

# Columbia Risk Reduction & Environmental Update NRC Public Meeting

February 4, 2021

# Leaving a new legacy: One of environmental excellence

- Path Forward:
  - Execute our Environmental Excellence Plan and Global Manufacturing Strategic Priority
  - Comprehensively address all legacy issues; leave no questions
  - Continue to implement future-focused strategies based upon industry best practices
  - Foster a culture of transparency and doing the right thing
  - Build productive relationships with our community and key external stakeholders
- While we address our legacy issues, we are building a culture that will achieve and sustain environmental excellence:
  - Conceptual Site Model/Extensive monitoring strategy
  - Remediation Strategy document
  - Investment in people, systems, and equipment
  - Leveraging experts
  - Intrusive management engagement and critical oversight



# Risk Reduction

- Implement Environmental Recovery/Consent Agreement Plan Actions
- Implement Remediation Strategy Document
- Improve Items Relied on for Safety Margin
- Reduce Collective Radiation Exposure
- Industrial Safety and Fire Program Improvement Plans
- Investment in Environmental Health & Safety (EHS) Systems and Equipment

Our new site leaders, corporate leaders, and owners are setting a clear tone and new standards of excellence for Environmental Health & Safety performance, and risk reduction



# Environmental Improvements

- Eliminated sources of potential stormwater contamination from retired roof equipment
- Eliminated 100% of Sealand container storage containing radioactive materials
- Eliminated use of PCE in the solvent extraction process and disposed of bulk solvent mixture
- Eliminated Plating Room and its Scrubber
- Eliminated Chemistry Laboratory Scrubber
- Eliminated old Spiking Station design risk
- Completed wastewater treatment plant chlorination upgrades
- Added dedicated URRS department manager
- Completed extensive Fire Protection upgrades - Fire Brigade certified as a Fire Department

# Environmental Risk Reduction Activities

Roof Equipment - Before



Roof Equipment - After



Sealands



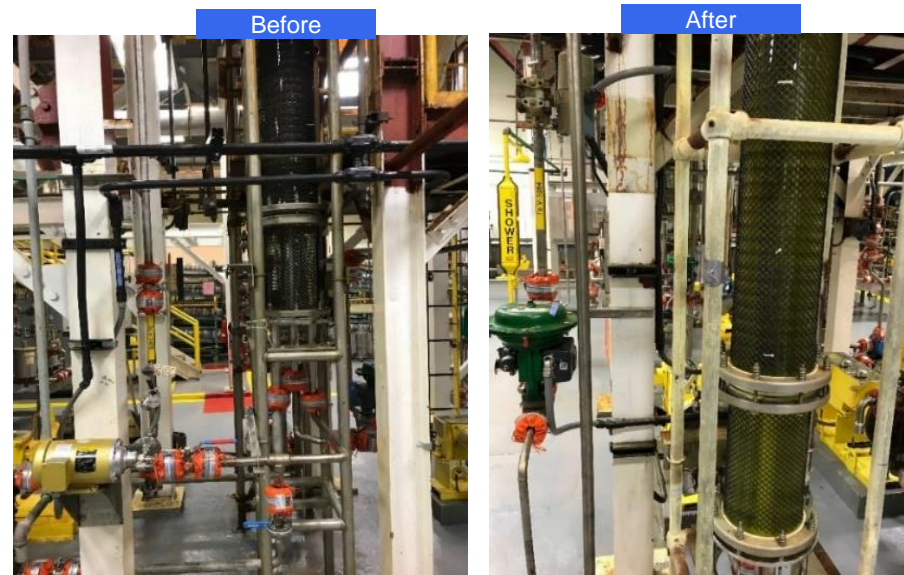


# Environmental Risk Reduction Activities

## Elimination of Perchloroethylene

***We have eliminated the use of Volatile Organic Compounds used in uranium recovery operations***

- Completed shipment and disposal of bulk solvent containing perchloroethylene (PCE)
- Modified uranium recovery process in service May 12, 2020
  - New process uses Dodecane
  - Eliminated the need for PCE
- Off-loaded remaining Sealands containing drums with residual PCE
- Created storage locations for PCE drums pending EPA-approved disposition strategy



# Future Environmental Improvement Activities

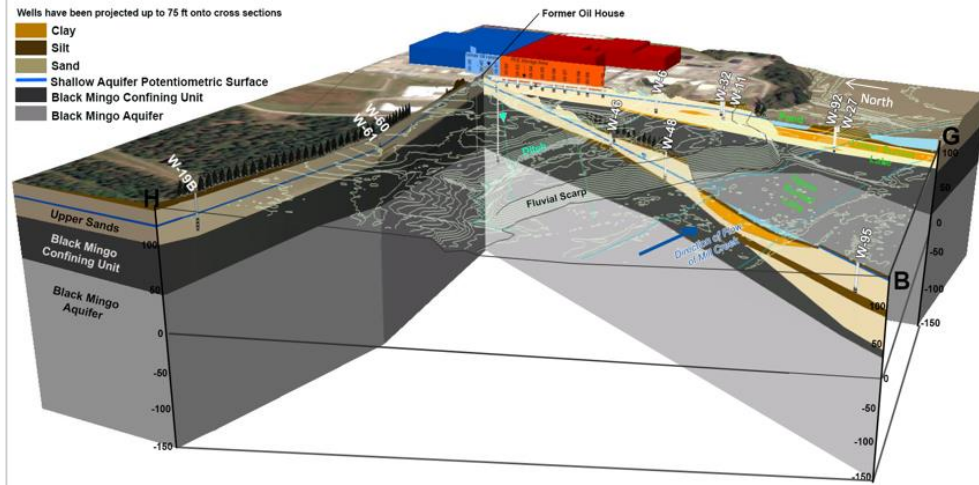
- Complete Spiking Station #1 modifications/floor upgrade (March 2021)
- Complete Sanitary Lagoon Sludge characterization to determine closure method (April 2021)
- Remediate & close the East Lagoon (June 2021)
- Complete planned sitewide remedial investigation in accordance with SC DHEC Consent Agreement (June 2021)



# Remediating Legacy Issues

- DHEC Consent Agreement - signed on Feb 26, 2019
  - Conceptual Site Model
  - Communication Protocol
  - Work Plans/Routine Meetings
  - Phase I RIWP completed
  - Phase II RIWP began in November and continues through June 2021

## Site CSM Block Diagram – Geology



Conceptual Site Model Rev. 1a



We are Here



Comprehensive CA signed with SCDHEC to address historical impacts following the CERCLA process and to promote the involvement of the local community and other key stakeholders



# Communications & Community Engagement

**Westinghouse**

**COLUMBIA FACTS & INFORMATION**

Westinghouse Electric Company is a leading global supplier of safe and innovative nuclear technology. We provide our utility customers around the world with reliable and dependable nuclear power plants, nuclear fuel, spent fuel services and operating plant products and services. We are driven by our powerful history and experience, groundbreaking ideas, focus on safety and sustainability, and our strong team of approximately 8,000 employees around the world.

**50 YEARS OF WESTINGHOUSE IN SOUTH CAROLINA** | **1,100 EMPLOYEES**

**ABOUT 10 PERCENT** OF U.S. ELECTRICITY COMES FROM NUCLEAR FUEL MANUFACTURED BY WESTINGHOUSE IN SOUTH CAROLINA.

Westinghouse has a long history of operations in South Carolina - dating back to the 1969 opening of the Westinghouse Columbia Fuel Fabrication Facility (CFFF) in Horry, just outside of Columbia. Today, CFFF is one of the largest facilities of its kind in the world.

The site houses fuel manufacturing facilities, product engineering and testing laboratories, as well as fuel marketing and contract administration. It covers 1,100 acres that include 500,000 square feet of manufacturing and office space.

Nuclear power plants produce about 20 percent of electricity generated in the U.S. About 10 percent of U.S. electricity comes from nuclear fuel manufactured by Westinghouse at CFFF.

From our beginning, when the first fuel components were produced and shipped from CFFF, we have created a legacy of quality performance and products. Westinghouse is committed safety, quality and meeting customer needs and expectations as we strive to be the industry's most responsive supplier of fuel, value-added fuel products and services.

**Additional Resources**

- Westinghouse in the Community  
[Read More](#)
- Upcoming Public Meetings  
[Read More](#)
- Nuclear Regulatory Commission (NRC) and Westinghouse  
[Read More](#)
- South Carolina Department of Health and Environmental Control (DHEC) and Westinghouse  
[Read More](#)

**Westinghouse**

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- **Columbia Fuel Fabrication Facility Website**
  - Source of publicly available information for ease of use
  - <http://www.westinghousenuclear.com/columbiacommunity>
- **Dedicated Communications and Community Resources**
  - We have resources located at the Columbia Fuel Fabrication Facility dedicated to engaging and managing community relations

# Summary

- The Columbia facility has been transformed from an environmental perspective over the past two years
- We are implementing a sustainable culture change that influences all aspects of our performance
- We are rooting this change in a culture of strong self-identification, doing the right thing regardless of how hard it may be and, transparency with all stakeholders
- Reinvigorated corporate oversight and support to ensure we remain on track and drive sustainable change

**Focused on leaving a legacy of  
environmental excellence**