



U.S. DEPARTMENT OF
ENERGY

OFFICE OF
**ENVIRONMENTAL
MANAGEMENT**

Main Plant Process Building (MPPB) Demolition at the West Valley Demonstration Project

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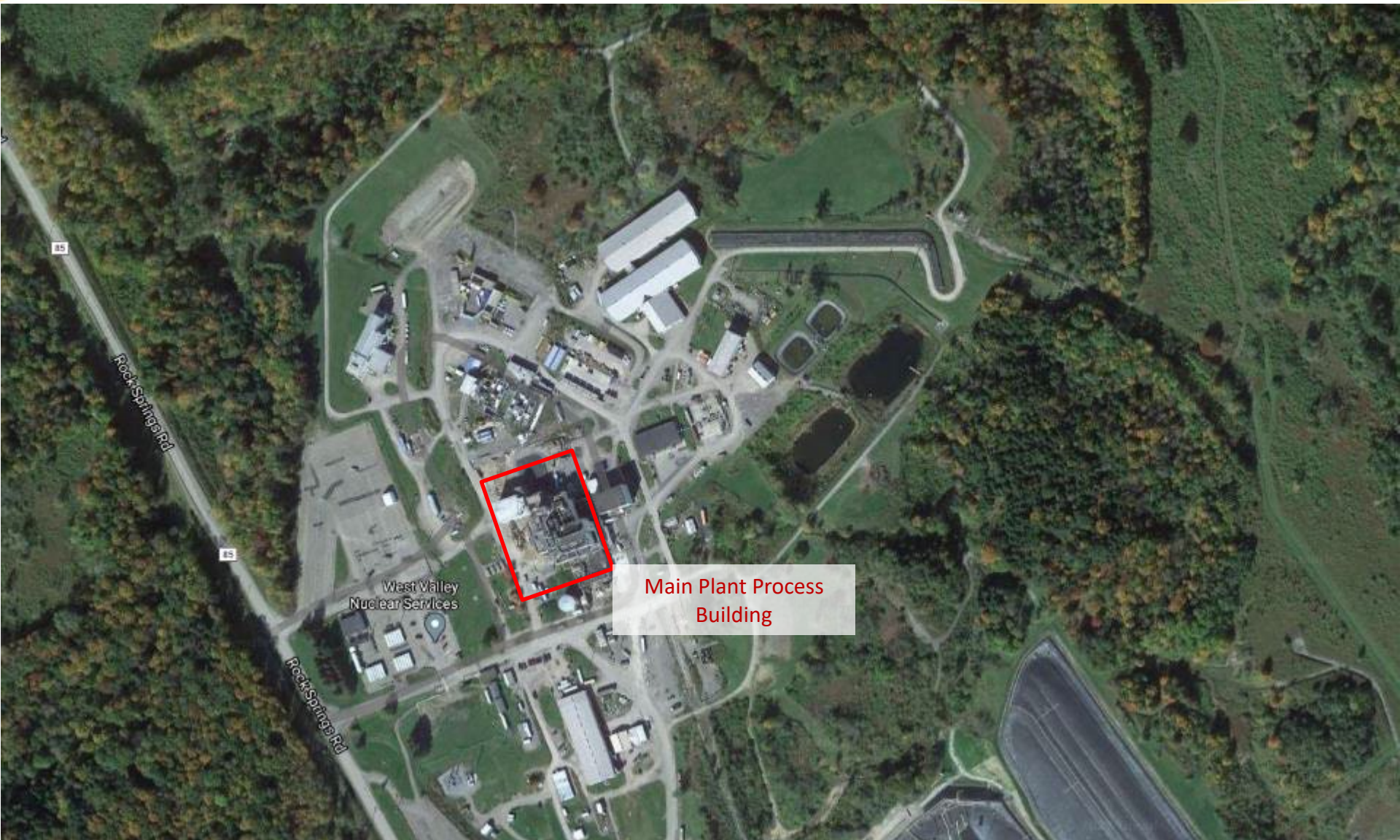
President and General Manager

MPPB Deactivation/Demolition Overview

- We plan to begin demolition of the Main Plant Process Building (MPPB) at the West Valley Demonstration Project (WVDP) this year
- Worker and community safety is our top priority
- The demolition of the MPPB is an important step in reducing overall environmental risks from historic site activities and the footprint of WVDP
- Our approach to MPPB demolition is safe, and in accordance with all state and federal regulations.
- Our demolition approach ensures the protection of workers, the public, and the environment
- Our approach incorporates best practices and lessons learned from across the DOE complex including the use of deliberately planned and sequenced demolition and implementation of robust work controls

Planning and preparation for MPPB demolition has been ongoing for over two decades; worker/public safety and compliance are foremost in planning efforts.

Aerial View of WVDP



Workers are close to completing MPPB deactivation and decontamination

- Operators have been working for over two decades to remove materials and contamination from the MPPB
 - More than **7 MILES** of contaminated piping and **50 TONS** of contaminated equipment and debris have been removed from the MPPB
 - This has **REDUCED** the building's total inventory of radiologically contaminated material by **98%**

- To date, deactivation is **COMPLETE** in all MPPB areas (over 70 rooms/cells) except for:
 - Product Purification Cell-South
 - Ventilation Wash Room
 - Off-Gas Cell
 - Acid Recovery Cell

- Deactivation expected to be completed later this Fall (subject to change due to COVID-19 impacts)



Extraction Cell-1 Before Deactivation

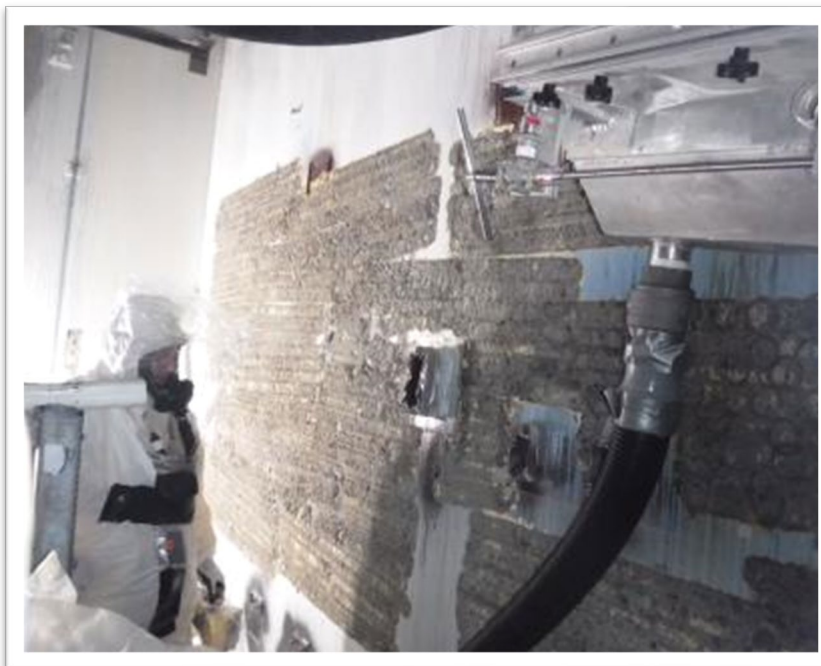


Extraction Cell-1 After Deactivation

Operators continue decontamination of a few remaining cells

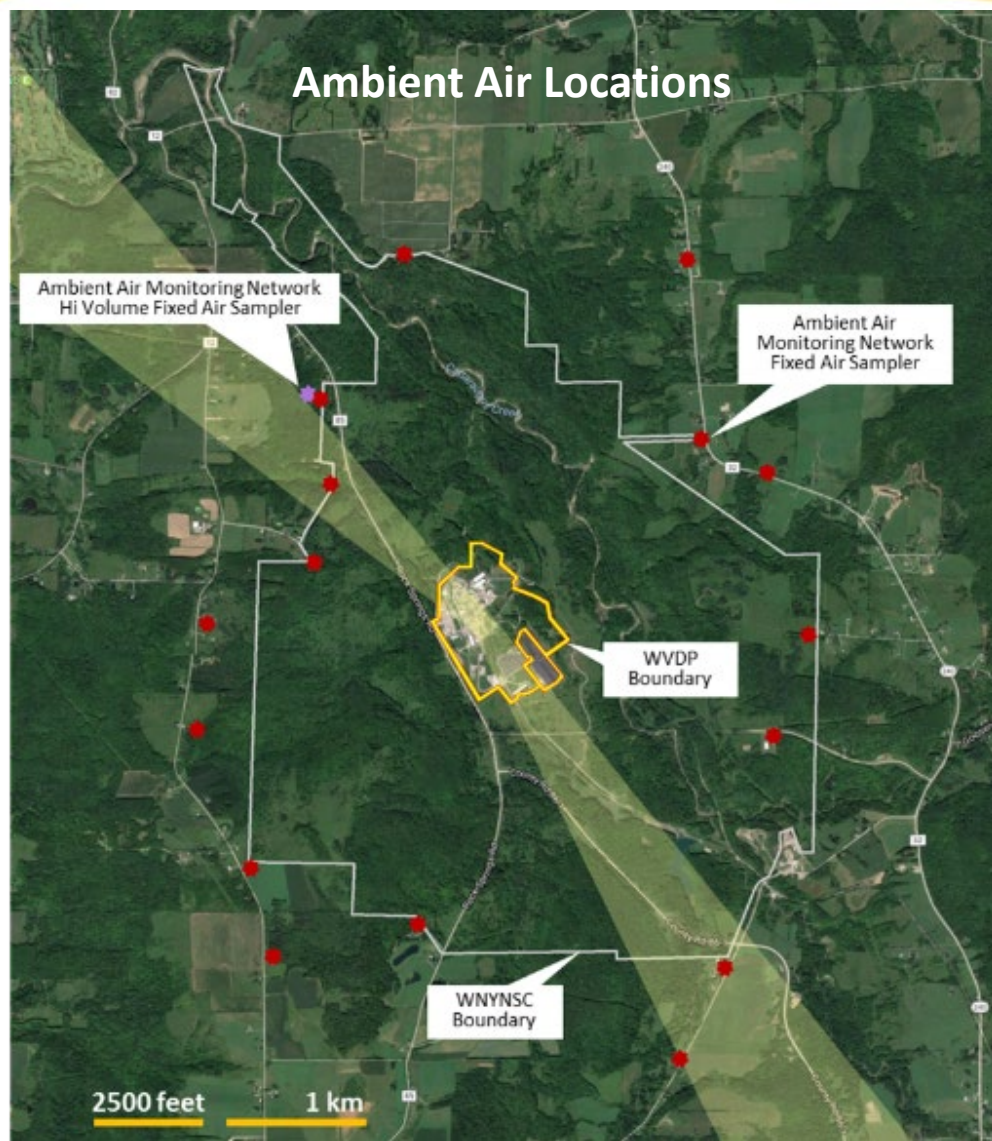
Aggressive decontamination continues in the Product Purification Cell

- Decontamination needs to be completed prior to the start of MPPB Demolition
- This decontamination will further reduce the remaining inventory by another 30%



Radiological surveys are taken on the south wall of the PPC-S, after decontamination

WVDP Air Monitoring

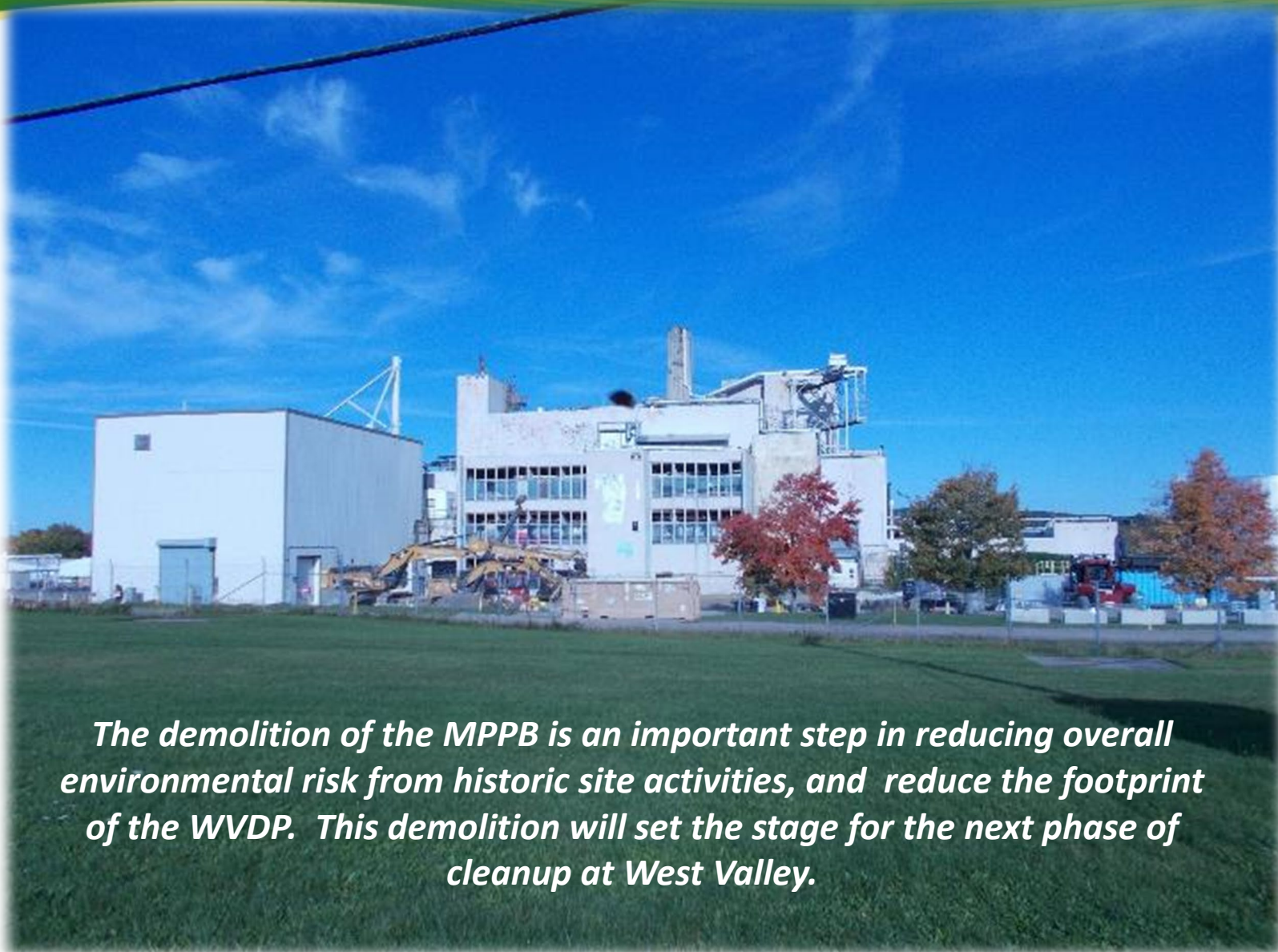


- WVDP has deployed the best technology in consideration of the overall purpose and detection for demolition
- Continuous air monitors placed close to demolition site
- Fixed air samplers placed near demolition area
- Ambient air samplers surround the site, about one mile from demolition area

MPPB Deactivation/Demolition Summary

- Radiological contamination removal has been aggressive and effective
 - Some work remains, to include decontamination in PPC-S utilizing Nitrocision® technology (briefed in the November 2020 QPM)
- Areas thoroughly characterized to support final work plans
- Radioactive materials that remain are being stabilized to minimize the potential for release
- A demolition boundary has been established based upon predictive modeling to maintain worker doses are “As Low As Reasonably Achievable” and well under regulatory limits
- On-site monitoring maintains worker protection
- Predictive air dispersion modeling demonstrates compliance with EPA standards; estimated public dose is significantly lower than regulatory standards
- Network of off-site air monitors, in place prior to and throughout Vitrification Facility demolition, have been demonstrated to effectively monitor public dose

WVDP continues to coordinate with regulatory agencies and will be providing characterization and dose modeling information as it becomes final.



The demolition of the MPPB is an important step in reducing overall environmental risk from historic site activities, and reduce the footprint of the WVDP. This demolition will set the stage for the next phase of cleanup at West Valley.