

Hazardous Site Cleanup Division Federal Facilities Branch

Greener Cleanup Success Story

Celebrating Success: EPA Region 3 Greener Cleanup and Sustainable Reuse Award Winner: Aberdeen Proving Ground Federal Facility Superfund Site

About Aberdeen Proving Ground

Aberdeen Proving Ground (APG) is an approximately 72,500-acre Army installation located in Maryland. APG's primary mission has involved the testing and development of weapon systems, munitions, vehicles, and a wide variety of military support material. APG has also conducted chemical research programs, manufactured chemical agents, and tested, stored, and disposed of toxic materials.

Greener Cleanup at Aberdeen Proving Ground

Greener Cleanup practices were implemented as part of a successful Time-Critical Removal Action (TCRA) completed at the APG Former NIKE Missile Site which has resulted in a reduced environmental footprint, accelerated site closure, and a significant cost savings. The TCRA eliminated the need for an operating groundwater pump and treat system by removing source materials (vadose zone and saturated soils) that contributed to the contaminated groundwater plume, then treating them onsite with chemical oxidation through soil mixing. This targeted removal action was an innovative Green solution for a pump and treat system operating since 2000 with diminished contaminant reduction return.



Ongoing Green Cleanup at Federal Facilities

The EPA Region 3 Federal Facilities program and the Department of Defense have collaborated to make Greener Cleanups and Sustainable Reuse a part of our everyday jobs. This removal action is just one of many examples of how the EPA Region 3 Federal Facilities Program has partnered with the Department of Defense to make Greener Cleanups and Sustainable Reuse part of our daily business.



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All OSWER Principles for Greener Cleanups Core Elements have been met by the Aberdeen Proving Ground NIKE Missile Site project:

Minimizing Total Energy Use and Maximizes Use of Renewable Energy: Reduction in energy of 32,000 kWh annually by eliminating the need of the pump and treat system.

Minimizing Air Pollutants and Greenhouse Gas Emissions: Reduction of 104 metric tons of carbon dioxide by eliminating transport and disposal of wastes to a permitted facility.

Minimizing Water Use and Impacts to Water Resources: Installed a precipitation collection system, which captured and reused 20,000 gallons of rainwater used during the chemical oxidation application process; 15,000,000 gallons of groundwater will no longer require extraction and treatment reducing impacts to the locally available waters of the State.

Reducing, Reusing and Recycling Materials and Wastes: Soils were treated onsite and reused eliminating the need for disposal of waste and imported fill. Eliminating the pump and treat system will result in materials savings of 2,000lbs in spent granular activated carbon/waste annually. 1,500 ton of certified clean materials were reused at the site to support restoration. 1,000 tons of gravel were cleaned and made available for reuse at other sites. Materials associated with the pump and treat system were collected, cleaned and made available for reuse at other sites.

Protecting Land and Ecosystems: Post treatment, the site was restored to pre-excavation condition with native grasses and seeding. Treating soils onsite eliminated the need of importing soils from offsite. There were no discharged waters to the State and the project protected sensitive wetlands within 500-yards of the site.