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Do Not Enter
Waste
Chemicals

SIJRID MAYR
EDITOR

Chemical Facilities

Security Issues and Risk Assessment Efforts

Defense, Security and Strategies

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DEFENSE, SECURITY AND STRATEGIES

**CHEMICAL FACILITIES
SECURITY ISSUES AND RISK
ASSESSMENT EFFORTS**



SIJRID MAYR
EDITOR

**nova**
publishers
New York

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Library of Congress Cataloging-in-Publication Data

ISBN: 978-1-62808-118-3

Published by Nova Science Publishers, Inc. † New York

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ASSESSMENT EFFORTS**

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PREFACE

Recognizing the potential harm that a large, sudden release of hazardous chemicals poses to nearby people, state and federal governments have long regulated safety practices at chemical facilities. Historically, chemical facilities have engaged in security activities on a voluntary basis. Even before the terrorist attacks of 2001, congressional policymakers expressed concern over the security vulnerabilities of these facilities. After the 2001 attacks and the decision by several states to begin regulating security at chemical facilities, Congress again considered requiring federal security regulations to mitigate these risks. This book provides an overview of the existing statutory authority and implementing regulation concerning security issues at chemical facilities, with a focus on policy options and congressional considerations.

Chapter 1 – The Department of Homeland Security (DHS) has statutory authority to regulate chemical facilities for security purposes. The 113th Congress extended this authority through October 4, 2013. Congressional policymakers have debated the scope and details of reauthorization and continue to consider establishing an authority with longer duration. Some Members of Congress support an extension, either short- or long-term, of the existing authority. Other Members call for revision and more extensive codification of chemical facility security regulatory provisions. Questions regarding the current law's effectiveness in reducing chemical facility risk and the sufficiency of federal chemical facility security efforts exacerbate the tension between continuing current policies and changing the statutory authority.

Congressional policymakers have questioned DHS's effectiveness in implementing the authorized regulations, called chemical facility anti-terrorism standards (CFATS). The DHS finalized CFATS regulations in 2007.

Since then, 40 chemical facilities have completed the CFATS process, which starts with information submission by chemical facilities and finishes with inspection and approval of facility security measures by DHS. Several factors, including the amount of detailed information provided to DHS, effectiveness of DHS program management, and the availability of CFATS inspectors, likely complicate the inspection process and lead to delays in inspection. Policymakers have questioned whether the compliance rate with CFATS is sufficient to mitigate this homeland security risk.

Key policy issues debated in previous Congresses contribute to the current reauthorization debate. These issues include the adequacy of DHS resources and efforts; the appropriateness and scope of federal preemption of state chemical facility security activities; the availability of information for public comment, potential litigation, and congressional oversight; the range of chemical facilities identified by DHS; and the ability of inherently safer technologies to achieve security goals.

The 113th Congress might take various approaches to this issue. Congress might allow the statutory authority to expire but continue providing appropriations to administer the regulations. Congress might permanently or temporarily extend the statutory authority to observe the impact of the current regulations and, if necessary, address any perceived weaknesses at a later date. Congress might codify the existing regulations in statute and reduce the discretion available to the Secretary of Homeland Security to change the current regulatory framework. Alternatively, Congress might substantively change the current regulation's implementation, scope, or impact by amending the existing statute or creating a new one. Finally, Congress might choose to terminate the program by allowing its authority to lapse and removing funding for the program. This would leave regulation of chemical facility security to state and local governments.

Chapter 2 – Facilities that produce, store, or use hazardous chemicals could be of interest to terrorists intent on using toxic chemicals to inflict mass casualties in the United States. As required by statute, DHS issued regulations that establish standards for the security of high-risk chemical facilities. DHS established the CFATS program to assess the risk posed by these facilities and inspect them to ensure compliance with DHS standards. ISCD, which manages the program, places high risk facilities in risk-based tiers and is to conduct inspections after it approves facility security plans. A November 2011 ISCD internal memorandum raised concerns about ISCD's ability to fulfill its mission.

GAO assessed the extent to which DHS has (1) assigned chemical facilities to tiers and assessed its approach for doing so, (2) revised its process to review facility security plans, and (3) communicated and worked with owners and operators to improve security. GAO reviewed DHS reports and plans on risk assessments, security plan reviews, and facility outreach and interviewed DHS officials. GAO also received input from 11 trade associations representing chemical facilities, about ISCD outreach. The results of this input are not generalizable but provide insights.

Chapter 3 – This is the Statement of Under Secretary Rand Beers, Department of Homeland Security and Director David Wulf, Department of Homeland Security.

Chapter 4 – This is the Testimony of William E. Allmond, IV, Vice President, Society of Chemical Manufacturers and Affiliates.

Chapter 5 – This is the Statement of Timothy J. Scott, Chief Security Officer and Corporate Director, The Dow Chemical Company.

Chapter 6 – This is the Testimony of Charles Drevna, President, American Fuel & Petrochemical Manufacturers. Hearing on "The Chemical Facility Anti-Terrorism Standards (CFATS) Program: A Progress Update."

Chapter 7 – This is the Testimony of Rick Hind, Legislative Director, Greenpeace.

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Chapter 1

CHEMICAL FACILITY SECURITY: ISSUES AND OPTIONS FOR THE 113TH CONGRESS*

Dana A. Shea

SUMMARY

The Department of Homeland Security (DHS) has statutory authority to regulate chemical facilities for security purposes. The 113th Congress extended this authority through October 4, 2013. Congressional policymakers have debated the scope and details of reauthorization and continue to consider establishing an authority with longer duration. Some Members of Congress support an extension, either short- or long-term, of the existing authority. Other Members call for revision and more extensive codification of chemical facility security regulatory provisions. Questions regarding the current law's effectiveness in reducing chemical facility risk and the sufficiency of federal chemical facility security efforts exacerbate the tension between continuing current policies and changing the statutory authority.

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* This is an edited, reformatted and augmented version of the Congressional Research Service Publication, CRS Report for Congress R42918, dated April 1, 2013.

inspection and approval of facility security measures by DHS. Several factors, including the amount of detailed information provided to DHS, effectiveness of DHS program management, and the availability of CFATS inspectors, likely complicate the inspection process and lead to delays in inspection. Policymakers have questioned whether the compliance rate with CFATS is sufficient to mitigate this homeland security risk.

Key policy issues debated in previous Congresses contribute to the current reauthorization debate. These issues include the adequacy of DHS resources and efforts; the appropriateness and scope of federal preemption of state chemical facility security activities; the availability of information for public comment, potential litigation, and congressional oversight; the range of chemical facilities identified by DHS; and the ability of inherently safer technologies to achieve security goals.

The 113th Congress might take various approaches to this issue. Congress might allow the statutory authority to expire but continue providing appropriations to administer the regulations. Congress might permanently or temporarily extend the statutory authority to observe the impact of the current regulations and, if necessary, address any perceived weaknesses at a later date. Congress might codify the existing regulations in statute and reduce the discretion available to the Secretary of Homeland Security to change the current regulatory framework. Alternatively, Congress might substantively change the current regulation's implementation, scope, or impact by amending the existing statute or creating a new one. Finally, Congress might choose to terminate the program by allowing its authority to lapse and removing funding for the program. This would leave regulation of chemical facility security to state and local governments.

INTRODUCTION

Recognizing the potential harm that a large, sudden release of hazardous chemicals poses to nearby people, state and federal governments have long regulated safety practices at chemical facilities. Historically, chemical facilities have engaged in security activities on a voluntary basis. Even before the terrorist attacks of 2001, congressional policymakers expressed concern over the security vulnerabilities of these facilities. After the 2001 attacks and the decision by several states to begin regulating security at chemical facilities, Congress again considered requiring federal security regulations to mitigate these risks.

In 2006, the 109th Congress passed legislation providing the Department of Homeland Security (DHS) with statutory authority to regulate chemical facilities for security purposes. Subsequent Congresses have extended this authority, which currently expires on October 4, 2013. Advocacy groups, stakeholders, and policymakers have called for Congress to reauthorize this authority, though they disagree about the preferred approach. Congress may extend the existing authority, revise the existing authority to resolve potentially contentious issues, or allow this authority to lapse.

This report provides a brief overview of the existing statutory authority and implementing regulation. It describes several policy issues raised in previous debates regarding chemical facility security and identifies policy options for congressional consideration.

OVERVIEW OF STATUTE AND REGULATION

The 109th Congress provided DHS with statutory authority to regulate chemical facilities for security purposes.¹ The statute explicitly identified some DHS authorities and left other aspects to the discretion of the Secretary of Homeland Security. The statute contains a “sunset provision” that causes the statutory authority to expire on October 4, 2013.² This section reviews the chemical facility security statute and regulation, focusing on the regulatory compliance process.

On April 9, 2007, the Department of Homeland Security issued an interim final rule regarding the chemical facility anti-terrorism standards (CFATS).³ This interim final rule entered into force on June 8, 2007. The interim final rule implements both statutory authority explicit in P.L. 109-295, Section 550, and authorities DHS found that Congress implicitly granted. In promulgating the interim final rule, DHS interpreted the language of the statute to determine what DHS asserts was the intent of Congress. Consequently, much of the rule arises from the Secretary’s discretion and interpretation of legislative intent rather than explicit statutory language.

Under the interim final rule, the Secretary of Homeland Security determines which chemical facilities must meet regulatory security requirements, based on the degree of risk posed by each facility. The DHS lists 322 “chemicals of interest” for the purposes of compliance with CFATS.⁴ The DHS considers each chemical in the context of three threats: release; theft or diversion; and sabotage and contamination. Chemical facilities with greater than specified quantities, called screening threshold quantities, of chemicals of

interest must submit information to DHS to determine the facility's risk status. See **Figure 1**. The statute exempts several types of facilities from this requirement: facilities defined as a water system or wastewater treatment works; facilities owned or operated by the Department of Defense or Department of Energy; facilities regulated by the Nuclear Regulatory Commission (NRC); and those facilities regulated under the Maritime Transportation Security Act of 2002 (P.L. 107-295).

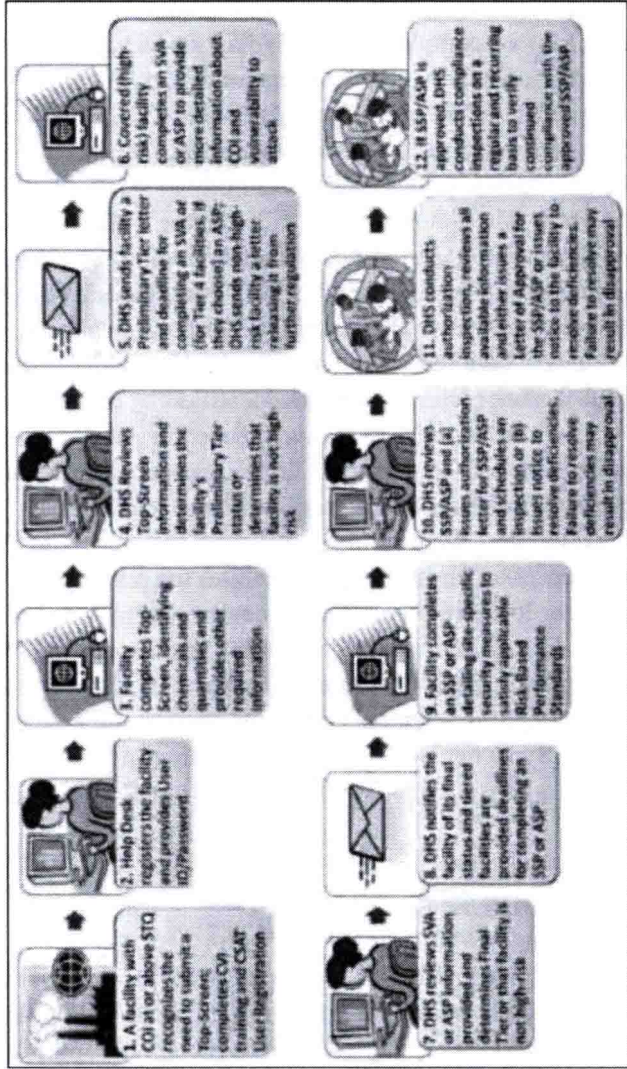
Based on the information received from the facility, DHS determines whether a facility is or is not high-risk. Facilities that DHS deems high risk must meet CFATS requirements. The DHS assigns high-risk facilities into one of four tiers based on the magnitude of the facility's risk. Facilities in higher risk tiers must meet more stringent performance-based requirements. The statute mandated the use of performance-based security requirements.⁵ The DHS created graduated performance-based requirements for facilities assigned to each risk-based tier.

All high-risk facilities must perform a security vulnerability assessment, develop an effective site security plan, submit these documents to DHS, and implement their security plan.⁶ The security vulnerability assessment serves two purposes under the interim final rule. One is to determine or confirm the placement of the facility in a risk-based tier. The other is to provide a baseline against which to evaluate the site security plan activities.

The site security plans must address the security vulnerability assessment by describing how activities in the plan correspond to securing facility vulnerabilities. Additionally, the site security plan must address preparations for and deterrents against specific modes of potential terrorist attack, as applicable and identified by DHS. The site security plans must also describe how the activities taken by the facility meet the risk-based performance standards provided by DHS.

The DHS must review and approve the submitted documents, audit and inspect chemical facilities, and determine regulatory compliance. The DHS may disapprove submitted security vulnerability assessments or site security plans that fail to meet DHS performance-based standards, but not because of the presence or absence of a specific security measure. In the case of disapproval, DHS must identify in writing those areas of the assessment and/or plan that need improvement. Owners or operators of chemical facilities may appeal such decisions to DHS.

(July 2012)



Source: Office of Infrastructure Protection, National Protection and Programs Directorate, Department of Homeland Security, *Chemical Facility Anti-Terrorism Standards (CFATS) and Ammonium Nitrate Security Regulation Update*, July 31, 2012.

Notes: COI = Chemical of Interest; STQ = Screening Threshold Quantity; CVI = Chemical-terrorism Vulnerability Information; CSAT = Chemical Security Assessment Tool; SVA = Security Vulnerability Assessment; ASP = Alternative Security Program; SSP=Site Security Plan.

Figure 1. Overview of CFATS Regulatory Process.

Similarly, if, after inspecting a chemical facility, DHS finds the facility not in compliance, the Secretary must write to the facility explaining the deficiencies found, provide an opportunity for the facility to consult with DHS, and issue an order to the facility to comply by a specified date. If the facility continues to be out of compliance, DHS may fine and, eventually, order the facility to cease operation. The interim final rule establishes the process by which chemical facilities can appeal DHS decisions and rulings, but the statute prohibits third-party suits for enforcement purposes.

The statute requires certain protections for information developed in compliance with this act. The interim final rule creates a category of information exempted from disclosure under the Freedom of Information Act (FOIA) and comparable state and local laws. The DHS named this category of information “Chemical-terrorism Vulnerability Information” (CVI). Information generated under the interim final rule, as well as any information developed for chemical facility security purposes identified by the Secretary, comprise this category. Judicial and administrative proceedings shall treat CVI as classified information. The DHS asserts sole discretion regarding who will be eligible to receive CVI. Disclosure of CVI may be punishable by fine.

The interim final rule states it preempts state and local regulation that “conflicts with, hinders, poses an obstacle to, or frustrates the purposes of” the federal regulation.⁷ States, localities, or affected companies may request a decision from DHS regarding potential conflict between the regulations. Since DHS promulgated the interim final rule, Congress amended P.L. 109-295, Section 550, to state that such preemption will occur only in the case of an “actual conflict.”⁸ The DHS has not issued revised regulations addressing this change in statute.

IMPLEMENTATION

The National Protection and Programs Directorate (NPPD) within DHS is responsible for chemical facility security regulations. In turn, the Office of Infrastructure Protection, through its Infrastructure Security Compliance Division (ISCD), oversees the CFATS program within NPPD.⁹ This section reviews implementation of the chemical facility security regulations, focusing on funding, the number of regulated facilities, rate of facility inspection, and DHS’s internal review of its implementation efforts.

Staffing and Funding

The availability of staff, infrastructure, and funds is a key factor in implementing the CFATS program. Congress has not authorized specific appropriations for the CFATS program. As seen in **Table 1**, the staffing and funding for this program generally increased since its creation, but decreased since FY2011. The full-time-equivalent (FTE) staffing peaked in FY2011 at 257 FTE and then dropped to 247 in the next two fiscal years. Appropriations for this program peaked in FY2010 at \$103 million and have declined in each subsequent fiscal year.

When DHS received statutory authority to regulate chemical facilities in 2006, it did not possess a chemical facility security office or inspector cadre. The general increase in FTE over time reflects the creation and staffing of the office and the development of an inspector cadre. As of February 2012, DHS testified that it had hired most of the inspector cadre.¹⁰

For FY2013, Congress appropriated \$78 million for ISCD.¹¹ The explanatory statement accompanying FY2013 appropriations also directed DHS to provide reports to Congress, including an expenditure plan for the CFATS program, a report on CFATS personnel surety efforts, and a semi-annual report on the implementation of the CFATS program; and briefings on the use of alternative security programs, on efforts to harmonize responsibilities under MTSA and CFATS, and on the status of any proposed personnel surety information security requests.

Number of Regulated Facilities

The DHS has assessed initial information submissions from more than 41,000 chemical facilities (step 4 in **Figure 1**). Of these facilities, DHS required more than 7,800 to submit a security vulnerability assessment to determine whether they were high-risk. From the submitted security vulnerability assessments, DHS has identified more than 4,400 facilities as high-risk. The other approximately 37,000 facilities that submitted information to DHS are low-risk and need meet no further CFATS requirements at this time.¹² The DHS assigned each high-risk facility, in some cases preliminarily, to one of four risk tiers (step 7 in **Figure 1**). **Table 2** shows the number of high-risk facilities in each tier as of July 31, 2012, with Tier 1 those facilities of highest risk.