



Chemical Security Group LLC

ADDITIONAL QUESTIONS FOR THE RECORD

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BEFORE THE

UNITED STATES HOUSE OF REPRESENTATIVES

COMMITTEE ON ENERGY AND COMMERCE

SUBCOMMITTEE ON ENVIRONMENT

**THE CHEMICAL FACILITY ANTI-TERRORISM STANDARDS
(CFATS) PROGRAM – A PROGRESS REPORT**

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Following the hearing entitled “The Chemical Facilities Anti-Terrorism Standards Program (CFATS) – A Progress Report,” which was held on June 14, 2018, the Subcommittee asked additional questions, and I am pleased to provide the following responses for the record:

1. **Mr. Roberts, your written testimony notes that since DHS initiated the Chemical Security Assessment Tool (CSAT) 2.0 process in September 2016, the number of CFATS-affected facilities has increased from approximately 2,962 as of September 2016 to approximately 3,389 as of May 2018. Can you walk us through why that is?**

The general growth trend in the number of CFATS-regulated facilities from the inception of CSAT 2.0 in September 2016 to present is attributable, at least in part, to the Department of Homeland Security’s (DHS’s) improved tiering methodology and modeling. This has led to increases for facilities regulated for Release and Theft/Diversion Chemicals of Interest (COIs). I (as well as others) have observed that, as a result of their CSAT 2.0 Top-Screen submissions, some facilities with Release-Toxic COIs (i.e., Chlorine, Sulfur Trioxide, Bromine, Oleum, and Hydrogen Chloride, among others) that DHS did not previously consider high-risk have now been deemed high-risk (i.e., have been assigned a risk tier). The same can be said for some Theft/Diversion COIs as a result of improved tiering.

2. **Mr. Roberts, your written testimony states that the Chemical Security Assessment Tool 2.0 risk-tiering process has resulted in an increase in the number of facilities regulated for a release of a chemical of interest and that the nature of the security enhancements necessary to meet the applicable Risk-Based Performance Standards (RBPSs) may be larger or more complex. Would you help us understand why that is?**
 - a. **Your testimony specifically points out that under the new process security projects are more complex, costly, and often can take one year or more to complete. Why is that?**
 - b. **Is this a good thing for security at these facilities?**

Where possible, many CFATS-regulated facilities attempt to designate the location(s) where their COIs are stored or used as discrete “Restricted Areas.” By shrinking their “Restricted Area” footprint to the COI use and storage location(s), when possible, facilities can limit the compliance burden of, among other things, CFATS background checks under RBPS 12. In order to designate a discrete “Restricted Area,” DHS generally requires that the facility control access to and/or monitor the location. For facilities regulated for Release COIs (which are generally stored inside large vessels, tanks, railcars, or process equipment), creating a “Restricted Area” within the facility’s boundaries can be more complex. If it is possible to control access to these COI locations in the first instance, then facilities must often initiate projects that are more technical given that they may involve fencing off and/or monitoring large operations areas (e.g., tank farms, etc.).

In other instances, the Release COI is stored and/or used in multiple locations throughout the facility making it operationally impossible to designate discrete “Restricted Areas.” In these cases, the facility must consider all areas within its perimeter fence-line as the “Restricted Area” and implement security measures commensurate with its risk tier along its entire perimeter, including ensuring that more personnel have been subject to CFATS background checks. While increasing security at chemical facilities is often value-added, some facilities find the increased background check requirements difficult to manage, at least initially. However, it is worth noting that DHS is willing to discuss, in a collaborative nature, the measures that may be most appropriate in advance of a facility initiating such projects as well as permitting and encouraging facilities to take taking credit for measures that are already in place (such as process safeguards, to help address RBPSs for Release COIs in particular).

3. Mr. Roberts, Congress directed DHS to develop a risk assessment approach and corresponding tiering methodology that incorporates all of the elements of risk, including threat, vulnerability, and consequence. In your experience, what challenges has that posed both for DHS and for regulated entities?

While DHS’s revised vulnerability, consequence, and threat considerations include more detailed metrics that help account for differences among facilities (see no.5 below), and is significantly improved relative to the prior model, the revised tiering methodology sometimes yields unexpected results. With that said, DHS has been (and continues to be) willing to discuss individual tiering results with a facility and, to the extent that an error has occurred (e.g., a facility reporting incorrect data), will permit the facility to refile a Top-Screen to re-run the tiering engine.

4. Mr. Roberts, why is it important that Congress reauthorize CFATS?

It is important that Congress reauthorize CFATS to demonstrate a continued commitment to the security of the nation’s highest-risk chemical facilities. Since 2007, CFATS has driven security measures across regulated facilities, and industry requires the certainty and stability of multi-year CFATS reauthorization to ensure continuity and security planning. Multi-year reauthorization will also give DHS, and, specifically, the Infrastructure Security Compliance Division (ISCD), the sustainability it needs for programmatic development – to include the hiring and training of new Chemical Security Inspectors, which will help drive program consistency throughout the ISCD inspector regions.

5. Mr. Roberts, your written testimony points out that the new methodology implemented by DHS has also improved the transparency of its risk determination process to help the regulated community better understand why a facility may be tiered. Why is that?

In its September 2016 *Chemical Facility Anti-Terrorism Standards: Tiering Methodology Fact Sheet*, DHS provided additional context for its revised tiering methodology as it relates to its vulnerability, consequence, and threat considerations.

DHS's vulnerability consideration now accounts for inherent characteristics of the facility and/or asset and provides a list of factors which, depending on the COI's applicable Security Issue, can be used to reduce vulnerability to a terrorist attack. For example, in such instances where the applicable Security Issue is Theft/Diversion, DHS suggests that a facility's use of larger, less portable COI containers may reduce its vulnerability. DHS's consequence consideration now uses dispersion and blast modeling to more accurately account for onsite and offsite impacts of COI exploitation and misuse.

In much the same way as for the vulnerability variable, DHS also provides a list of factors which, depending upon the applicable Security Issue, are used to inform the consequences of a terrorist attack. For example, where the applicable Security Issue is Theft/Diversion, DHS indicates that the following may affect the consequence score: COI toxicity, COI explosive energy, COI quantity and concentration, COI storage (i.e., type of packaging), and COI precursor characteristics. Where the applicable Security Issue is Release, DHS indicates that the following may affect the consequence score: surrounding topography, exposure of surrounding population to the COI, COI toxicity, COI flammability, COI explosive energy, COI quantity and concentration, and COI storage (i.e., container location, temperature, pressure rating, and secondary containment (if any)).

And, finally, DHS's threat consideration uses factors, depending upon the applicable Security Issue, informed by the intelligence community to determine the level of threat of a terrorist attack or exploitation. Where the applicable Security Issue is Theft/Diversion, DHS indicates that the specific COI and mode of shipment are examined in determining the threat. Where the applicable Security Issue is Release, DHS indicates that the specific COI, facility type (whether chemical production facility or user/distributor), and the type of area where the COI is located (whether process unit, storage area, or transfer point) are examined in determining the threat.

DHS's additional explanation of the vulnerability, consequence, and threat considerations increases transparency from a compliance perspective. This also allows facilities to preemptively mitigate certain risks

(whether with an eye toward safety or to possibly avoid a high-risk designation altogether) and better understand why DHS may have tiered a facility differently than another facility that, at least superficially, appears to be similarly situated.

6. Mr. Roberts, your written testimony points out that the CFATS regulation does not permit a facility to appeal a tiering decision. Why is it important that regulated facilities be able to appeal this decision by DHS?

For the reasons described in my testimony, a tiering review process that is more formal than a technical consultation, but less formal than an outright appeal (which could possibly swallow ISCD's ability to implement the program), would be beneficial for facilities that have good cause.

7. Your written testimony directs Congress to accelerate the rulemaking process by directing DHS to publish proposed and final CFATS rules – or a determination that no changes are necessary – by dates certain. Why is this necessary?

While the CFATS regulation has not changed since it was first published in 2007, the practical and operational application of CFATS has changed in the ensuing 11 years – both in terms of ISCD's focus and industry's approach to compliance. This, alone, justifies a rulemaking to update the regulation. Because the CFATS Notice of Proposed Rulemaking has been relegated to DHS's list of Long-Term Actions, without direction from Congress, the prospect of regulatory updates is unlikely before 2020 (at the earliest).

8. Mr. Roberts, your testimony raises the issue that the CFATS regulation states that, “[i]f a covered facility makes material modifications to its operations or site, the covered facility must complete and submit a revised Top-Screen to the Department within 60 days of the material modification.” What constitutes a “material modification?”

DHS has not provided official direction on what constitutes a “material modification.” While some “material modifications” are obvious (e.g., the removal or reduction of a COI below its Appendix A Screening Threshold Quantity (STQ)), when a material modification has occurred is not always clear. Toward this end, for example, many facilities struggle to determine whether a significant increase in the quantity of a COI constitutes a “material modification.” For example, if a facility possesses 1,500,000 pounds of a Release-Flammable COI, and then subsequently increases the quantity of that COI to 2,000,000 pounds, does the 500,000-pound increase trigger a “material modification” that requires a new Top-Screen? This is one of the areas that DHS could address in a new rulemaking or even through technical guidance to industry.

9. Your testimony points out that the ability of facilities to commit capital for CFATS security measures would be impeded if the underlying CFATS program lapsed, expired, or otherwise had an uncertain future.

- a. Since, the majority of facilities have already gone through the initial round of CFATS compliance, why is that?**
- b. Do you have specific examples?**

While the majority of facilities have already gone through the initial round of CFATS compliance, many have not. For these facilities, who are new to CFATS since ISCD initiated the CSAT 2.0 process in September 2016, certainty in the future of the program is important. Among other reasons, a facility or company that is new to CFATS may be hesitant to commit capital to implement new and additional security measures for a regulatory program that has lapsed, expired, or otherwise has an uncertain future.

For those facilities that have already gone through the initial round of CFATS compliance, a similar line of reasoning is applicable. Many CFATS security measures require maintenance, upkeep, and change management practices. These include access control systems, fencing, monitoring systems, cameras, COI-specific protection measures, CFATS-specific training programs, CFATS policies and procedures, and the CFATS personnel surety program. Like a facility or company that is new to CFATS, a facility or company that has already gone through the initial round of CFATS compliance may be hesitant to continue to commit capital and resources to maintain security measures for a regulatory program that has lapsed, expired, or otherwise has an uncertain future.

Two specific examples include: (1) a large facility that moved from untiered to tiered and is in the process of implementing a CFATS security plan as an initial matter; and (2) a large facility that was previously tiered for Theft/Diversion COIs only, but is now tiered for both Theft/Diversion and Release COIs. This facility is now in the process of implementing an updated CFATS security plan and making changes to how the security plan is implemented from a Release COI perspective.

10. Your testimony mentions inconsistency across the program and DHS regions with regard to the CFATS inspector cadre. Could you please provide some examples for me?

- a. Would additional training help and what areas would you recommend that DHS focus on?**

As I noted in my testimony, CFATS experience and knowledge, and the approach to conducting an inspection, may differ among inspectors. For example:

- Some inspectors tell facilities that they have to *continuously monitor* their COI storage locations whereas others tell similarly-tiered facilities that the locations must be monitored or checked at least every 12 hours, while still others indicate that the locations need only be monitored or checked once per week. Some inspectors suggest that camera monitoring is sufficient while others suggest the monitoring / checking must be conducted in-person.
- Some Inspectors may ask facilities to provide them with a current COI inventory report so that they can compare the COI quantity on-site to the COI quantity previously reported to DHS. If the facility's current COI inventory differs from the amount reported, some inspectors tell the facility it is a "material modification" and that a new Top-Screen must be submitted – even if the difference in quantity is only a few percent. Other inspectors may tell facilities to simply report to DHS the highest possible quantity the facility *could* ever possess, even if the facility has no intention of ever possessing that quantity.
- With regard to background checks, some inspectors have asked to review completed background checks of all "affected individuals" at the facility, some only ask for a random sampling, and still others are satisfied with a single letter from a Human Resource representative stating that the background checks have been completed.
- With regard to law enforcement outreach, some inspectors tell facilities that they must meet with the local law enforcement agencies in their jurisdictions at least annually while other inspectors state that facilities need only attempt to meet with local law enforcement agencies one time. Some inspectors require documentation evidencing the outreach while others do not require such documentation.
- Some inspectors have suggested that facilities are required to implement certain security measures that are less relevant to the Security Issue(s) for which the facility is tiered (e.g., an inspector suggesting a facility must conduct *inbound* vehicle inspections when the facility is only tiered for a single Theft/Diversions COI).

Additional training to ensure a consistent level of baseline knowledge and understanding of how the RBPSs are applied would be helpful. I suggest that the training is focused in the following areas:

- The performance-based nature of the RBPSs, the expectations and generally acceptable security measures to meet the RBPSs for specific tier levels, the different CFATS Security Issues (i.e.,

Theft/Diversion, Release, and Sabotage), and the overall regulation (including the COI calculation rules).

- The CSAT, which is the online portal that the regulated facilities use to submit documents and exchange correspondence with DHS. Some inspectors appear to be unfamiliar with the CSAT's functionality.

It is worth noting that DHS has indicated that it is developing additional training materials and continues to work with field inspectors to drive consistency and knowledge.

11. Recently, it was suggested that CFATS is not robustly addressing a cyber security component at these facilities.

- a. Do you agree that the CFATS program is insufficiently addressing cyber issues?**
- b. Do inspectors need additional training to address cyber security issues at CFATS regulated facilities?**

DHS has previously stated that its goal with regard to cyber security "...is to reduce the risk of attackers conducting malicious attacks on critical systems, which could result in theft, diversion, release, or sabotage of COIs." I do not believe that DHS is insufficiently addressing cyber issues. Additional cyber security training would help inspectors better communicate with the facility's cyber / IT personnel and, in that regard, would be helpful.

12. Do you think DHS is doing a good job of promoting security without presenting risk vs. risk trade-offs for companies with chemicals of interest?

Accepting risk requires inherent trade-offs, and I respectfully ask the Committee to seek further clarification on this specific question from DHS.

13. You mentioned that there is no appeal to tiering under CFATS. Please explain the trade-offs of an appeal process and the proposal you suggested?

As noted above in question six and further to my written testimony, it would be helpful if DHS were to formalize and publicize its existing practice of how tiering is reviewed and how, if presented with hypothetical changes to a facility's chemical holdings or business practices, such changes may affect a tiering decision.