



SITE CG-38

Shaw Air Force Base, S.C.

Designated CG-38, one of the four, off-base, active cleanup sites here, is on the west side of S.C. highway 441 west of base. Air Force technicians discovered this site in 2009 during a groundwater investigation. About 30 feet below the surface in an aquifer called “Lang Syne” are both trichloroethylene and tetrachloroethylene. The Air Force has detected some off-and-on traces of both compounds in and around the auto hobby shop and vehicle maintenance areas, which sit close to one another on both sides of S.C. Highway 441.

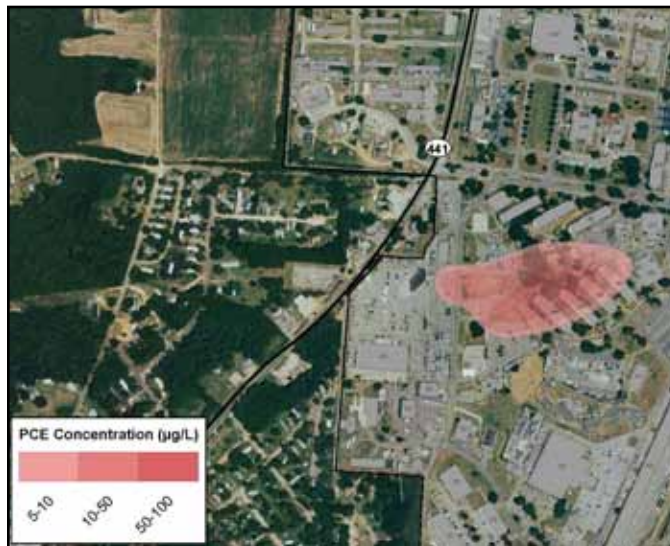
BACKGROUND

Military bases are large, complex places that must use and dispose of hazardous materials to do their missions. At Shaw, liquids such as jet and other fuels, and other petroleum products including paints, thinners, adhesives, cleaners, pesticides, hydraulic fluids and solvents are necessary for the use and care of aircraft and vehicles. Many thousands of people live and work on the base.

Before the 1970s, which was when the government began to realize the importance of regulating environmental practices, hazardous wastes were handled or discarded in numerous ways: some were stored in drums or in underground storage tanks; some were reused, recycled, or discarded in approved off-base sites; some were buried in on-base landfills; and many were burned in fire training exercises on base.

These were acceptable at the time, but are now known to cause environmental contamination and are no longer done. At Shaw, old methods resulted in some soil and groundwater contamination on and around the base.

Today, your Air Force carefully follows established hazardous waste management practices and regulations that protect the health and environment. The Air Force is committed to cleaning up the soil and groundwater contaminated from its past activities, in close partnership with the South Carolina Department of Health and Environmental Control.



Map depicting the TCE and PCE plume at site CG-38 at Shaw A.F.B., S.C. The site is located on the west side of State Rd. 441.

SITE CG-38 AT A GLANCE

- **Discovered:** 2009
- **Contaminants:** Trichloroethylene and perchloroethylene
- **Possible sources:** Vehicle maintenance
- **Location:** Shallow, Lang Syne Aquifer
- **Cleanup remedy:** To be determined
- **Status:** Remedial investigation underway

WHAT ARE THEY?

Trichloroethylene is a colorless or bluish liquid most commonly used to remove grease from metal parts and to clean textiles. Tetrachloroethylene is a manufactured chemical used for textile cleaning that is commonly known as “dry cleaning fluid,” although it can also be used for metal degreasing.

In 1989, the Environmental Protection Agency set limits for the safe amount of both compounds allowed to be released in the air, ground, and water. The maximum contamination level for both is five parts per billion, which is like 1 tablespoon (about 250 drops) of water in an Olympic-size swimming pool.



CLEANUP

The Air Force has begun a remedial process at the site that involves collecting and testing samples of soil and surface water and sediment; drilling wells to sample water underground; and evaluating the extent of contamination and any potential risks to human health and the environment.

First, sample analysis results are used to define challenges, cleanup options and goals. Next, experts propose methods and remedies. Then DHEC announces the proposal for the cleanup solution and accepts public comments. Once set, DHEC issues a Resource Conservation and Recovery Act permit and begins to track the treatment and results.

At CG-38, since the process is still underway, the impact for off-base landowners isn't yet known. To eliminate any risk of exposure to either compound, most people off base who live over the plume get their water from High Hills Rural Water Company. Some have chosen to continue to use private wells for drinking water and use filters provided by the Air Force; some use other drinking water sources. DHEC monitors conditions to ensure clean drinking water for public health.

These cleanup efforts require the cooperation and effort of many organizations and people. All are working together to protect both human health and the environment.

A remedial investigation is underway at site CG-38 near the Shaw motor pool and auto hobby shop to determine the extent of trichloroethylene contamination there. The contamination is suspected to be the result of commonly accepted storage and disposal practices used at the vehicle maintenance area from the 1950s to the 1970s. Today, Air Force vehicle maintenance facilities, like the one pictured here, operate in full compliance with environmental and safety regulations in order to protect human health and the environment for future generations.

(U.S. Air Force photo/ Staff Sgt. Thomas J. Doscher)

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U.S. Environmental Protection Agency: www.epa.gov
South Carolina Department of Health & Environmental Control: www.scdhec.gov

