## SSAB ADMINISTRATIVE BOARD MEETINGS

SSAB administrative meetings are intended to communicate the business of the SSAB and to discuss and vote on recommendations to be submitted to DOE. In addition, Deputy Designated Federal Official (DDFO) comments will be made in the form of a presentation intended to brief SSAB members of recent developments and provide site highlights and accomplishments.

SSAB meetings will also be the forum for educational presentations that complement the working session or site management matters. Examples of suggested topics for presentations may include the annual budget process and risk education.



| <b>PORTS SSAB 2022- 2023 Meeting Schedule</b> |  |   |  |
|---|--|---|--|
| Month   | EM/HS<br>"project execution"   | Future Land Use<br>"project completion"   | Contracts/Baseline<br>"project strategy"                               |
| September 2022                                | National Chairs Meeting  |   |  |
| October 2022                                  | Site EM project update and overview  | Future Use 101: land use and economic development; History of Property Land Use Efforts/ Studies  |  |
| November 2022<br><b>Board Meeting</b>         | Clean Up Strategy and Planning   | PORTS Land Use Plan; Property Transfer Strategy; Future Redevelopment (infrastructure/ easements) |  |
| December 2022                                 | December Educational Session: Contractor Community Involvement Update                  |   |  |
| January 2023<br><b>Board Meeting</b>          | Environmental Monitoring and Results including 2021 ASER                               | SODI Update and Interactions with DOE; SODI/ OU New Initiatives                                   |  |
| February 2023                                 | Public and Worker Safety Overview (Dr. Highley)  |   | Baselining 101 and PORTS Baseline                                      |
| March 2023<br><b>Board Meeting</b>            | DOE/OEPA/ODH co-located monitoring overview  |   | DOE Contracts and PPPO Contracting Strategy; Community Commitment Plan |
| April 2023                                    | DOE Quarterly Public meetings  |   |  |
| May 2023<br><b>Board Meeting</b>              | Environmental Monitoring and the Community – (student ASER, public meetings, websites) |   | Update on Budget Numbers/ Impacts                                      |
| June 2023                                     |  |   |  |
| July 2023                                     | New Member Orientation and Site Training/ Tours  |   |  |
| August 2023                                   |  |   |  |

PORTS SSAB will establish an Executive Committee to help with updating Board Operating Procedures, membership recruitment efforts, and the annual funding request recommendations.

## PORTS SSAB 2022- 2023 Workplan Topics and Deadlines for DOE Recommendations

|                      |   |  |
|----------------------|---|--|
| <b>November 2022</b> | <b>Work Plan Item:</b>  | <i>Infrastructure and Redevelopment</i>  |
|                      | <b>Briefing Provided:</b>   | November 2022  |
|                      | <b>Recommendation/Deadline:</b>   | January 2023   |
|                      | <b>Description: DOE, board members and support staff will meet virtually if local COVID level are in a “red” status with a preference of in person. Regulators, liaisons, and support contractors will participate virtually.</b> | <p><u>Background:</u><br/>         As DOE makes plans to complete active D&amp;D of the PORTS site, there is an opportunity to make decisions on the removal or transfer of site infrastructure. DOE will discuss current plans within the DOE baseline and allow local economic developers to share their thoughts and insights on infrastructure needs for redevelopment.</p> <p><u>SSAB Scope:</u><br/>         From a community perspective, the SSAB will be asked to provide a recommendation on what infrastructure should be considered for transfer as part of the cooperative site/ community redevelopment efforts.</p> |

|                     |   |  |
|---------------------|---|--|
| <b>January 2023</b> | <b>Work Plan Item:</b>  | <i>Environmental Monitoring and 2021 ASER</i>  |
|                     | <b>Briefing Provided:</b>   | January 2023   |
|                     | <b>Recommendation/Deadline:</b>   | March 2023   |
|                     | <b>Description: DOE, board members and support staff will meet virtually if local COVID level are in a “red” status with a preference of in person. Regulators, liaisons, and support contractors will participate virtually.</b> | <p><u>Background:</u><br/>         DOE publishes an Annual Site Environmental Report that compiles environmental monitoring data collected over a lagging calendar year. The data is compiled, and a report is produced that communicates the status of the data collected.</p> <p><u>SSAB Scope:</u><br/>         From a community perspective, the SSAB will be asked to provide a recommendation on ways to enhance the ASER and improve the way DOE communicates environmental data with local stakeholders.</p> |

|                      |   |  |
|----------------------|---|--|
| <b>February 2023</b> | <b>Work Plan Item:</b>  | <i>Annual Funding Requests</i>   |
|                      | <b>Briefing Provided:</b>   | February 2023  |
|                      | <b>Recommendation/Deadline:</b>   | March 2023   |
|                      | <b>Description: DOE, board members and support staff will meet virtually if local COVID level are in a “red” status with a preference of in person. Regulators, liaisons, and support contractors will participate virtually.</b> | <p><u>Background:</u><br/>DOE provides an overview of the baseline and project expenditures for upcoming years. DOE will discuss potential impacts and project acceleration possibilities.</p> <p><u>SSAB Scope:</u><br/>From a community perspective, the SSAB will be asked to provide a recommendation on DOE’s annual funding request and prioritizations for budgetary surpluses or shortfalls.</p> |