



# PORTSMOUTH EM SITE SPECIFIC ADVISORY BOARD

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

## Proposed Agenda for the December 6, 2018 Board Meeting

### Chair

Robert L. Berry

### Co-Vice Chair

Carlton L. Cave

### Board Members

Lisa Bennett  
Todd Burkitt  
Bradley Burns  
Jody Crabtree  
Maddeline C. Caudill  
Dennis Foreman  
Wade Fraley  
Brandon Greene  
Turman Helton  
Ronda J. Kinnamon  
Cynthia Quillen  
Jimmy E. Smalley  
Beckie Thomas-Kent  
Judy R. Vollrath

### 6 p.m.

Call to Order, Introductions  
Review of Agenda  
Approval of October Minutes

### DDFO Comments

--15 minutes

### Federal Coordinator Comments

--10 minutes

### Liaison Comments

-- 5 minutes

### Presentation –

--20 minutes

X-326 Deactivation Update and Future Milestones- Jud Lilly, DOE

### Administrative Issues

--10 minutes

- Recognition of past members

### Subcommittee Updates

--5 minutes

### Public Comments

--15 minutes

### Final Comments from the Board

--15 minutes

### Adjourn

### Deputy Designated

### Federal Official

Joel Bradburne

### DOE Federal Coordinator

Greg Simonton

### Support Services

EHI Consultants, Inc.  
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Piketon, OH 45661  
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## PORTSMOUTH EM SITE SPECIFIC ADVISORY BOARD

MINUTES OF THE THURSDAY, DECEMBER 6, 2018, 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, Bob Berry; Vice-Chair, Carlton Cave; Brad Burns, Jody Crabtree, Rick Fraley, Dennis Foreman, Turman Helton, Jimmy Smalley, Beckie Thomas-Kent, Cynthia Quillen, Judy Vollrath

**SSAB Members Absent:** Lisa Bennett, Dr. Todd Burkitt, Carol Caudill, Brandon Greene, Ronda Kinnamon

**U.S. Department of Energy (DOE) and Contractors:** Joel Bradburne, Greg Simonton, Jud Lilly, DOE; Rick Greene, Joe Moore, Restoration Services, Inc. (RSI); Julie Galloway, Cindy Lewis, EHI Consultants (EHI); Jack Williams, Jill Thomson, Fluor-BWXT Portsmouth (FBP)

**Liaisons:** Sean Kubera, Ohio Department of Health (ODH); Amy Tegethoff, Tom Schneider, Ohio Environmental Protection Agency (EPA)

**Facilitator:** Eric Roberts, EHI

**Public:** Kevin Shoemaker, Southern Ohio Diversification Initiative (SODI); Pat Marida, Sierra Club; Matt Miller, Dan Longpre, Portsmouth Mission Alliance, LLC (PMA); Matt Lucas, News Watchman; Vina Colley, PRESS/NNWJ; Lee Blackburn, Diana Cahall

Approved by Bob Berry, Board Chair

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Bob Berry

**Call to Order:**

**Berry:** 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.

**October Agenda:**

**Roberts:** Are there any modifications or proposed changes to the December agenda?

- **Cave:** I make a motion to approve the December agenda
- **Helton:** I second the motion.
  - **Motion carried, minutes approved**

**October Minutes:**

**Roberts:** Are there any modifications or proposed changes to the October minutes?

<b>Question/Comment:</b>	<b>Answer:</b>
<b>Foreman:</b> I would like to get the minutes earlier.	<b>Roberts:</b> Our plan is to get them earlier.

- **Burns:** I make a motion to approve the October minutes.
- **Thomas-Kent:** I second the motion.
  - **Motion carried, minutes approved (1 abstension)**

**DDFO comments provided by Joel Bradburne, Site Lead, DOE:**

- **DOE Public Availability Session**
- **Environmental Management System (EMS) Intergrates with ISMS and Sustainability**
- **PORTS Intergrated Baseline**
- **D&D Progress - X-326 Deactivation**
  - **Asbestos Removal**
  - **Establishing Remote Access Control to the Wellfiends**
  - **Renovations in the XT-801**
- **D&D Progress - X-333 Deactivation**
- **OSWDF Construction**
- **First Plume Excavation Project**
- **Groundwater Cleanup**
- **Depleted Uranium Hexafluoride (DUF6) Conversion Plant Update**
- **Federal Project Director's Site Tours**
- **Mutual Aid**
- **Economic Development**
- **Educational Outreach**
- **Community Outreach**

• **Upcoming Outreach Events**

<b>Question/Comment:</b>	<b>Answer:</b>
<p><b>Foreman:</b> I just want to clarify at the last meeting, Joel Bradburne, you were not here. I was told it cost 340 thousand dollars for an observation deck to watch them place waste, is that correct? That is a lot of money. What access does the normal person have to that? What was the purpose of building that?</p>	<p><b>Bradburne:</b> If that is what they told you then that must be what it was.</p> <p>It is for public viewing.</p> <p>The location where it is at, the elevation is not going to change. That will be there for the entire duration of the job.</p>

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

**Federal Project Coordinator comments provided by Greg Simonton, Federal Project Coordinator:** Upcoming will be the Science Bowl at Shawnee State again this year in March. As of Tuesday, we have 27 teams signed up. The Annual Site Environmental Report (ASER) rewrite will be conducted by Waverly High School this year.

<b>Question/Comment:</b>	<b>Answer:</b>
<p><b>Foreman:</b> A couple of meetings a few months back, I asked Mr. Smith for a timeline of the workers projection for the workforce and I haven't heard anything. That's important to us, rumors in the community is there is going to be massive layoffs. Mr. Smith hasn't been around since then. Can you remind him of the question I asked?</p>	<p><b>Simonton:</b> Yes.</p>

**Liaison comments provided by Sean Kubera, ODH:**

**Kubera:** None.

**Liaison comments provided by Dustin Tschudy, OEPA:**

**Tegethoff:** None.

**Schneider:** None.

**Presentation-X-326 Deactivation & Demolition Update and Future Milestones- Jud Lilly, DOE:**

- **D&D Project Status**
- **X-236 Process Building**
- **X-326 Deactivation Accomplishments**
- **Demolition Sequencing**
- **X-326 Initial Demolition Infrastructure**

- X-326 Demolition Water Treatment
- X-326 Demolition Requirements
- X-326 Demolition Work
- X-326 Demolition Controls
- Disposal of Demolition Debris
- Schedule
- Questions/Comments

<b>Question/Comment:</b>	<b>Answer:</b>
<p><b>Foreman:</b> I have a question about controlled demolition. Is that the same as they do in Hanford?</p> <p>That is some of the things I see in photos at Hanford. They had to stop temporarily because of contamination. What is the game plan to make sure it is controlled?</p> <p>You said double bagging the asbestos? With the WAC will that just go in the on-site cell?</p> <p>How many tons do you think you have of asbestos?</p> <p>Can we get the meaning from EPA on what a fixative application is?</p> <p>How is the haul road going to work? How can it go from there to the waste cell? Is there going to be a tunnel, a bridge?</p> <p>I have a question with the water-controlled system. Will there be a problem with mercury here? What</p>	<p><b>Lilly:</b> It is probably the same term. The federal analog for these facilities is Oak Ridge. Oak Ridge had five gaseous enrichment buildings and those were taken down piece of piece by controlled demolition. So, we have a really good analog for controlled demolition here. We have hybrid sheers to take the building apart very carefully.</p> <p>That is what we are going to be getting into. Hopefully the presentation will answer your questions. Correct.</p> <p>The cell is approved for disposal of asbestos.</p> <p>It is a big building, we will be able to finish the asbestos removal work within a year.</p> <p>Another word is lock down, it adheres to the steel and concrete so any dust on that is caked down so when we take down the building it minimizes the dust production from the demolition.</p> <p>I will show you the road, it is on the west side. It allows us to get to all three buildings.</p>

<p>standards will that water system have? Do you understand my question?</p> <p>I would like to know that for our area.</p> <p>Most of the places you will use the sheers will have the fixative because of the metal. Are you talking about sheers that just snap it? Explain to me how these sheers work.</p> <p>On the haul road, school buses go through there, so why don't we just not go through there when the school buses are there? I am just concerned, I want to lessen the chance of an accident with the children. I would like that to be addressed.</p> <p>How much rain? We usually average about 45 inches a year, but there was one day we had over four inches of rain. That is a lot of water. If that thing gets overrun, and that could happen, that is one of my concerns is the management of water.</p>	<p><b>Schneider:</b> They are building a water treatment system.</p> <p>Yes, but I am not familiar with mercury numbers.</p> <p>They are high reach industrial sheers. If you reach up and grab the concrete, Page 10-11 is a picture of them and how they work. It cuts the structural steel piece by piece. The water will be sprayed while the cutting is done.</p> <p>The haul road will cross over the roads beside them.</p> <p><b>Roberts:</b> We can ask for that to be covered on the discussion, because there has to be a plan in place for that. We can look into that and pull some data and see how that is handled.</p>
<p><b>Quillen:</b> On the previous slide when will the demolition start?</p>	<p><b>Lilly:</b> July 2022, the key here is we have the disposal facility and the building moving at the same pace. So once the disposal facility is ready, we need to also be ready to start putting our waste into it and at the same time the engineered fill needs to be ready also at the same time. They all go together.</p>
<p><b>Smalley:</b> This schedule must be pretty flexible. I know when I was hired in 2012, they said demolition would be 2025. I was told they would crawl, walk and run. I also wanted to ask if you have taken into consideration all the tunnels underneath there?</p>	<p><b>Lilly:</b> When you get started with this big equipment, things start moving faster, the work on the inside has been at a crawl.</p>

	Yes, when we were talking about sealing, we will be sealing all the tunnels under the building. So, they will all be sealed off.
<b>Helton:</b> When you start demolition will it be local contractors cutting or contractors with experience?	<b>Lilly:</b> These people will be from the local hall.

**Administrative Issues:**

Recognition of past members Al Don Cisco and Carl Hartley by Greg Simonton, DOE

**Subcommittee Updates:**

**Budget and Lifecycle Planning Subcommittee Update by Judy Vollrath:**

**Vollrath:** The Budget and Lifecycle Planning Subcommittee met on October 9. The purpose of the meeting was to elect leadership and report on the FY 2019 budget request.

**D&D/Remediation Subcommittee Update by Brad Burns:**

**Burns:** The D&D/Remediation and Future Use Subcommittee met on October 9. The purpose of the meeting was to elect leadership and have an overview on the converter segmentation. The subcommittee met again on June 13. The purpose of the meeting was to receive an overview of transuranic materials.

**Future Use and Infrastructure Coordination Subcommittee Update by Dennis Foreman:**

**Foreman:** The Future Use and Infrastructure Coordination Subcommittee met on October 9. The purpose of the meeting was to elect leadership and a SODI overview and community/DOE master plan.

**Combined D&D/Remediation and Future Use and Infrastructure Coordination Subcommittees Update by Brad Burns and Dennis Foreman:**

The D&D/Remediation and Future Use and Infrastructure Coordination Subcommittees met on November 14. The purpose of the meeting was to present on DOE-Ohio EPA Natural Resources Damages agreement.

**Workforce Development, Education Outreach and Worker Training Subcommittee Update by Cindy Quillen:**

**Quillen:** The Historic Legacy & Community Engagement Subcommittee met on October 9. The purpose of the meeting was to elect leadership and discuss PORTS SSAB recruitment. The subcommittee met again on November 14. The purpose of the meeting was to have a recap of the Science Alliance.

**Public Comment:**

**Colley:** PRESS/NNWJ I am overwhelmed with what I am hearing especially from ex co-workers. This is the worst contaminated place in the whole world. It is in

everyone of these buildings and I think the government should give us this information. In all of these buildings we have transuranics. Plutonium on this site since 1953 and has been covered up. Until we recognize what is out here in this facility, we have workers that are fighting for their lives and dying now. We haven't gotten an accurate account of what this plant has done to these workers. I am concerned about you guys using scrap. You guys have been wonderful, I know you have jobs and want to keep your jobs. I want you to keep your jobs too and I want it to be cleaned up. Safely. And now you are sending your scrap offsite to four junkyards in the community. One junkyard is right down by me and I watched this piece of electrical equipment come down one day when I happened to be driving around the plant. Now that piece of equipment is on 104 getting ready to be put up. Everything on this site is contaminated. We have pine needles six miles from the plant according to the citizens lawsuit that is radio-active. So, can someone, anyone, can tell me how much plutonium do we have? We have had it since 1953. Was it enriched in uranium when we were doing high assay 99%? We are the largest facility in the world sitting on top of an aquifer in the midwest. I want answers, I want DOE or someone to tell me how much plutonium were we exposed to. Before we put more projects out here, we need to know what is here. The advisory board needs to be asking questions. You guys are here to represent the community and I do not hear anybody saying too much except Dennis Foreman and Smalley. I am very upset because I am a community person, and a worker of the plant and I know what is out there, because I have researched this facility for 38 years. Thank you.

**Blackburn:** As most of you know, my number one pet peeve is the landfills outside Perimeter Road need to be cleaned up. This was a pristine site before DOE came in and should be after they leave. If they do not clean those landfills, it will not be pristine. I know that Jeremy Perry had mentions that maybe if I write a recommendation to DOE that maybe those would get cleaned up, they properly would not do it but it should go on record. At the May board meeting you had recommendation 18-02 and it didn't pass because it didn't receive two-thirds majority. There were 8 approved and 6 opposed. The board operating procedures basically say you can have a majority report and a minority report and submit that to DOE. So, the question I have is does the board intend to submit these reports and if not why not? Next is the waste acceptance criteria when Jason Sherman was in town, he basically said that DOE is not interested in having a public meeting on the waste acceptance criteria or the record of decision. Earlier Ms. Wilson from Senator Brown's office indicated in May the fuzzy nature of the ROD and the WAC. We have come to the realization that the ROD says that the land under the disposal cell is fractured, not solid bedrock, so that means anything you put into that waste cell is going to leak out. All cells eventually will leak. I think the public has the right to know exactly what is going into the waste cell. As far as the Record of Decision, one of the issues there is DUF6. DOE in response to recommendation 15-05 as well as Jason Sherman a few weeks ago both said DUF6 in any of its forms would be prohibited from going into the disposal cell, yet the ROD clearly says all the piping in process buildings including DUF6 is going into the cell. So basically, we are being told one thing the ROD and DOE is saying something else. Ms. Wilson said that



Senator Brown wants DOE to listen to the people, as far as I can tell DOE is not listening.

**Marida:** I have been working on issues here at Piketon since about 1981. I echo what Lee Blackburn said about the cleanup here. The exact quote that Jeanne Wilson said the ROD and the WAC has holes big enough to drive a convoy of trucks through. We need to close those holes. I would recommend that this board ask for a public hearing. We desperately need one. What does the DOE have to lose by having a public hearing and hearing the input of the people of this community? That is really critical the people of this community are calling for it, as Lee said DOE is saying no way it is too late. Well, it is not too late to have a public hearing. The waste is going here, the Sierra Club has no objection to the rubble that is slightly radioactive going in it. We know that nothing lasts forever, we know that it will eventually leak into the aquifer, the bedrock is fractured, all rock as I understand is fractured anywhere near here. That is the main reason we do not want anything highly active to go into it, such as the cylinders. We are getting mixed information as to if the cylinders are going into this landfill or not. Let us hope that they are not, but we would like to do more than hope. As Vina said transuranics were brought into this facility and ran through the entire system since at least 1960, at least 10 years. It was reprocessed high level radioactive waste, it came from a number of places. It condensed on the inside of the pipes, so the pipes are contaminated with this. The steel workers have objected to cutting it up because it is so highly radioactive and highly contaminated and that should not go into the waste disposal cell. The landfills should all be dug up, the landfills were safety closed back in the 1950s and '60s when there weren't all those regulations for them, so you cannot say they meet all the regulations when they were constructed. The DOE doesn't even know what all these landfills contain. They should all be dug up and disposed of properly. This board needs to be very carefully monitoring what goes into the disposal cell.

**Cahall:** I want to add to this waste disposal criteria and ROD debate that is going on in the community. It does not seem to me that a public hearing with a Federal agency is ever a bad thing and if DOE is hesitating to grant one, contact Representative Brad Wenstrup. He could get you a hearing if he wanted to. The way to encourage him to want to is to contact his office and ask him. You get very little if you do not ask. I know in my paper there are endless contacts of senators. Just ask, can you get us a public hearing in Portsmouth on the waste disposal acceptance criteria? Can you get DOE to hold a public hearing for us. It is a 30 second or less phone call, but it could do your community a lot of good. That will be two phone calls he gets, because I am sure going to call him. Thank you.

**Roberts:** We are going to let Ms. Vina finish her comment.

**Colley:** One last thing I wanted to say is the bedrock fracturing is no secret. I testified to the NRC in 1997 and again 2014 that the bedrock is fractured. Plus, it is fractured horizontal and vertical. We do have a petition to open up the ROD, right now we have over 600 names. I think the government should come here and talk to

this community. We cannot help until we know what we have. We need to know all the facts about what is going on at this site. Everything goes to the Scioto River to the Ohio River. We have all been affected and we all need help. We need to know the truth.

**Final Comments from the board:**

<p><b>Foreman:</b> I just want to remind everyone that I keep the same message going forward. Piketon, Waverly, Portsmouth, Chillicothe, Jackson, Athens, New Boston, Kingston, Seal Township, Scioto Township, Jackson City Schools, Scioto Valley Schools, Piketon CTC (right across the street) Pike County Auditor and Treasurer, even the sheriff spoke, Pike County Health Department have all opposed on-site disposal. Mr. Brown said DOE should listen to the people. I will ever accept on-site disposal and there is nothing wrong with me saying that. That is my God given right, not a soapbox, it is what I believe. We do not have to say we accept it and we don't. Jason Sherman didn't say that DOE can't, he said that they won't, open the ROD. They can and correct me if I am wrong Mr. Bradburne, CERCLA law allows for community preference. Now a lot of people say there was a lot of discussion before 2015 and you had your opportunity. Piketon paid for a third-party assessment and we found out about some things that were misleading, and DOE admits to it. So, if there is nothing else wrong with it, work will continue it will not stop if you have a hearing. There would be no work stopping. That's one of the things people say. They will stop the work and shut the gates. No they won't. Like Mr. Cisco said we didn't bring that waste here, DOE did. They own every piece of contamination. These things are a serious concern to us. I asked questions tonight. We are not sure about the</p>	
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water, we are not sure about what is going in there, we are not for sure. That is not a good answer. We are talking about constructing a cell that is supposed to last a thousand years. What structure do we have in the United States that has lasted a thousand years? So, you tell me if you are not for sure, I am not for sure sometimes that I understand what you are saying. So why don't you just come out and have a public hearing. If it is so great, you have nothing to hide. Let us be transparent in this country. Transparency is the best thing possible in a public hearing, what is it going to hurt if everything is so great, everything goes forward, you say what is going in and we are all good. This board passed 19-01, which was a great thing, that is why I keep saying I love Jud Lilly, he keeps doing great things, he brought in the robotics, he has discussed what is going on with testing. It is amazing. We can have a robotics lab here. If we could have a purpose here in Piketon, I get tired of hearing reindustrialization. We do not have to money to fix all of our potholes. I am not against DOE and never have been, I love you guys being here. I want to see a purpose for the future. A robotics lab. Why do we here in Piketon, Ohio get nothing except we will clean it up. I believe the people here deserve a chance to be successful. STEM education, Science Alliance and Science Bowl those are great one-day events. I am glad we have that, glad to see DOE, and FBP spend the money for that, but a real STEM school takes a lot of money. A lot of things to give these children a step-up. These people are my people and I care about them, my nieces, nephews, cousins, neighbors, friends, everyone sitting at this table, I do care about them as much as you want to roll

<p>your eyes at me, shake your head at me, tell me to be quiet that is fine, but I will not stop because I care about this area. There is a difference when you live somewhere and have ownership. I told Jason when you own something it is a part of you and I will fight for my home. I don't care who you are, if you come to my home, I will fight you for my home. I will stand my ground and Pike County is my ground. I went to school in Portsmouth, I teach in Ross County, my parents lived in Jackson County. The biggest thing I want to remind you DOE, I want you to hear this, all these people have written a resolution, I want to continue to remind you of that.</p>	
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**Berry:** Adjourned

**Next Meeting:** February 7, 2019

**Action Items:** None at this time.

# U.S. DEPARTMENT OF ENERGY



## Deputy Designated Federal Official Presentation Portsmouth Site Specific Advisory Board

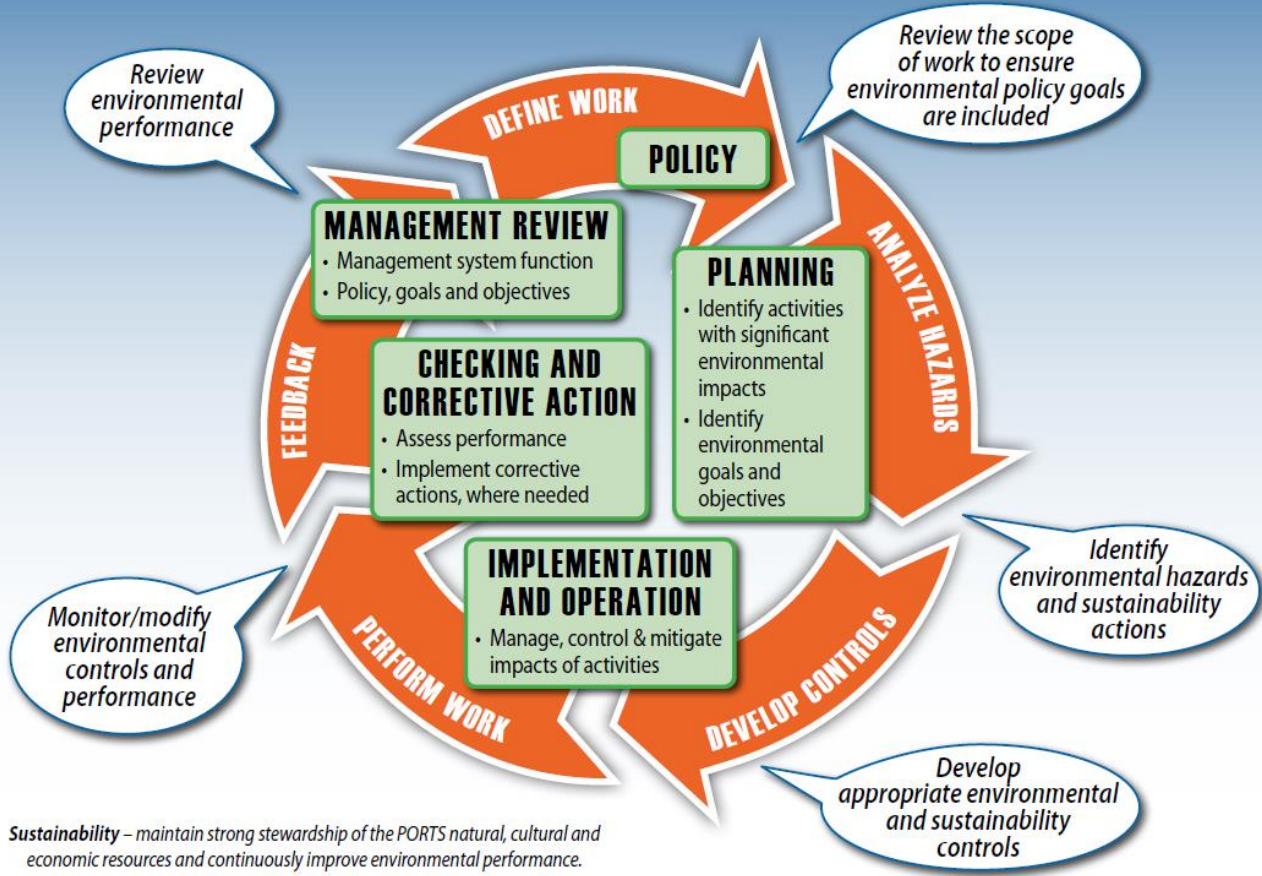
Greg Simonton, Federal Coordinator  
December 6, 2018



# DOE Public Availability Session



# Environmental Management System (EMS) Integrates with ISMS and Sustainability



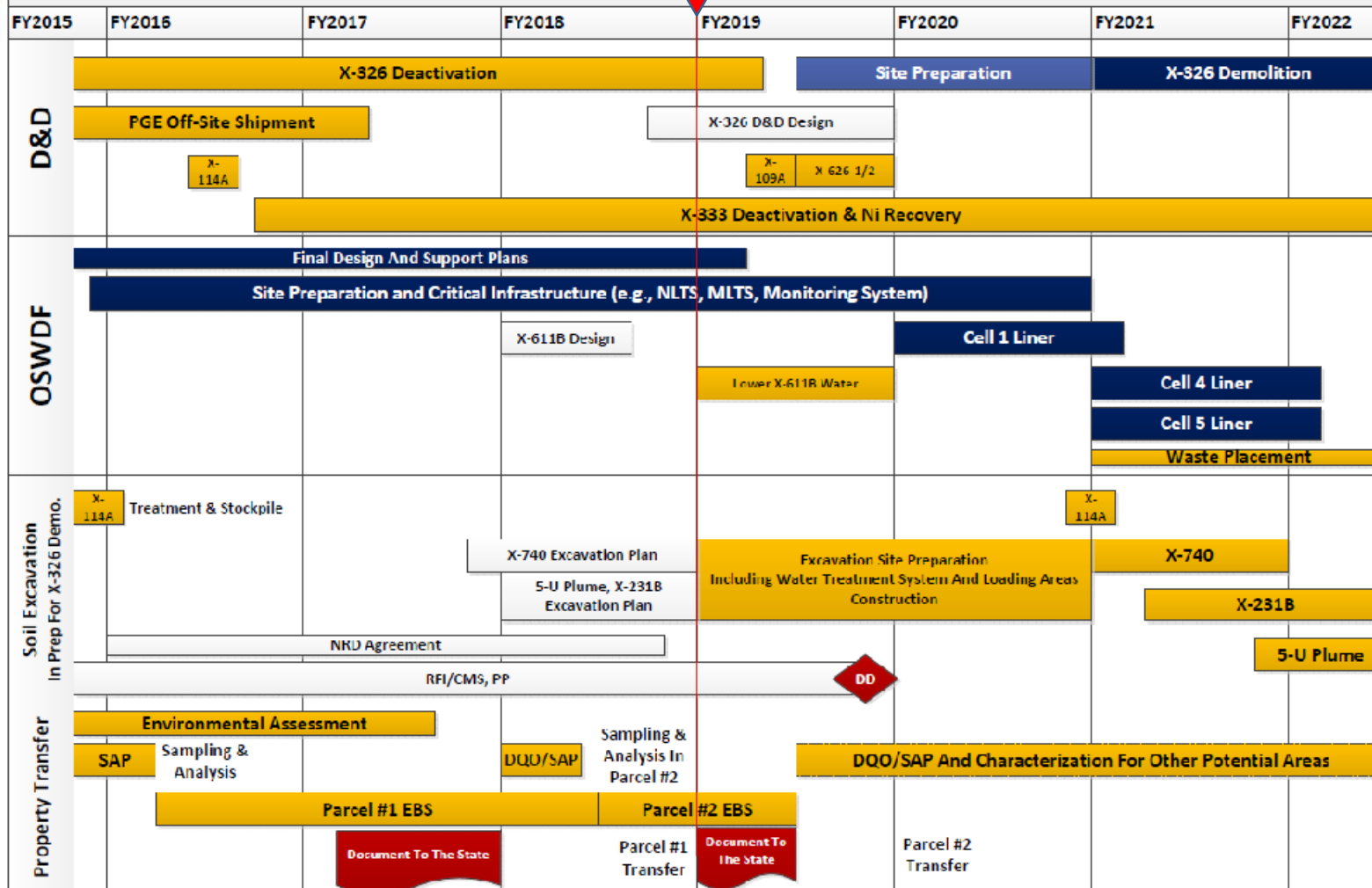
*Sustainability – maintain strong stewardship of the PORTS natural, cultural and economic resources and continuously improve environmental performance.*





# PORTS Integrated Baseline

September 26, 2018







# D&D Progress – X-326 Deactivation





# D&D Progress – X-326 Deactivation - Asbestos Removal



Using a scissor-lift, employees reach up to cut fiberglass insulation loose and pass it to workers below who bag it for disposal.



Project workers bag some of the fiberglass insulation for disposal.



Once cut, sections of fiberglass insulation are quickly removed.



# D&D Progress –

## Establishing Remote Access Control to the Wellfields



↑ An Engineer programs the control panel at the X-611

← Workers at the X-6609 install one of the VFD panels

The X-608 transformer and substation platform →





# D&D Progress – Renovations in the XT-801





# D&D Progress – X-333 Deactivation





# OSWDF CONSTRUCTION-



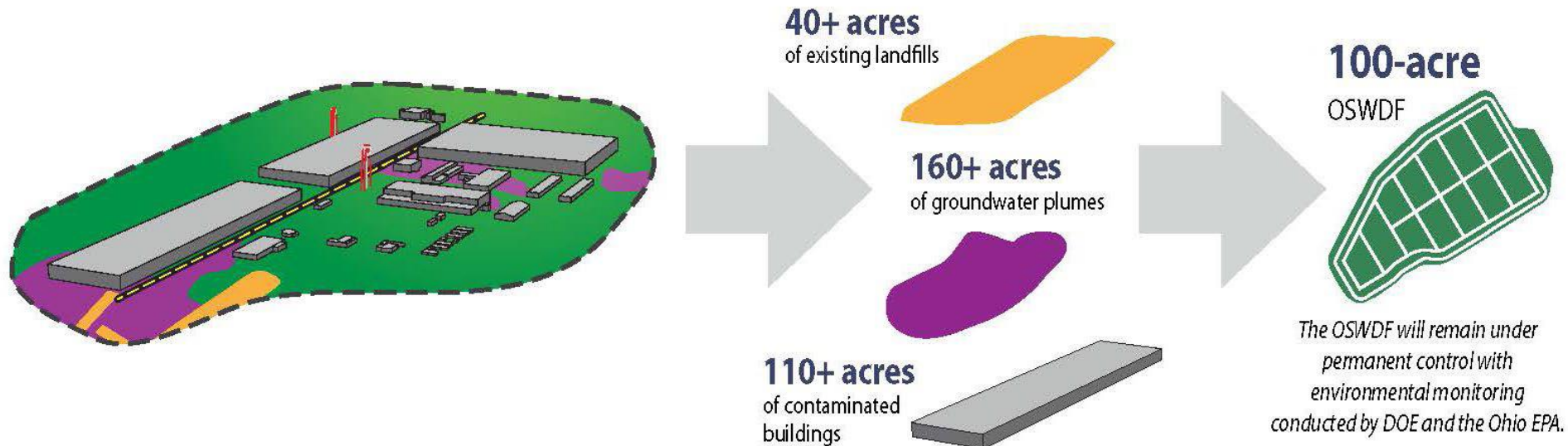


# First Plume Excavation Project

One of the first groundwater plumes to be addressed includes the X-740 (western side of the plant).



## Consolidating demolished buildings, landfills and plumes into OSWDF



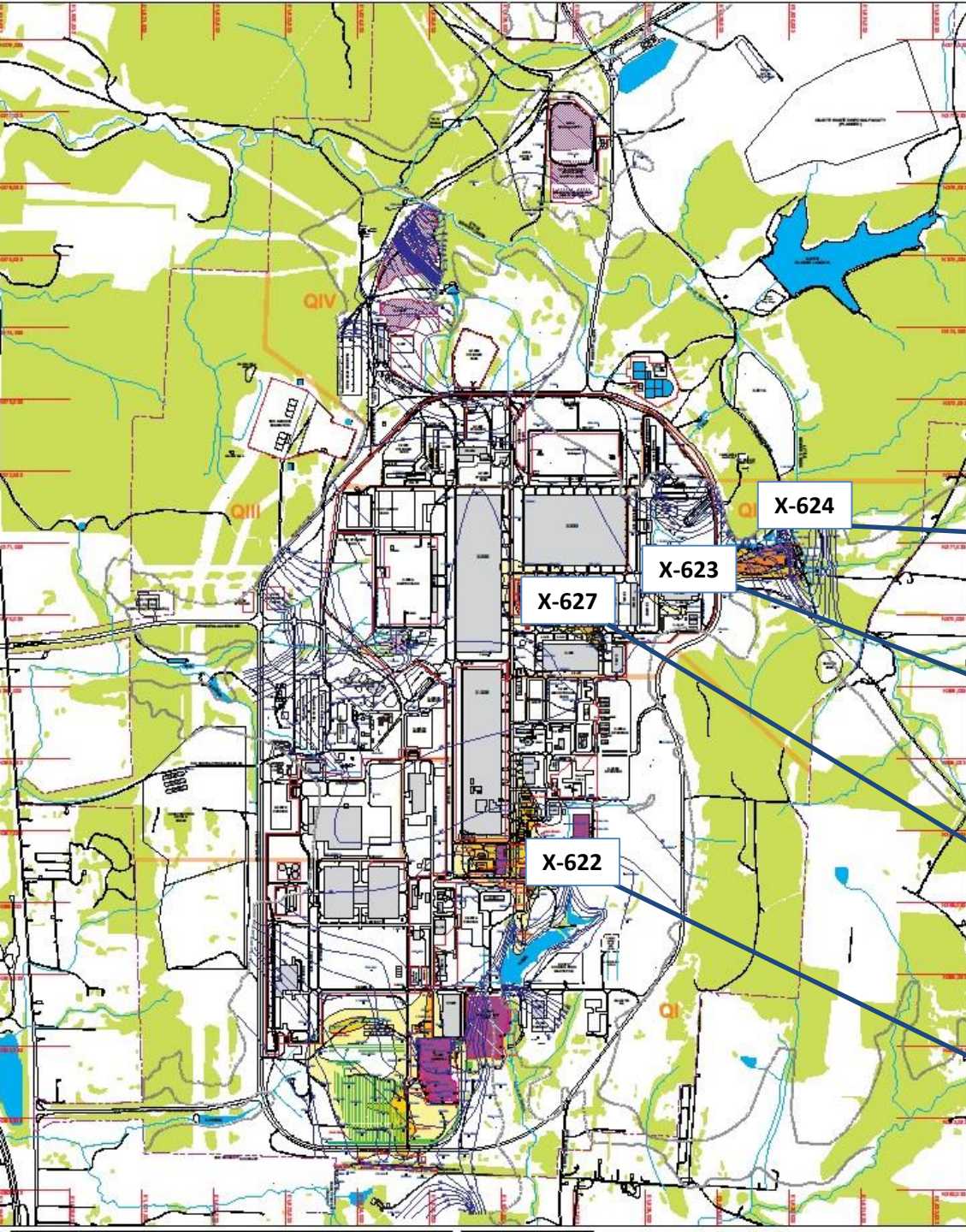


# Groundwater Cleanup





# Groundwater Cleanup



Groundwater Treated FY19- Through October 2018	Groundwater Source	TCE Removed FY18- lbs.
Gallons 41,700	X-701B Plume	0.28
Gallons 6,150	Misc. Site	0.00
Gallons 864,100	7-Unit Plume	11.52
Gallons 1,895,600	5-Unit & X-749/ X-120 Plumes & PK Drainage	1.43



# Depleted Uranium Hexafluoride (DUF6) Conversion Plant Update





# Federal Project Director's Site Tours





# Mutual Aid CY2018 -

## PORTS Paramedics Utilize Their Life-Saving Skills

Off-Site Requests  
Jan 1, 2018 –  
Nov 20, 2018

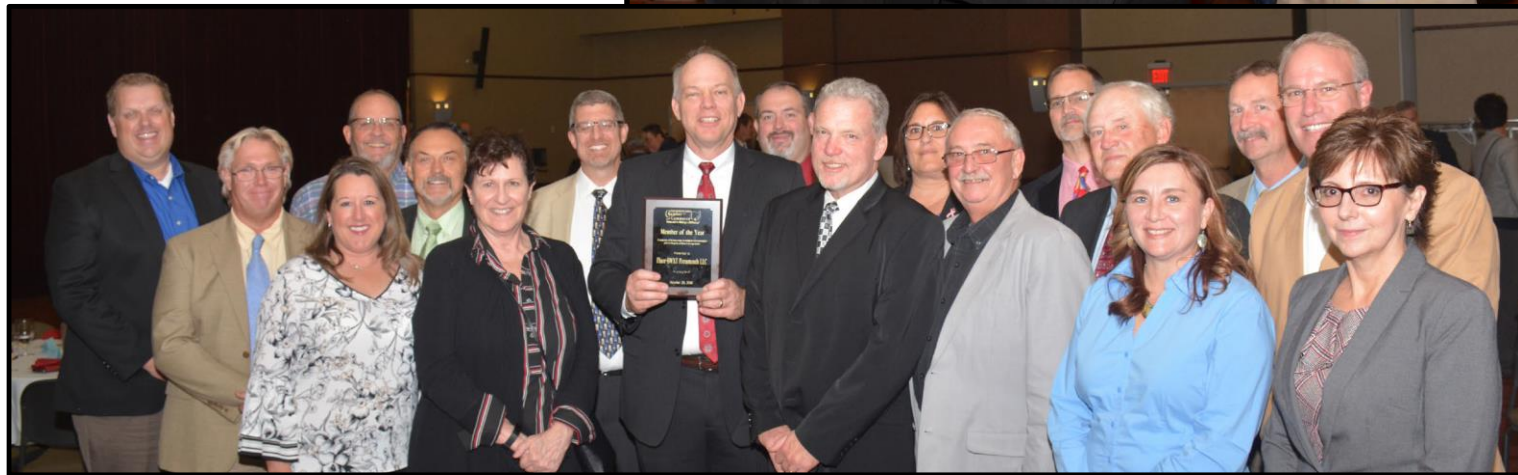
Vehicle Accidents	12
Structure Fires	15
Other Fires	7
HazMat Response	3
Medical	46
Total	83





# Economic Development –

**Fluor-BWXT Named 2018  
Member of the Year by  
Portsmouth Area  
Chamber of Commerce**





# Educational Outreach



Eastern Elementary School's  
3<sup>rd</sup> grade technology class





# Community Outreach



**Christmas Gifts  
for Children**



**Honoring our Veterans**



**Employee Giving Campaign  
Raises over \$100,000**



**Ports Pink Out Day raises over  
\$3,500**



**Care Packages for Veterans**



# Upcoming Outreach Events



**Fluor-BWXT Portsmouth Internship Application**

**Deadline January 10, 2019**

**Website -[Fluorbwcareers.silkroad.com](http://Fluorbwcareers.silkroad.com)**

**For questions contact HR Staffing at 740-897-2022**



**SSAB Full Board Meeting**

**Thursday, February 7, 2019**





U.S. DEPARTMENT OF  
**ENERGY**

OFFICE OF  
**ENVIRONMENTAL  
MANAGEMENT**

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## **X-326 DEACTIVATION & DEMOLITION UPDATE AND FUTURE MILESTONES**

Jud Lilly, U.S. Department of Energy

Portsmouth/Paducah Project Office

December 6, 2018

# D&D Project Status

## PORTS D&D PROJECT STATUS

Deactivation Underway



1-30%



30-60%

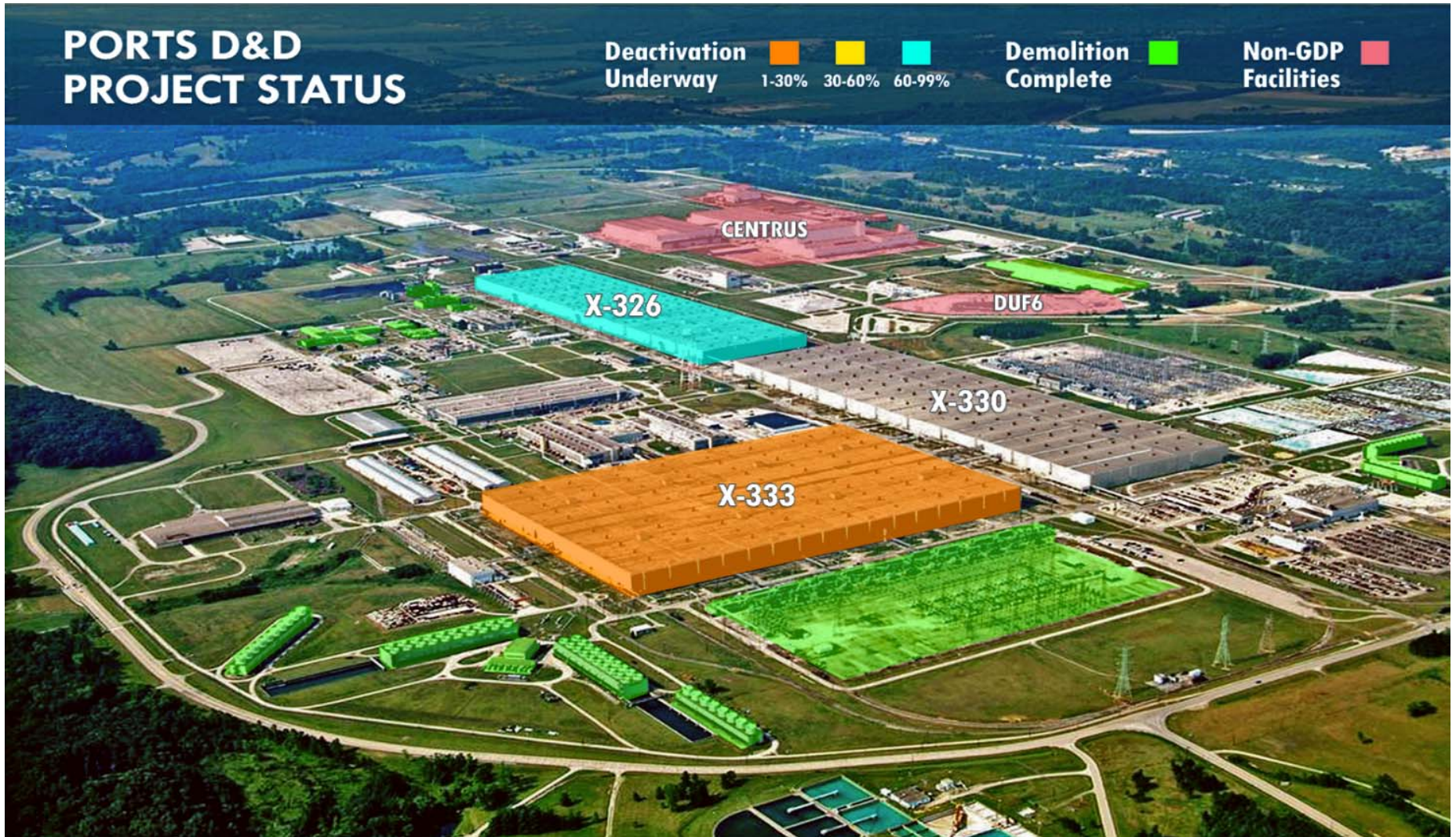


60-99%

Demolition Complete



Non-GDP Facilities



# X-326 Process Building

- Record of Decision for “controlled demolition” of Portsmouth GDP facilities issued in June 2015
- ~1/2-mile long
- 30-acre roof
- 2.6M ft<sup>2</sup> of floor space
- Last building of Portsmouth cascade
- Produced highest levels of enriched uranium
- Deactivation Goal: ‘Cold & Dark’
  - More than 7,000 process components removed and shipped off site
  - RCRA waste removed and RCRA permit closed
  - Downgrading facility from a Category 2 Nuclear Facility
  - Building fully characterized



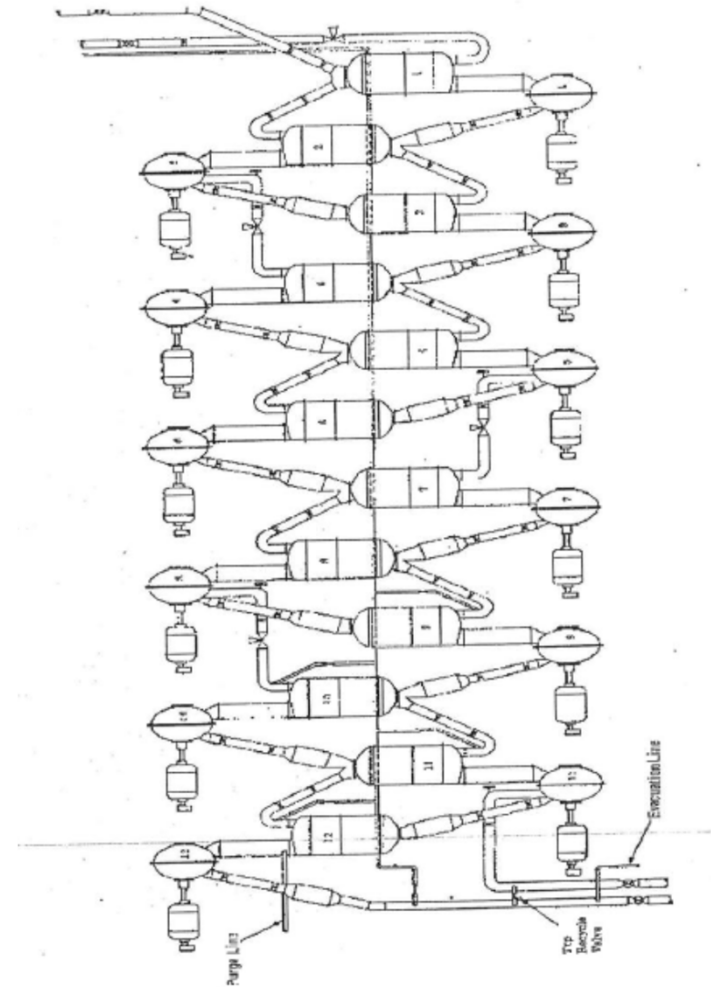
# X-326 Deactivation Accomplishments

- More than 7,000 large components administratively prohibited from on-site disposal and were shipped for burial
- Materials and chemicals that did not meet the OSWDF Waste Acceptance were removed from the building and shipped off-site for disposal



# X-326 Deactivation Accomplishments

- **Non-Destructive Assay (NDA)**
  - Measurement and characterization of residual fissile material in pipes, equipment and components
    - Measurement of over 1.3 Million items to appropriately characterize the building
- **Cut & Cap Activities**
  - Remove process gas components
  - Based on NDA results, remove Process Gas Equipment (i.e., piping, valves, lines) to achieve Criticality Incredible condition and to support “cold and dark” status
    - Cell Floor 100% complete
    - Operations Floor in progress
- **Waste Management**
  - Disposition legacy & waste/material generated by the D&D project.
    - Waste dispositioned in compliance with waste disposal rules to allow X-326 downgrade to < HazCat 3
- **Bulk Asbestos removal under way**
- **Demolition Planning in process**
  - Demolition Plan scheduled for delivery to Ohio EPA in Spring 2019



Typical X-326 Equipment Layout

# Demolition Sequencing

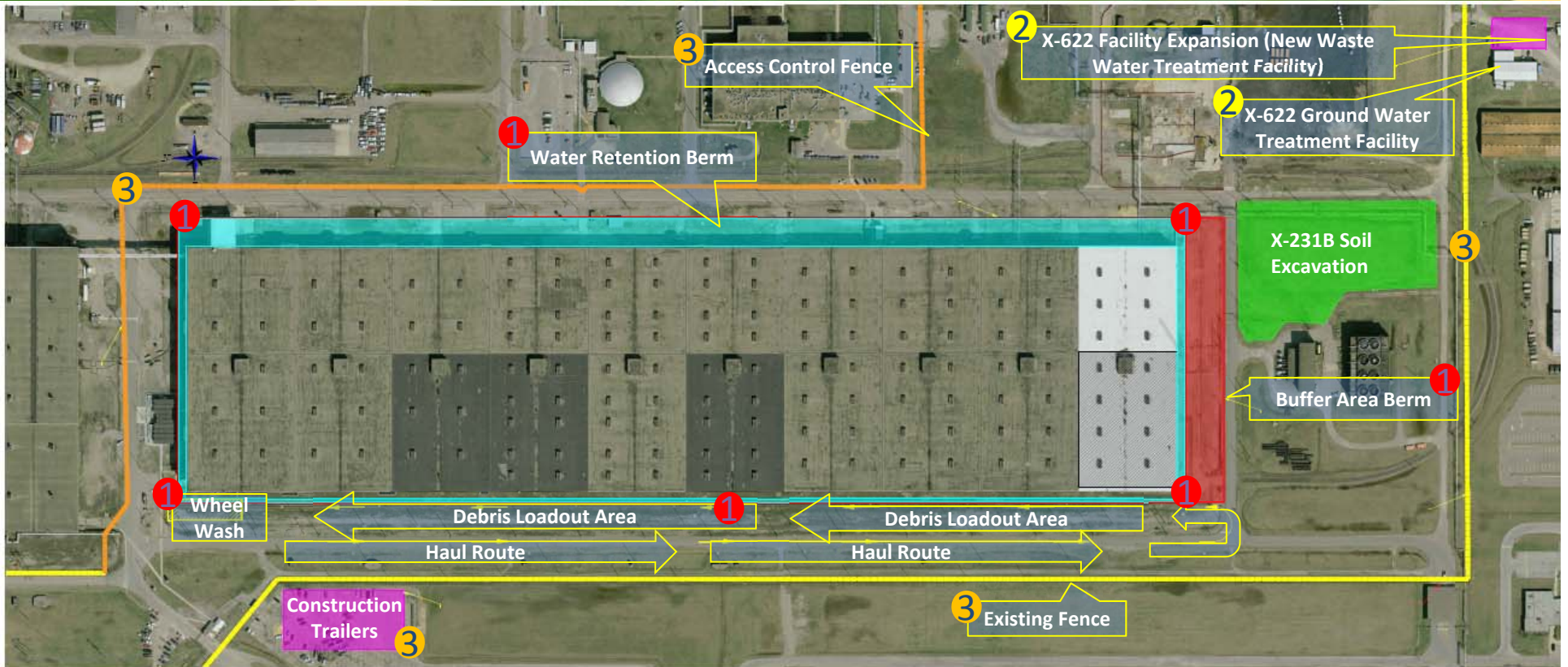
- Installation of fencing and demolition support facilities and utilities
- Removal of above grade structures and pads around building
- Installation of perimeter liner, berm and water collection/treatment system
- Sealing building concrete penetrations
- Cleaning and applying fixatives inside the building

- 
- Transite siding removal

- 
- Controlled demolition of building starting from the south end working north., dismantlement, size reduction, verification of waste, and loadout
  - Equipment decontamination and project demobilization



# X-326 Initial Demolition Infrastructure



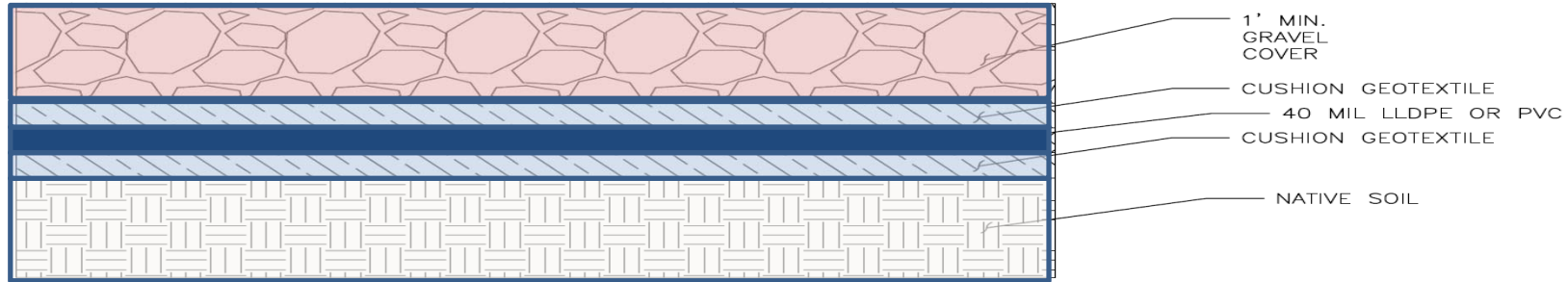
- 1** Water Collection System
- Water Retention Berm
  - Buffer Area Berm
  - Collection Sumps
  - Transfer Pumps
  - Piping
  - Load Out Road
  - Wheel Wash Station

- 2** Water Treatment System
- Tankage, valves, piping, & controls
  - Discharge Line
  - Outfall Line

- 3** Infrastructure Support Facilities
- Access Control Fencing
  - Maintenance Area
  - Temporary Utilities
  - Perimeter Monitoring System
  - Construction Access Trailer
  - Construction Mgmt Trailer
  - Break Trailer
  - Shower-Change Trailer
  - Donning/Doffing Trailer

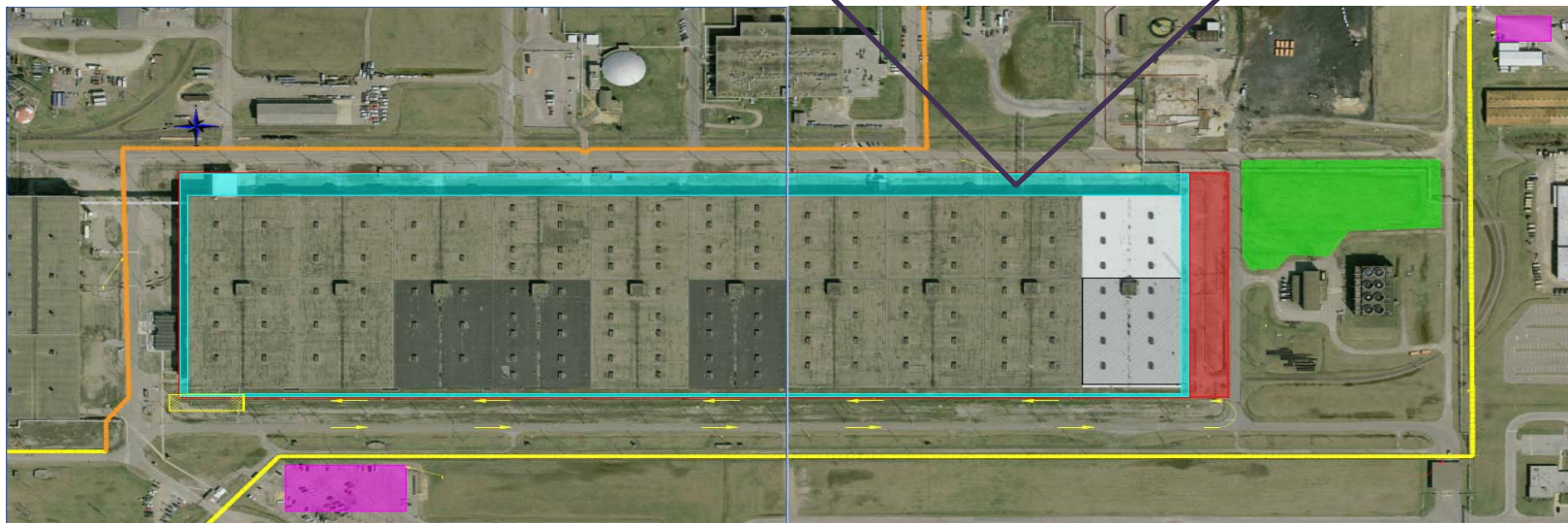
- 4.** Remove Area Obstructions
- Tie Lines
  - Utilities Pipe Racks
  - Portal Structures
  - Fuel Tanks
  - Power Poles
  - Underground Utilities

# X-326 Demolition Water Treatment



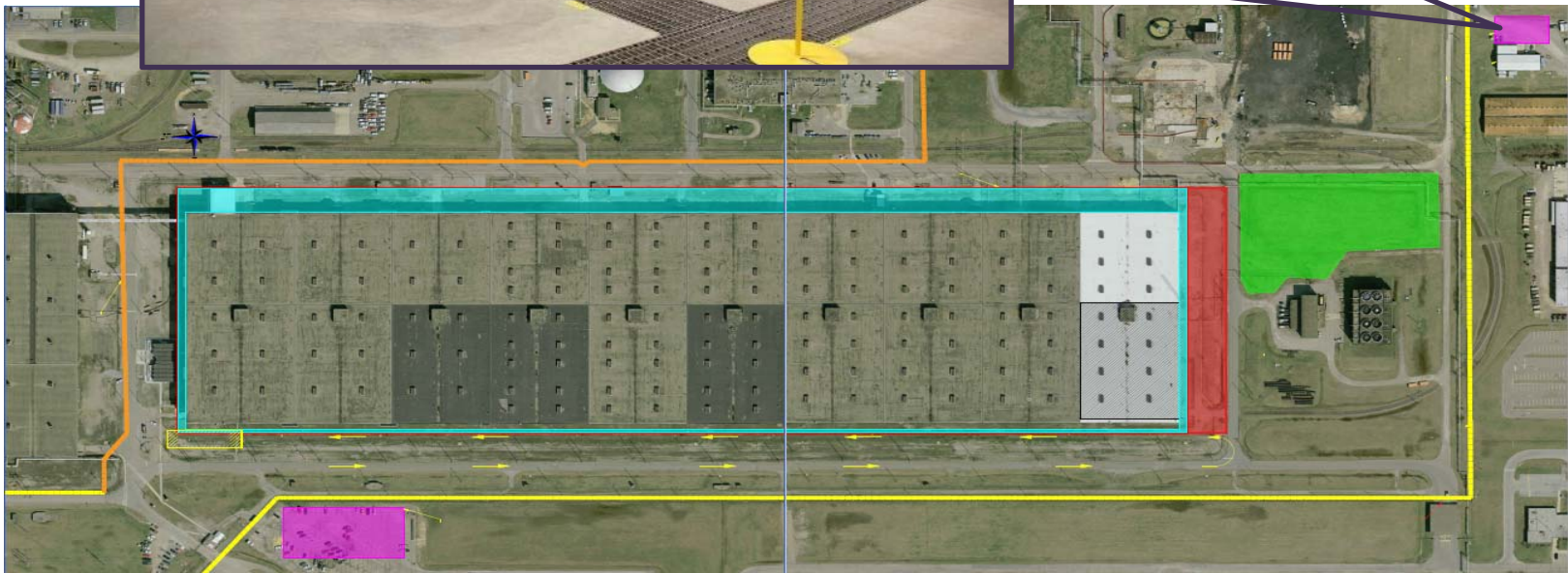
3  
C-XX12

TYPICAL LINER SECTION  
NTS





# X-326 Demolition Water Treatment



# X-326 Demolition Requirements

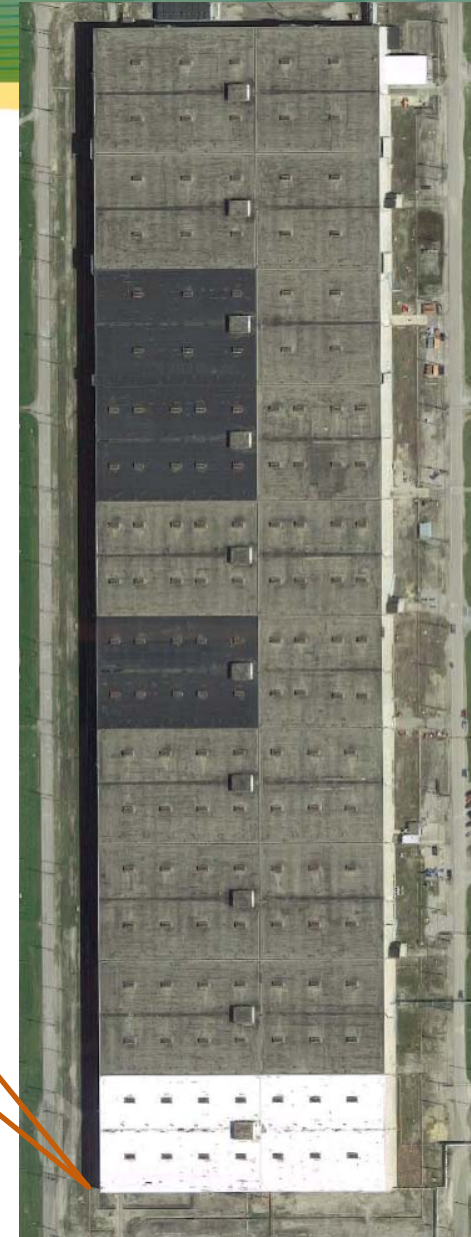
- Demolition of hazardous facilities has occurred at PORTS, including
  - X-770 (Mechanical Testing Building)
  - X-760 (Chemical Engineering Building)
  - X-633 & X-630 (Cooling Towers)
  - X-624-1 (Decontamination Pad)
  - X-600 (Steam Plant)
  - X-106 (Tactical Response Building)
  - X-101 (Dispensary Building)
  - X-102 (Cafeteria)
  - X-100 Complex (Administration Building)
- Characterization will be fully completed
- Independent verification at debris loading
- Some material processing will need to occur during demolition to meet the requirements of the OSWDF Waste Acceptance Criteria, such as:
  - Size reduction of piping and equipment to meet size requirements
  - Ensuring no free liquids



# X-326 Demolition Work



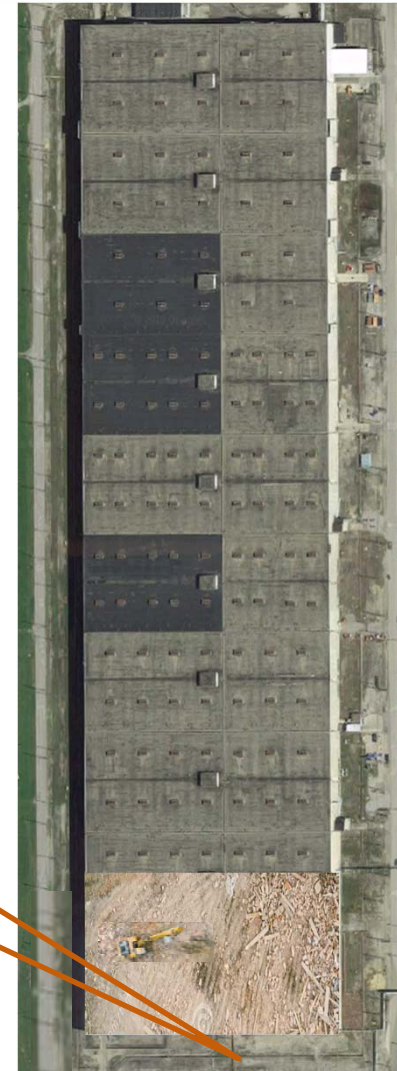
- Water retention berm and air monitoring network will be in place
- Transite from three units will be removed
- Demolition will start on the southwest corner of X-326



# X-326 Demolition Work



- Once the first unit of the south end is cleared, demolition will progress moving north
- Water misting, dust suppression and fixatives will be used for airborne control



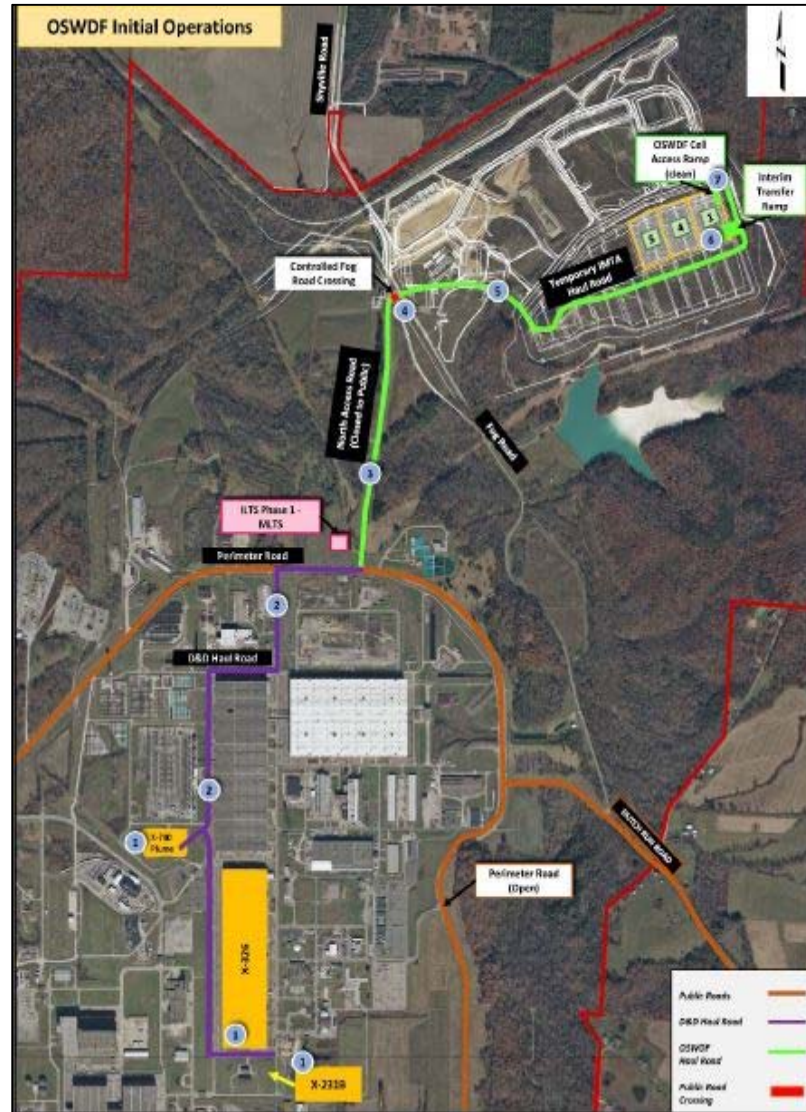


- Airborne dust and contamination controls will be in place to ensure that no unacceptable materials are released from the demolition zone
  - A protective and exclusion boundary will be established around the entire facility
  - Continuous air monitoring around the entire demolition boundary will occur
  - Water suppression and fixative application will be used to control demolition releases
  - Water will be collected and treated

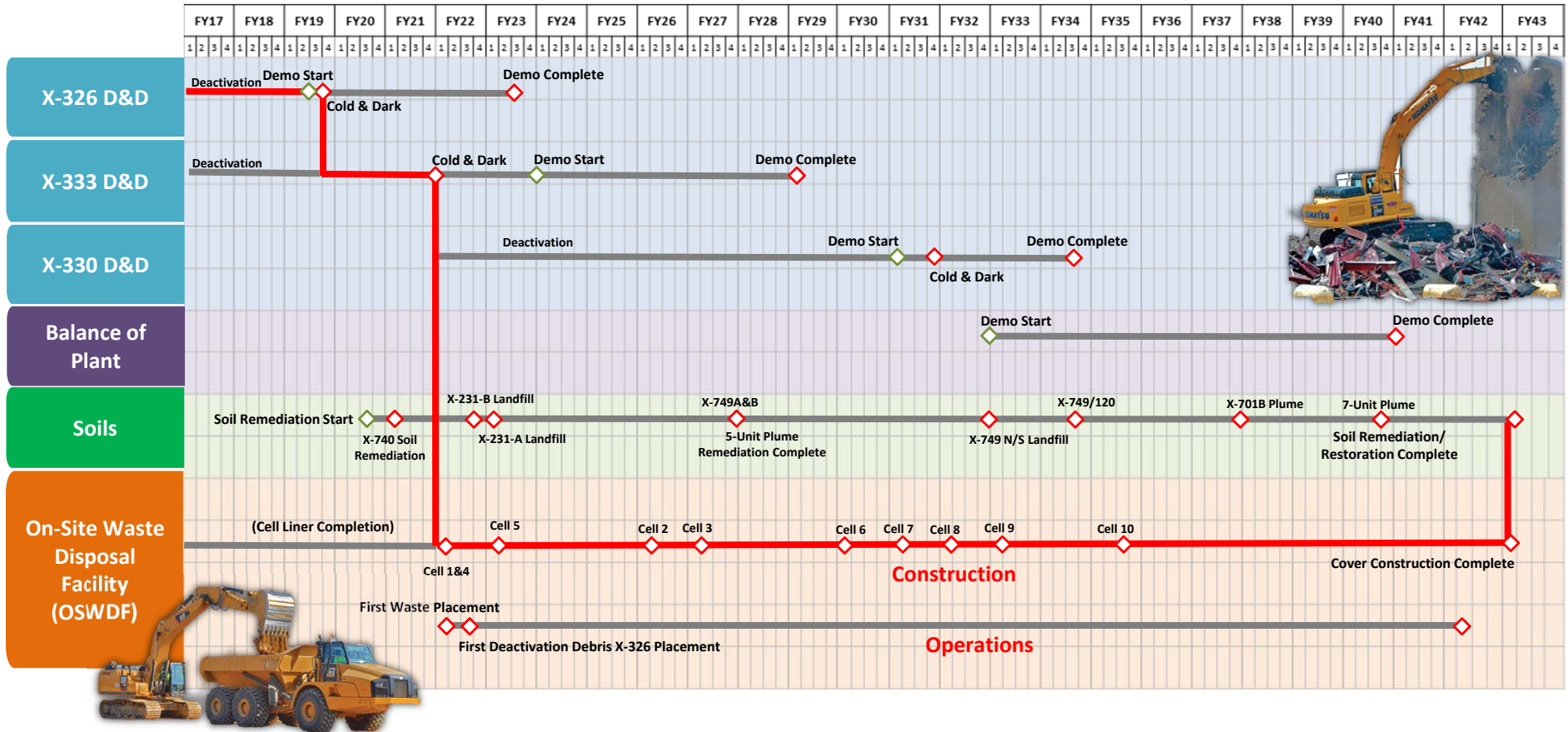


- Large construction equipment will be used in Demolition Exclusion Zone
- Equipment will be monitored by spotters and flaggers to ensure worker safety and protect environmental controls built into the Demolition Zone

- Numerous controls are in place to safely complete the disposal of the demolition debris
  - Full boundary air and water monitoring at OSWDF
  - The full control set as part of the OSWDF design
  - Full air monitoring and surveys of the “Haul Road”



Out-years





# Questions/Comments