

Tiering Discussion

Under the Chemical Facility Anti-Terrorism Standard (CFATS) regulation, facilities that possess any of the 322 chemicals of interest (COIs) at levels at, or above, the screening threshold quantity must first complete a questionnaire called a "Top-Screen." The U.S. Department of Homeland Security (DHS) then uses the data in the Top-Screen submittals to determine if a submitting facility is covered under the CFATS requirement. If a determination is made that a facility is covered by CFATS, the facility must submit additional information referred to as a "security vulnerability assessment." Using a proprietary assessment approach, DHS develops scores or rankings called tiers. Facilities placed in one of the first four tiers are considered to be progressively higher in risk. Tier 1 facilities represent the highest risk under CFATS requirements.

In 2010, U.S. Nuclear Regulatory Commission (NRC) staff working with DHS staff developed a set of six hypothetical facilities, including their chemical inventories, that were entered in the automated Top-Screen online tool to determine their initial tiering. These hypothetical facilities were based on actual NRC fuel cycle facilities (FCFs) and were selected to represent their class of facility. The submissions used information for the facilities at their actual locations. The same facilities were also evaluated as if they were located in higher population centers (or as if populations had migrated to the areas around the facilities). In addition, submissions were made for these facilities with slightly more chemicals than were observed during the site visits to understand how sensitive the tiering might be to future increase in chemical inventories.

As a result of that exercise, it was determined that the driving force for CFATS tiering was population density. Given that there have not been any population changes in the range of orders of magnitude, there was no need to re-evaluate the tiering from 2010. At that time, all but one facility tiered to Tier 3 or less. One facility tiered at Tier 2 for theft of one chemical.

Currently, all FCFs store and use COIs within their security footprint. NRC security regulations for nuclear material at FCFs exceed DHS requirements for COIs. Given the DHS-approved security measures for Tier 2 and 3 facilities, it is clear that all COIs at NRC-regulated fuel cycle facilities are adequately protected, having at least comparable protection to that required under CFATS.