



# Demolition of the Brookhaven Medical Research Reactor (BMRR) Stack - Update

Community Advisory Council Meeting

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September 8, 2022



# Background & Project Scope

## Background

- The Stack was constructed in 1958 to discharge air emissions from the former Brookhaven Medical Research Reactor (BMRR), which was the first reactor in the nation to be constructed specifically for medical research.
- The BMRR was shut down permanently on December 28, 2000.
- The Stack is 150-feet tall and constructed of radial brick; with no interior or exterior coatings.

## Project Scope

- Demolish the Stack using manned hydraulic tools to the top of the foundation, radiological survey of the foundation, applying a fixative (if necessary), and waste transportation and disposal.

## Project Cost

- \$3.5 million (DOE-EM funded)



BMRR Stack



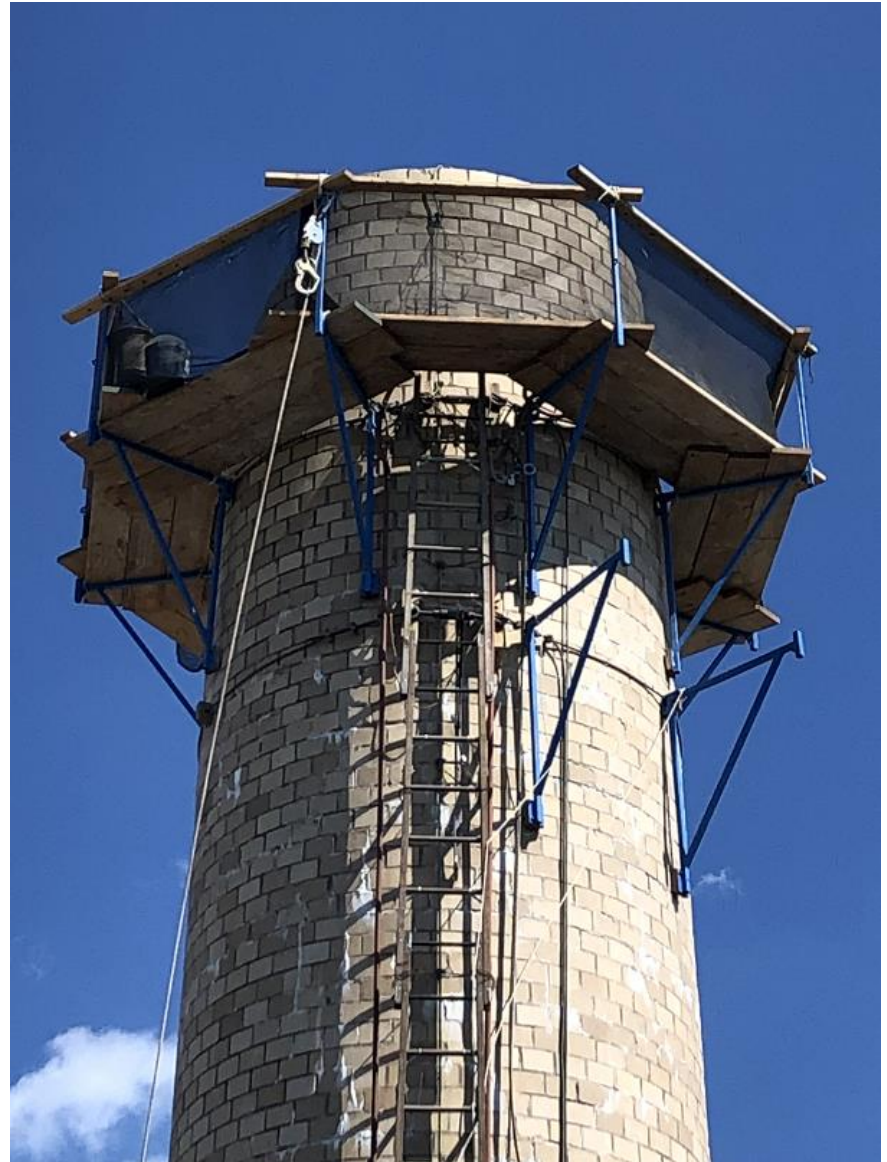
# Pre-Demolition Activities

- Approved project work plans:
  - Demolition Plan with Appendices
  - Radiation Protection Plan
  - Final Status Survey Plan
  - Community Air Monitoring Plan (CAMP)
  - Quality Assurance Plan (QAP)
  - Waste Management Plan
  - Job Hazard Analyses (JHAs)
- Placed and provided temporary power to CAMP monitoring stations
- Provided temporary power to contractor's electrical panel
- Contractor mobilized
- Established contractor work zone
- Maintained and made repairs to the on-site rail spur
- Collected pre-demolition “background” air samples



# Demolition Activities

- Demolition accomplished using manned hydraulic equipment (i.e., jack hammers)
- Demolition method was selected with the goal of minimizing the risk of personal injury, damage to equipment and property, and reducing the potential for spreading contamination
- Notice to Proceed was issued on August 7, 2022
- Demolition commenced on August 8, 2022
- The Stack was demolished to the top of the foundation by September 2, 2022
- Contractor demobilized on September 3, 2022



# “Before”





# “During”



“During”



# “During”





“During”



“After”



# Personal and Environmental Monitoring

Both Industrial Hygiene and Radiological Monitoring was performed throughout the project.

## Industrial Hygiene Contaminants of Concern: Silica

- All Silica (Worker & Perimeter) results were below the detectable limit



## Primary Radiological Contaminants of Concern: U-233/234, U-235/236, U-238, Ra-226, Th-228, K-40, C-14

- Survey results did not show any loss of radiological controls or spread of contamination
- No personnel contamination events
- Air monitoring results were consistent with pre-demo background measurements





# Next Steps

- Waste removed from site by rail
- Prepare closeout report

September - October 2022

November 2022

## Any Questions?