

Updated October 2, 2018

Chemical Facility Anti-Terrorism Standards

State and federal governments have long regulated safety practices at facilities that store large amounts of hazardous chemicals to reduce the risk of harm from an accidental release. In 2006, the Department of Homeland Security Appropriations Act, 2007 (P.L. 109-295) authorized the Department of Homeland Security (DHS) to regulate security practices at chemical facilities to reduce the risk of terrorists triggering an intentional release or stealing chemicals for use in attacks elsewhere. Subsequently, Congress extended and modified this authority through the Protecting and Securing Chemical Facilities from Terrorist Attacks Act of 2014 (P.L. 113-254). This authority is currently set to expire in January 2019. The Protecting and Securing Chemical Facilities from Terrorism Act of 2018 (S. 3405) would reauthorize and amend this authority.

Chemical Facility Anti-Terrorism Standards

In 2007, DHS promulgated the Chemical Facilities Anti-Terrorism Standards (CFATS, 6 C.F.R. Part 27). These regulations require certain “high-risk” chemical facilities to meet risk-based performance standards in 18 areas (**Table 1**). The statute does not permit DHS to require any particular security measure. Facilities may implement any security program or process that adequately meets the requisite performance level for its risk level.

Each covered facility must meet standards based on its specific risk, i.e., higher risk facilities must meet more stringent standards than lower risk facilities.

Table 1. CFATS Risk-Based Performance Standards

<ul style="list-style-type: none"> • Restrict Area Perimeter • Secure Site Assets • Screen and Control Access • Deter, Detect, and Delay • Shipping, Receipt, and Storage • Theft and Diversion • Sabotage • Cyber • Response 	<ul style="list-style-type: none"> • Monitoring • Training • Personnel Surety • Elevated Threats • Specific Threats, Vulnerabilities, or Risks • Reporting of Significant Security Incidents • Significant Security Incidents and Suspicious Activities • Officials and Organization • Records
--	---

Source: 6 C.F.R. §27.230

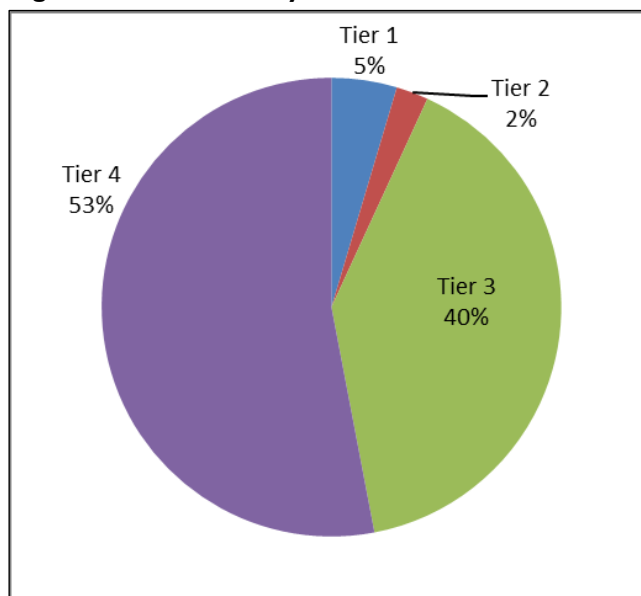
Covered Facilities

Most chemical facilities do not have to meet these standards. The statute specifically excludes all facilities defined as a water system or waste water treatment works, owned or operated by the Department of Defense or

Department of Energy, regulated by the Nuclear Regulatory Commission, or regulated under the Maritime Transportation Security Act of 2002 (P.L. 107-295). Any non-excluded facility that possesses more than a defined threshold of any of the 322 “chemicals of interest” (6 C.F.R. Part 27, Appendix A) must submit information to DHS through an online survey known as Top-Screen. DHS uses Top-Screen data to determine each facility’s risk level. Only facilities DHS deems high risk must meet the risk-based performance standards. As of June 2018, approximately 40,000 unique facilities had submitted Top-Screen data. DHS has determined that 3,367 (~8%) of these are high-risk facilities.

DHS assigns each high-risk facility to one of four graduated risk tiers (**Figure 1**). About 5% of the high risk facilities are in the highest tier, Tier 1.

Figure 1. CFATS Facility Risk Tier Distribution



Source: CRS. Adapted from U.S. Government Accountability Office, *Critical Infrastructure Protection: DHS Should Take Actions to Measure Reduction in Chemical Facility Vulnerability and Share Information with First Responders*, GAO-18-538, August 2018.

Each covered facility must prepare and submit a Security Vulnerability Assessment that describes its vulnerability to DHS-defined attack scenarios and a Site Security Plan that details how the facility will meet each of the 18 risk-based performance standards appropriate for its risk tier. Following evaluation of the Site Security Plan and an on-site authorization inspection, DHS may issue a letter of approval. The approved facilities must implement the Site Security Plan and conduct annual implementation audits. DHS inspects each covered site every two years.

Potential Reauthorization Issues

As the date for the expiration of the CFATS statutory authority approaches, the 115th Congress is considering whether the CFATS authority should be reauthorized, modified, or allowed to expire.

Congress may consider whether the CFATS and associated regulations appropriately balance homeland security and stakeholder needs. Congress may also consider how well DHS has implemented the program and whether the implementation is aligned with current congressional intent.

If Congress decides to reauthorize, it may also consider modifying aspects of the program.

Reauthorization

Complying with this program imposes significant costs on regulated facilities. Additionally, DHS spends approximately \$70 million annually implementing CFATS. Congress might decide that these costs outweigh the benefits and allow the CFATS program to end. Although this would lower the recurring costs of compliance for the currently regulated facilities, it would not affect the sunk costs for changes to processes and security infrastructure that facilities have already spent to come into initial compliance. Those costs and process changes might place formerly regulated facilities at a competitive disadvantage to facilities entering the market after the CFATS program ends.

Make Authority Permanent?

Congress specifically established a termination date for this program when it codified the previously existing DHS CFATS program through the Protecting and Securing Chemical Facilities from Terrorist Attacks Act of 2014 (P.L. 113-254). Including a termination date in a reauthorization of the program would require a future Congress to make an affirmative decision that the program is worthy of continuance. However, retaining a termination date might also increase uncertainty for the regulated community.

Modify Exclusions?

The current statute exempts some public water systems and waste water treatment works from CFATS regulations. In 2011, DHS estimated that this exempted 6,000 high-risk facilities and represented a critical gap in CFATS coverage. Lifting this exclusion could nearly triple the number of regulated facilities.

Representatives of the water sector have previously asserted that their role in public health and safety could make sanctions under CFATS counterproductive. They cite, for example, loss of public sanitation, potable water, and fire protection if DHS ordered a water or waste water utility to cease operations for security reasons or failure to comply with the CFATS regulations.

Inherently Safer Technologies

The term *inherently safer technologies* refers to the concept of chemical facilities lowering risk by making changes such as switching to non-CFATS regulated chemicals, or using lower concentrations or amounts of regulated chemicals.

Proposals that would have required chemical facilities to adopt inherently safer technologies were debated during previous congressional CFATS consideration, but were not included in the statute. Similar proposals are likely to be considered during any reauthorization debate. Some of the past criticism of a proposed statutory requirement to adopt inherently safer technology focused on the difficulty the government would have determining useful requirements that could feasibly be applied given the complicated context of each facility and process.

Even without a legal requirement, hundreds of facilities have adopted changes to move from regulated to non-regulated status or to lower their high-risk tier. DHS has identified some common approaches that these facilities have adopted and has disseminated information about these practices to the regulated community. Regulated and potentially regulated facilities can factor in this information when determining the potential costs and benefits of such practices in the context of their individual security, safety, efficiency, and other business needs.

Options for congressional consideration include requiring DHS to establish inherently safer technology standards; codifying DHS's current practice of disseminating lessons learned; or continuing to allow DHS the discretion to continue or change its programs as it sees fit.

New Risk Assessment Implementation

In 2013, the Government Accountability Office (GAO) and the DHS-funded Homeland Security Studies and Analysis Institute (HSSAI) published reports recommending changes to the DHS chemical facility risk assessment methodology. DHS implemented changes to its risk assessment engine and the web portal for collecting Top-Screen information from facilities in 2017. GAO asserts that this new methodology addresses both sets of recommendations.

DHS predicted that changing the risk assessment methodology would cause some high-risk facilities to change tiers and some facilities to become newly designated as high risk. According to data DHS provided to GAO, the new risk methodology changed the tier assignment of 48% of facilities. An additional 1,154 facilities became newly designated as high risk while 430 facilities were removed from the high-risk category.

These changes represent additional costs for both the regulated community and DHS.

The Protecting and Securing Chemical Facilities from Terrorism Act of 2018 (S. 3405)

S. 3405 would reauthorize the program for five years; require DHS to determine compliance costs for the government and industry; exclude cybersecurity as a performance standard; and lower requirements for facilities participating in a DHS-recognized industry-run security program.

Frank Gottron, fgottron@crs.loc.gov, 7-5854

IF10853