



Wolff-Alport Chemical Company Superfund Site Brooklyn/Queens, New York

Site Description

The [Wolff-Alport Chemical Company](#) (WACC) site comprises an area of radiological contamination in Ridgewood, Queens, New York, on the border of Bushwick, Brooklyn. EPA added the site to the National Priorities List in 2014. The site includes the former WACC property, a roughly triangular area of approximately 0.75 acres, which is now subdivided into several active commercial/residential properties, as well as adjacent areas, including streets, sidewalks, and commercial and residential properties, and the sewer system where contaminants have migrated or have the potential to migrate in the future.

WACC operated at the property from the 1920s until 1954, importing monazite sand via rail and extracting rare earth metals from the material. The WACC's acid treatment process to extract the rare earth materials generated waste process liquors containing concentrated thorium-232 and uranium-238, both of which are radioactive. Waste tailings were likely spread or buried on the property, while liquid process wastes were likely disposed into the sewer. According to the U.S. Department of Energy, the Atomic Energy Commission (AEC) ordered the company to halt sewer disposal of thorium waste in the fall of 1947. Thereafter, thorium was precipitated as thorium oxalate sludge and later sold to the AEC.

The current occupants of the on-property area include a deli, a motorcycle repair shop, two auto body shops, a tire shop, and a construction company. The corner lot, where the deli is located, also contains three residential apartments. There is potential for the site's immediate redevelopment upon completion of the cleanup.

Site Status and Cleanup Actions to Date

- A 2012 Agency for Toxic Substances and Disease Registry's (ATSDR) health consultation noted that exposure to the site's residual radioactive contamination may pose a human health threat under certain long-term exposure scenarios.
- Based on the ATSDR document, an EPA 2012 site evaluation determined that gamma radiation exposure rate measurements identified hot spots inside the on-site buildings, along the former rail spur, and along the sidewalks and streets adjacent to the former facility. Elevated radon concentrations were found in two of the businesses.
- Based on its site evaluation findings, EPA conducted a removal action between October 2012 and April 2014. The action consisted of a gamma radiation assessment and radon sampling at the site; the installation of a radon mitigation system in one building where radon concentrations exceeded EPA's guidance level; and the installation of lead, steel, and concrete shielding in certain site areas, based on jointly developed EPA and New York City Department of Health and Mental Hygiene recommendations. This action resulted in a prevention of direct exposure to site contamination and resulted in a human exposure under control, site-wide determination.
- In 2017, EPA signed a record of decision, which calls for permanent relocation of on-property commercial and residential tenants; demolition of the contaminated buildings; excavation of the contaminated soils beneath those buildings; cleaning and/or replacing contaminated sewers; and off-site disposal of contaminated soil, debris, and sewer sediment.
- A remedial design for the building demolition was completed in 2018, and it is anticipated that a pre-design investigation for the off-property soil areas will commence in 2020.
- New York City is performing a remedial design related to contamination in the sewers and beneath the streets and sidewalks (*i.e.*, on city-owned property) under a September 2019 administrative order. It is anticipated that a pre-design investigation will commence in 2020.
- Although shielding was installed in most of the work areas and a radon mitigation system was installed in one work area on the former WACC property, significantly reducing potential radiation exposure, radiation is still present in the building materials and soils.

Project Pending Funding, as of the end of Fiscal Year 2019

This work includes the permanent relocation of the commercial and residential tenants, demolition of the contaminated buildings and contaminated soils excavation and disposal.

Funding Through Fiscal Year 2019

EPA has provided approximately \$6 million for cleanup activities at the site.