



ENVIRONMENTAL RESTORATION PROGRAM

Shaw Air Force Base, S.C.

The Environmental Restoration Program is an Air Force program developed to identify, evaluate and clean up contamination from past operations and accidental spills on military bases worldwide, including Shaw. The program is designed to ensure Air Force compliance with federal and state environmental regulations, while still allowing the military to carry out missions important to national defense. It is part of the larger Defense Environmental Restoration Program managed by the Department of Defense.

WHY IS IT NEEDED?

Military bases are large, complex operations that use hazardous materials to conduct their national defense missions. Often, these processes result in the creation of hazardous and non-hazardous wastes. Although hazardous materials were managed according to common, legally acceptable disposal practices of the time, these practices were often not consistent with current regulations and laws protecting public health and the environment today. As a result, past discharges and disposals here led to some soil and groundwater contamination.

Past operations at Shaw that impacted the environment include industrial practices such as maintaining and operating aircraft and vehicles, storage and delivery of fuels, dry cleaning operations, waste disposal, landfill operations and the limited use of pesticides and herbicides.

The purpose of the Shaw ERP is to clean up hazardous waste that has contaminated soil and groundwater, ensuring the protection of human health and the environment.

HISTORY

In the 1970s, the United States became more aware of the environmental consequences of various hazardous waste disposal practices. In 1976, Congress passed the Resource Conservation and Recovery Act, which is the principal federal law governing the disposal of solid and hazardous waste. During this time, the DoD began its environmental cleanup program.

In 1980, Congress passed the Comprehensive Environmental Response, Compensation and Liability Act, also known as "Superfund." This law requires responsible parties to clean up releases of hazardous substances in the environment. In 1983, Shaw began its ERP and began assessing the installation for potential environmental damage. Three years later, in 1986, the Superfund Amendments and Reauthorization Act refined and expanded CERCLA, and formally established the DERP and funding for the program through the Defense Environmental Restoration Account.

TODAY

Unlike Superfund sites that are managed under CERCLA, Shaw is considered a "RCRA site" and is managed under RCRA with the South Carolina Department of Health and Environmental Control serving as the lead agency responsible for cleanup. The Shaw ERP is managed by the 20th Fighter

Wing's environmental office, which works very closely with DHEC at every stage of cleanup.

The ERP program here has two main components: the Installation Restoration Program, which addresses contamination that occurred prior to 1986 and the Compliance Restoration Program, which addresses accidental spills that occurred after 1986. These two programs operate in tandem with the base's Environmental Compliance Program, which ensures that current operations and waste disposal are conducted in full compliance with state and federal environmental and safety regulations, thus preventing future environmental damage.

To date, your Air Force has invested more than \$77 million dollars since 1986 on investigating and cleaning up the environment here. The Air Force plans to spend an additional \$19.7 million over the next five years as part of its commitment to be responsible environmental stewards as well as good neighbors to the people of Sumter.

THE CLEANUP PROCESS

Although there are differences between CERCLA and RCRA, both laws center their actions around four core stages. The Shaw ERP is conducted in such a way that both CERCLA and RCRA requirements are met.

The four stages address the following questions:

1. Where were hazardous wastes used or released?

CERCLA: Preliminary Assessment and Site Inspection
RCRA: Facility Assessment

In this first stage, the Air Force reviews historic records, such as maps, photographs and drawings; interviews with past and present base employees and community members; and visual inspections to look for signs of hazardous waste damage.

If the information suggests that contamination may be present at the site, the Air Force assesses the site and analyzes environmental samples to determine if additional study and/or response actions may be needed.

2. How big is the problem and what are the cleanup requirements and standards?

CERCLA: Remedial Investigation and Feasibility Study
RCRA: Facility Investigation and Corrective Measures Study

If information reveals the site needs more study, the Air Force conducts a second stage with more comprehensive investigation of the site that involves collecting and testing samples of soil, 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.

Civil engineers use the results of the investigation to develop remediation goals and cleanup options. Officials study a variety of treatment options and remedies and gather public comments regarding the Air Force's proposed plans for the cleanup solution. The final decision is formally documented for the administrative record. Under RCRA it is called a RCRA Permit. Under CERCLA, it is called a Record of Decision.

3. Design and implement the solution.

CERCLA: Remedial Design and Remedial Action RCRA: Corrective Measures Implementation

The cleanup phase begins with the beginning of the treatment option. The Air Force closely monitors the treatment system to ensure it is performing as planned.

4. When is the site ready to be closed?

Only after the Air Force and regulatory agencies, with public input, agree that Records of Decision are in place and cleanup goals have been reached, can the final stage, site closure, occur.

PUBLIC INVOLVEMENT

Every military base is part of a community, and cleanup decisions at the base can impact local residents, particularly in communities such as Sumter, S.C., where off-base, private land has been impacted by environmental contamination. As such, environmental restoration on military bases requires local community input and a transparent exchange of information.

Your Air Force is committed to making public outreach and involvement a priority of its environmental restoration program here. It has committed to conducting many of the public involvement activities specified under CERCLA, such as the formation of a Restoration Advisory Board, assignment of a community involvement coordinator, and holding of various public meetings and public comment periods. Some of these elements of outreach are not legally required under RCRA, but nonetheless, the Air Force and DHEC regulators agree that they are an appropriate—and important—way to foster environmental partnership between Shaw and the Sumter community.

PUBLIC INVOLVEMENT EFFORTS AT SHAW:

- Public meetings;
- Public comment periods for proposed plans/ permit modifications;
- Restoration Advisory Board meetings and workshops;
- Public notices and information letters;
- Fact Sheets and newsletters;
- Transparent, two-way dialogue; and
- Air Force senior leader involvement.

CERCLA & RCRA: A COMPARISON

CERCLA	RCRA
Preliminary Assessment / Site Inspection	RCRA Facility Assessment
Remedial Investigation	RCRA Facility Investigation
Feasibility Study	Corrective Measures Study
Record of Decision	Statement of Basis & Permit Modification
Remedial Design/Remedial Implementation	Corrective Measures



F-16s from Shaw A.F.B. have been a vital part of defending the East Coast of the U.S. since Sept. 11, 2001. Through the Air Force Environmental Restoration Program and Environmental Compliance Program, Shaw Airmen ensure the military mission is completed while also being responsible environmental stewards. (U.S. Air Force photo/Tech. Sgt. Louis Rivers)

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