

SM-1 DEACTIVATED NUCLEAR POWER PLANT



U.S. ARMY



OVERVIEW

The U.S. Army Corps of Engineers, Baltimore District (USACE) awarded the contract for the Decommissioning and Dismantlement (D&D) of the former SM-1 Deactivated Nuclear Power Plant. The Project Team is made up of USACE and the contractor (A2D, LLC), a highly skilled and experienced team of engineers, scientists and contractors dedicated to the successful and safe execution of this project.

The safety and health of the community and our workers are paramount to the success of our project. During dismantling activities, trained professionals will use proven techniques and precautions to ensure the safety of workers and the public, all in accordance with federal, state and local regulations.

The Project Team is finalizing the necessary Decommissioning Work Plans and will be implementing the Decommissioning Permit which was issued by our regulatory the Army Reactor Office.

HISTORY

Construction of the SM-1 at Fort Belvoir was completed in 1957, achieving its first criticality in April 1957. It was the first nuclear power reactor to provide electricity to a commercial power grid in the United States, operating from April 1957 to March 1973. In addition to providing power to Fort Belvoir, it served as a training facility for nuclear technicians from all military branches before being partially decommissioned in the early 1970s.

Deactivation and partial decommissioning was performed on the SM-1 Reactor from 1973-1974. This initial dismantlement and decommissioning involved the removal of a majority of the radioactivity from the site, including the removal of the nuclear fuel and control rods, decontamination work around the facility, radioactive waste removal, and the sealing of the Reactor Containment Vessel which holds the Reactor Pressure Vessel and other reactor components.

FIND OUT MORE

JOIN OUR STAKEHOLDER LIST

✉ CENAB-CC@usace.army.mil

CHECK OUT OUR WEBSITE

www.nab.usace.army.mil/SM-1

QUESTIONS OR FEEDBACK

✉ CENAB-CC@usace.army.mil



COMMITMENT TO SAFETY

The safety of the community and our workers is of utmost importance to us. The facility is not an operational facility and does not have nuclear fuel or spent fuel waste stored at the facility. During the final decommissioning and dismantlement, our team of trained professionals will use proven techniques and precautions to ensure the safety of workers, the installation tenants, and the public.

Any sort of radiation release during this final decommissioning would be extremely unlikely, not only because of the nature of the materials being worked with and the safety protocols that will be in place during all work, but also because of the proven expertise and previous success of the project team.



SCHEDULE/TIMELINE

The project team is working on decommissioning planning, design, and execution and working to implement the final decommissioning strategy to start the Decommissioning efforts at the site.

30-Day Look Ahead (October 2021):

The Project Team will continue to finalize planning documents. Basic site preparations, such as installation of crew trailers and temporary site power, installation of security features, de-energizing existing utilities, geotechnical drilling, and water/sewer hookups to the office trailers, will be initiated. The Project Team will continue to work with the Fort Belvoir Directorate of Public Works and state and local regulatory agencies to obtain required permits.

60-Day Look Ahead (November 2021):

Site preparation activities will be sufficiently completed to begin decommissioning tasks. As work progress at the site, the Project team will be reversing **Totten Road** for the duration of the project. There may be times that Totten Road will be used for inboard and outbound project traffic. The Project team has purchased electronic traffic signs to provide immediate updates to the Tenants on road activities. No pedestrian traffic on Totten will be allowed for safety purposes. Wilson Road will be closed just past Bldg. 374 and the Fitness Trail near the site will also be closed. Initial D&D activities will take place, which includes asbestos and hazardous material abatement, removing historical artifacts for restoration, and aboveground storage tank removal.

90-Day Look Ahead (December 2021):

The Project Team will continue asbestos and hazardous material abatement, finish removing the historical artifacts for restoration, remove AC units, and begin removing exterior electrical equipment and performing fence and gate modifications. The project site will be left in a safe and secure position prior to a stand down for the holidays.

Over all, the project is estimated to take up to five years to complete.

A CENTER OF EXPERTISE

A highly skilled and experienced team led by the Corps' Radiological Health Physics Regional Center of Expertise, based nearby in Baltimore, is dedicated to the successful and safe execution of this project. This team brings decades of experience working on a broad array of radiological projects around the world, including prior reactor decommissioning projects. In fact, this same USACE team working on the SM-1 project just recently safely completed the decommissioning of the Army's historic floating nuclear power plant in Texas, the STURGIS and its MH-1A reactor.

This work will pose minimal risk, if any, to the surrounding community. The majority of SM-1's remaining low-level radioactivity is activated metals and the components of the reactor system that are all secured within the walls of the facility's containment vessel.

