



Highlights of [GAO-05-631T](#), testimony before the Committee on Homeland Security and Governmental Affairs, U. S. Senate

## Why GAO Did This Study

Terrorist attacks on chemical facilities could severely damage the U.S. economy and public health. About 15,000 facilities produce, use, or store large amounts of chemicals that pose the greatest risk to human health and the environment. While the Environmental Protection Agency (EPA) formerly had the lead role in federal efforts to ensure chemical facility security, the Department of Homeland Security (DHS) is now the lead federal agency responsible for coordinating government and private efforts to protect these facilities from terrorist attacks.

This testimony is based on GAO's past work on chemical facility security and focuses on (1) the attractiveness of chemical facilities as terrorist targets, (2) their diversity and risks, (3) federal security requirements for these facilities, and (4) federal and industry efforts to improve facility security.

## What GAO Recommends

In March 2003, GAO recommended that DHS and EPA develop (1) a comprehensive chemical security strategy and (2) a legislative proposal to require facilities to assess their vulnerability to attacks and require corrective action. At that time, DHS and EPA generally agreed with these recommendations and, while EPA no longer has a key role in ensuring chemical facility security, DHS is taking steps to implement them.

[www.gao.gov/cgi-bin/getrpt?GAO-05-631T](http://www.gao.gov/cgi-bin/getrpt?GAO-05-631T).

To view the full product, including the scope and methodology, click on the link above. For more information, contact John Stephenson at (202) 512-3841 or [stephensonj@gao.gov](mailto:stephensonj@gao.gov).

# HOMELAND SECURITY

## Federal and Industry Efforts Are Addressing Security Issues at Chemical Facilities, but Additional Action Is Needed

### What GAO Found

Experts agree that the nation's chemical facilities are attractive targets for terrorists. The theft or release of certain chemicals could disrupt the local economy, impact other critical infrastructures that rely on chemicals, or impact the health and safety of millions of Americans. For example, a 2002 Brookings Institution report ranks an attack on toxic chemical plants behind only biological and atomic attacks in terms of possible fatalities. While several efforts are underway, no one has yet comprehensively assessed security at the nation's chemical facilities.

The chemical sector includes a variety of facilities and risks. The 15,000 facilities with large amounts of the most dangerous chemicals include chemical manufacturers, water supply facilities, and fertilizer facilities, among others. Some facilities may be at higher risk of a terrorist attack than others because of the specific chemicals on site and their proximity to population centers. According to 2003 EPA data, 123 U.S. chemical facilities had "worst-case" scenarios where more than one million people could be at risk of exposure to a cloud of toxic gas. While EPA and DHS believe that these scenarios overstate the potential consequences of a chemical release, there are situations where an attack could have potentially more severe consequences.

Only about one-sixth of the 15,000 facilities with large amounts of dangerous chemicals are covered by federal security requirements. About 2,000 community water systems and 238 facilities that are located on waterways and handle "bulk liquid chemicals" must conduct vulnerability assessments, among other things, under the Public Health Security and Bioterrorism Response Act of 2002 and the Maritime Transportation Security Act of 2002, respectively. However, the federal government places requirements on chemical facilities to address accidental releases, which may also reduce the likelihood and mitigate the consequences of terrorist attacks.

A number of federal and industry efforts are underway to enhance chemical facility security. DHS is developing a strategy to protect the chemical sector, identify high-risk facilities, and integrate chemical sector protection efforts into a national program. With no authority to require facilities to improve security, DHS has provided the industry with financial assistance, information, and training, assessed facility vulnerability, and recommended security improvements. About 1,100 facilities participate in a voluntary industry effort in which they assess vulnerabilities, develop security plans, and undergo a third party verification that the facilities implemented the identified physical security enhancements. The extent to which the remaining facilities are addressing security is unclear and the extent of chemical facilities' security preparedness is unknown. In this context, a comprehensive national strategy to identify high-risk facilities and require facilities to assess their vulnerabilities, among other actions, would help to ensure that security vulnerabilities at chemical facilities are addressed.