

CHEMICAL SECURITY SUMMIT

Introduction to Chemical Security at CISA

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#ChemicalSecurity

CHEMICAL SECTOR MANAGEMENT TEAM

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Public-Private Partnership



Key concepts that enable and govern the way in which CISA engages with partners include:

- CISA's National Coordinator Role
- Critical Infrastructure Sectors
- Sector Risk Management Agency (SRMA)
- Critical Infrastructure Partnership Advisory Council (CIPAC)





16 Critical Infrastructure Sectors

The Cybersecurity and Infrastructure Security Agency (CISA) is the nation's risk advisor and is the Sector Risk Management Agency (SRMA) for 8 of 16 US Critical Infrastructure Sectors to include the Chemical Sector.

CISA-led Sectors



Critical Infrastructure Sectors | CISA
cisa.gov/critical-infrastructure-sectors



Sector Risk Management Agency



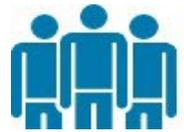
- The responsibilities set forth in the FY21 National Defense Authorization Act (NDAA) mandate that each SRMA utilize its specialized expertise regarding its designated critical infrastructure sector or subsector to:
 - Support sector risk management
 - Assess sector risk
 - Coordinate across the sector
 - Facilitate information sharing regarding physical security and cybersecurity
 - Support incident management
 - Contribute to emergency preparedness efforts
- Multiple CISA divisions contribute to the implementation of the SRMA responsibilities.





Partnership Collaboration Structure

Critical Infrastructure Partnership Advisory Council (CIPAC) membership consists of the partnership councils established in the National Infrastructure Protection Plan, now the “National Plan”



Sector Coordinating Councils (SCCs)



Government Coordinating Councils (GCCs)



Cross-Sector Councils

- Sector Coordinating Councils (SCC)
- Government Coordinating Councils (GCC)
- Critical Infrastructure Cross-Sector Council (CIC-SC)
- Federal Senior Leadership Council (FSLC)
- State, Local, Tribal, and Territorial Government Coordinating Council (SLTT GCC)
- Regional Consortium Coordinating Council (RCCC)



SCC-GCC Coordination



CISA coordinates with SCCs through SRMAs and related GCCs to address critical infrastructure security and resilience policies and sector efforts



Sector Coordinating Council



- The SCC Executive Committee is comprised of a Chair, Vice-Chair, Assistant Vice Chairs, Immediate Past Chair, and Former Past Chair, with each serving one-year terms.
- The Chairs represent the Council and not any individual member associations.
- **SCC Members**
 - Agricultural Retailers Association
 - American Coatings Association
 - American Fuel & Petrochemical Manufacturers
 - Council of Producers & Distributors of Agrotechnology
 - Compressed Gas Association
 - CropLifeAmerica
 - International Institute of Ammonia Refrigeration
 - International Liquid Terminals Association
 - Louisiana Chemical Association
 - National Association of Chemical Distributors
 - Society of Chemical Manufacturers and Affiliates



Government Coordinating Council



- Counterpart to SCC for each critical infrastructure sector
- Leverages complementary resources within government and between government and industry.
- **GCC Members**
 - Department of Commerce
 - Department of Defense
 - Department of Energy
 - Department of Labor
 - Department of Homeland Security
Chemical Safety Board
 - Department of Justice
 - Department of State
 - Department of Transportation
 - Environmental Protection Agency
 - Office of the Director of National Intelligence
 - State, Local, Tribal, and Territorial
Government Coordinating Council

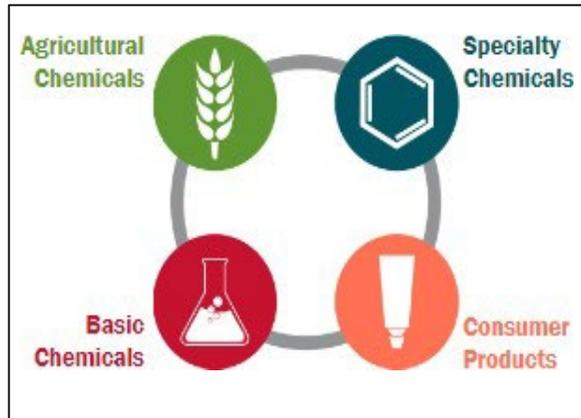




Chemical Sector Profile

- The Chemical Sector converts various raw materials into more than 70,000 diverse products that are essential to modern life.
- Several hundred thousand chemical owners and operators, use, manufacture, store, transport, or deliver chemicals along a complex, global supply chain.
- End customers include critical infrastructure facilities in other sectors; the uninterrupted production and transportation of chemicals is essential for national and economic security.
- Owners and operators include Chemical Manufacturers, Petrochemical Manufacturers, Pharmaceutical Companies, Agricultural Facilities, Chemical Distributors, Universities, and Specialty Retail.

Chemical Industry Segments



Manufacturing Plants

Convert raw materials into intermediate and end products.

Warehousing/Storage

Provide downsized repacking and storage.

Functional Areas



End Users

Typically consume the chemical purchased.

Transport Systems

Transport chemicals to and from manufacturing plants, warehouses, and end users



Partnership in Action



- **Chemical Sector Security Awareness Training**

- Web-Based Security Awareness Training on how to prepare for and respond to an active shooter situation, counter insider threats, detect and report surveillance activities, and how to guard against theft and diversion.
- General security considerations, identification of suspicious activities and behaviors, and industry-recognized effective practices to enhance the security posture of chemical facilities.

- **Cross-Sector Resiliency Workshop**

- Exercise focused on collaboration and coordination among private and public sector partners, cross-sector incident response protocols, and resilience efforts among Chemical and Water sectors and the Electricity Subsector of the Energy sector.
- Examined emergency response plans and procedures during an incident, with a focus on incident response playbook protocols, including trigger points for activation and cross-sector collaboration.

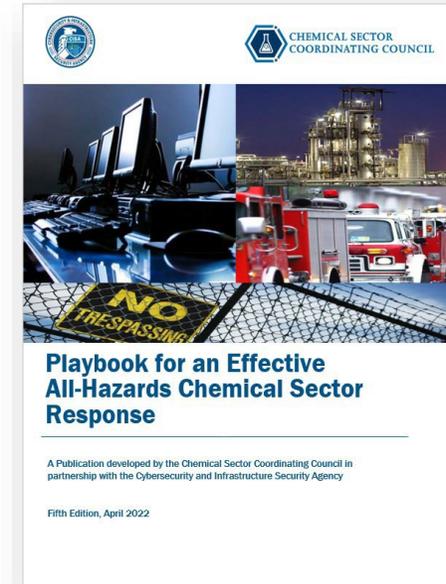
cisa.gov/chemical-sector-security-awareness-training-course.'"/>



Partnership in Action



- **Playbook for an Effective All-Hazards Chemical Sector Response**
 - Provides a Standard Operating Procedure (SOP) to assist the Chemical Sector in preparing for, responding to, and recovering from an all-hazards emergency.
 - Defines the respective roles and responsibilities of the Chemical SCC and the Chemical SRMA as well as their interaction in support of a coordinated public-private sector response to an all-hazards emergency.
- **2022 Chemical Security Summit**
 - The Summit features important chemical security information for industry organizations, facility owners and operators, government officials, first responders, and law enforcement. Discussing and sharing the latest in chemical security best practices, including:
 - The state of chemical security—updates for the Chemical Facility Anti-Terrorism Standards (CFATS) program and ongoing voluntary chemical security efforts
 - A deep-dive into the 18 CFATS Risk-Based Performance Standards (RBPS), including cyber and physical security best practices
 - Chemical threat briefing
 - Cyber hygiene services, such as vulnerability scanning



Efforts & Engagements



- **Supply Chain Security and Resilience**
 - In development: Case Study Regarding CISA Region 10, state, and local water sector response to the June 2021 chlorine disinfectant chemical supply chain shortage
 - In development: Playbook for action in a chemical supply chain shortage based on lessons learned from GCC and SCC members
- **Cybersecurity Coordination**
 - Common Baseline Cybersecurity Performance Goals
 - National Security Council (NSC), Chemical Industrial Control Systems (ICS) Cybersecurity Action Plan
- **Classified Briefings and Unclassified Threat Calls**
- **Upcoming Engagements**
 - AIChE Annual Meeting
 - Chlorine Institute Fall Meeting
 - INFOSEC 2022
 - 66th Annual Safety in Ammonia Plants and Related Facilities Symposium



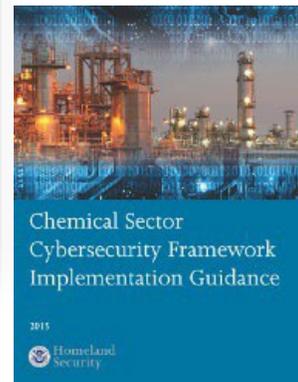


Programs, Capabilities & Resources

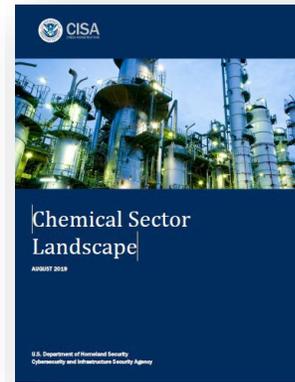
- CISA offers security and resilience products and services for Chemical Sector owners and operators: cisa.gov/chemical-sector-resources



Chemical SRMA Fact Sheet



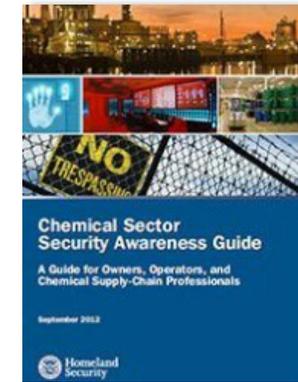
Cybersecurity Framework Implementation Guidance



Primary security and resilience issues relevant to the sector.



Sector Profiles
Unique characteristics of each sector



Chemical Sector Security Awareness Guide



Programs, Capabilities & Resources



- **Homeland Security Information Network–Critical Infrastructure (HSIN-CI) Chemical Portal**

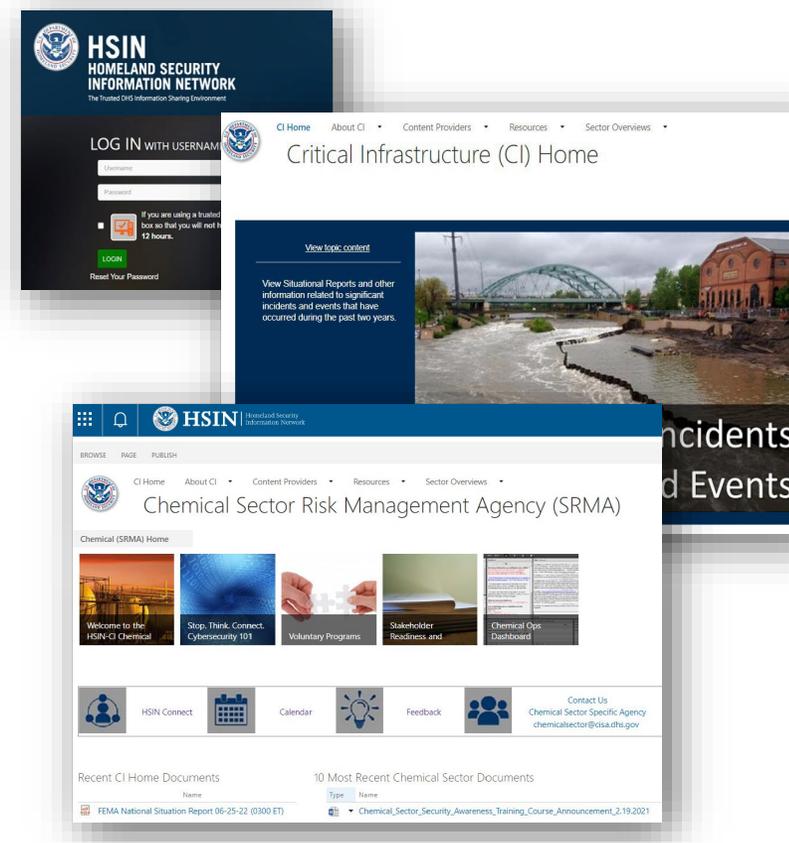
- Platform for enabling information sharing among public and private sector critical infrastructure partners
- Training & Resource library
- Upcoming Meetings/Event Notices
- Exercise Material & After-Action Reports
- Community of Interests with restricted access

- **HSIN-CI Chemical Portal:** <https://hsin.dhs.gov/ci/chm>

- Community of Interest (COI) platform to enable information sharing among Chemical Sector Partners.

- **To request access, email HSINCI@dhs.gov, providing:**

- Name
- Company / Organization
- Company Email Address
- Community of Interest (COI)
- Purpose for Access

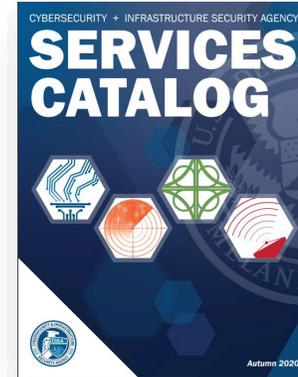




Programs, Capabilities & Resources

▪ CISA Services Catalog

- A single resource to provide users with access to information on services across CISA's mission areas.
- The catalog is available to Federal government; state, local, tribal and territorial government; private industry; academia; NGO and non-profit organizations; and general public stakeholders.
- It is interactive, allowing users to filter and quickly home in on applicable services, with just a few clicks.



[CISA Services Catalog | CISA](#)

▪ Private Sector Clearance Program (PSCP)

- Managed by the CISA OCSO Personnel Security Division (PSD), PSCP enables selected owners, operators, and representatives to access classified information and more fully participate in the protection of critical infrastructure and the security of the homeland.
- New requests for PSCP security clearances from the field may be directed to the applicable regional nominator or to the Chemical SMT for nomination and processing.
 - Chemical Sector PSCP POC: Janine Mason, Janine.Mason@cisa.dhs.gov

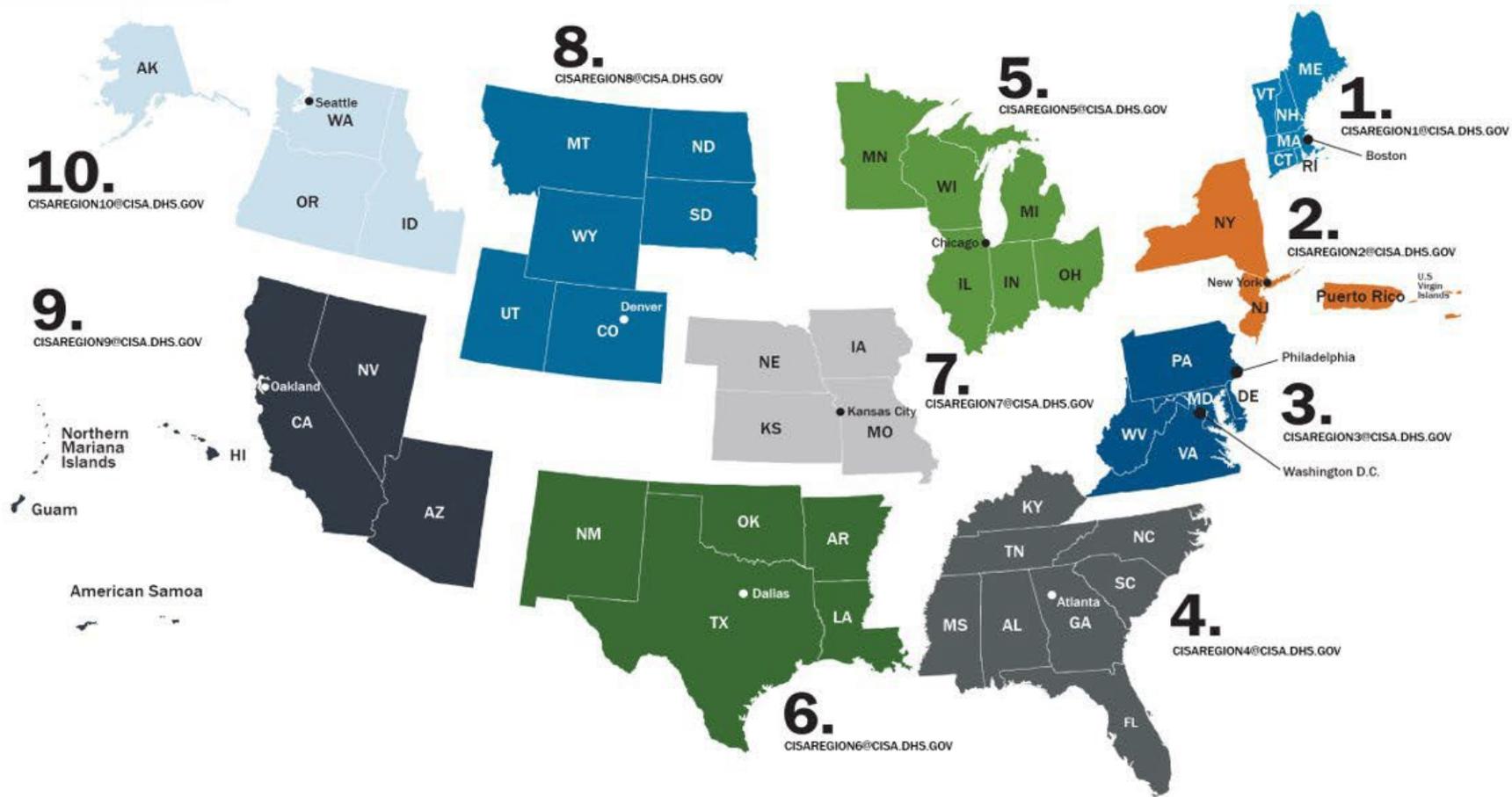




Programs, Capabilities, and Resources

CISA Regions

- 1 Boston, MA
- 2 New York, NY
- 3 Philadelphia, PA
- 4 Atlanta, GA
- 5 Chicago, IL
- 6 Dallas, TX
- 7 Kansas City, MO
- 8 Denver, CO
- 9 Oakland, CA
- 10 Seattle, WA



cisa.gov/cisa-regions



For more information:
cisa.gov

Questions?
Email: ChemicalSector@cisa.dhs.gov

CHEMICAL SECURITY SUMMIT

Introduction to Chemical Security at CISA

Zeina Azar

**Section Chief
Standardization and Evaluation Section
Compliance Branch
CISA Chemical Security**



#ChemicalSecurity

Why Chemical Facility Security?

- We face a persistent and evolving threat
- A successful attack on a chemical facility could potentially cause a significant number of deaths and injuries
- Certain chemical facilities possess materials that could be stolen or diverted and used for terrorist activities



Variety of Threats



Chlorine Gas Bomb, Iraq, 2015

Toxic industrial chemicals, such as chlorine



Hydrogen Sulfide, Australia, 2017 (foiled)

Production of chemical weapons



Manchester Arena, England, 2017

Chemicals used in improvised explosive devices

Modern Day Tactics



French Authorities Hold Suspect in Beheading and Explosion at Chemical Plant
NY Times, June 26, 2015



Drones Strike World's Largest Oil Processing Facility in Saudi Arabia
AP, Sept 14, 2019

CISA Programs to Secure Chemicals



Chemical Facility Anti-Terrorism Standards (CFATS) Regulation

- ▶ Facilities must report Chemicals of Interest
- ▶ High-risk facilities create tailored chemical security plans that meet CISA's physical and cyber security standards

Proposed Ammonium Nitrate Security Regulation

- ▶ Point-of-Sale reporting of AN purchases
- ▶ Final rule has not been promulgated

Regulatory



ChemLock

- ▶ Voluntary tools and services to facilitate facility security
- ▶ Open to all facilities with dangerous chemicals



International

- ▶ Global Congress on Chemical Security and Emerging Threats
- ▶ International Testing project

Bomb-Making Materials Awareness Program (BMAP)

- ▶ Outreach, training, and awareness

Voluntary



Chemical Facility Security Initiatives

Point-of-Sale Explosive Precursor Initiatives

Chemical Facility Anti-Terrorism Standards (CFATS)



The CFATS Regulation

Regulation based on chemical holdings, not industry type

- Authorized initially by Congress in 2006
- 322 Chemicals of Interest (COI) trigger reporting requirements
 - Exclusions
- CISA's risk-based tiering methodology identifies which facilities are high-risk
 - 3,300+ high-risk facilities
- High-risk facilities develop and implement tailored security plans
 - Risk Based Performance Standards – physical and cyber security
- Inspections ensure security is adequate and in place
- Enforcement

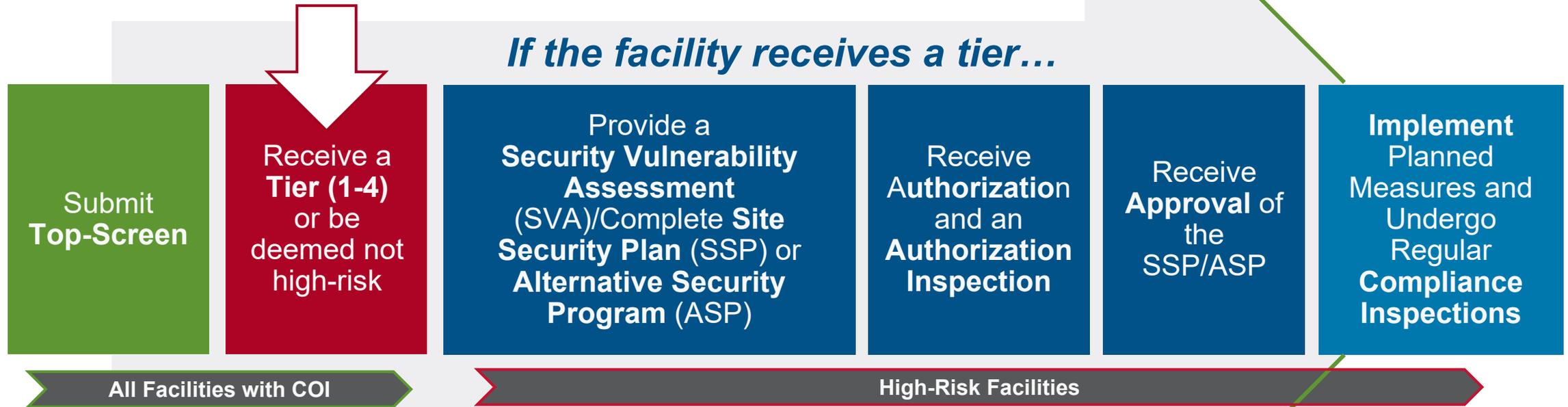
 Colleges and Universities	 Cold Chain/ Refrigeration	 Fisheries and Hatcheries	 Energy Utilities
 Laboratories	 Mining	 Industrial Manufacturing	 Paints and Coatings
 Pulp and Paper	 Semiconductor Manufacturing	 Motor Racing	 Warehouses/ Distribution

Examples of industries regulated under CFATS



The CFATS Process

Facility may be tiered in or drop out



- CISA provides compliance assistance upon request at any stage of this process
- More than 150 Chemical Security Inspectors are available for support across the country



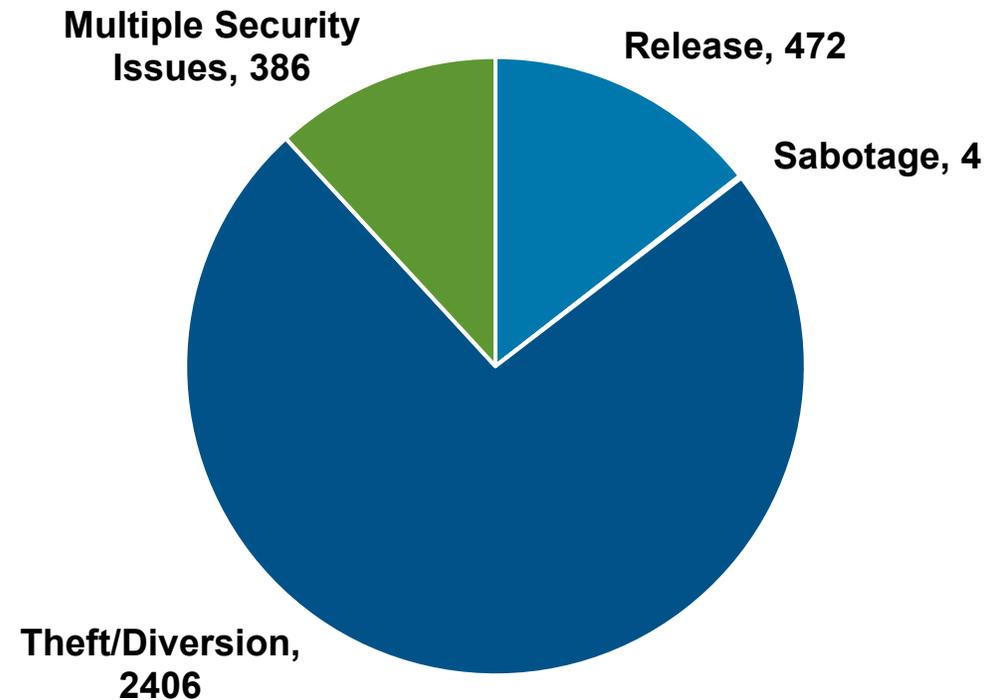
High-Risk Chemical Facility Population

As of 8/22/2022

of High-Risk Facilities by Tier

Tier 1	184
Tier 2	73
Tier 3	1434
Tier 4	1577
Total	3,268

Security concerns for which facilities are considered high-risk



CFATS Overarching Security Objectives

CISA has grouped facility security into five overarching security objectives to help facilities develop tailored security plans that meet risk-based standards



Detection



Delay



Response



Cybersecurity



Security Management



Risk-Based Performance Standards

- Compliance with the RBPS will be tailored to fit each facility's circumstances, including tier level, security issues, and physical and operating environments
- Rather than prescribe specific facility security measures, CISA developed 18 Risk-Based Performance Standards (RBPS)

CFATS 18 Risk-Based Performance Standards

- | | |
|-----------------------------------|--|
| 1) Restrict Area Perimeter | 10) Monitoring |
| 2) Secure Site Assets | 11) Training |
| 3) Screen and Control Access | 12) Personnel Surety |
| 4) Deter, Detect, Delay | 13) Elevated Threats |
| 5) Shipping, Receipt, and Storage | 14) Specific Threats, Vulnerabilities, or Risks |
| 6) Theft and Diversion | 15) Reporting Significant Security Incidents |
| 7) Sabotage | 16) Significant Security Incidents and Suspicious Activities |
| 8) Cyber | 17) Officials and Organization |
| 9) Response | 18) Records |



RBPS 1 – Restrict Area Perimeter



RBPS 8 – Cyber



RBPS 10 – Monitoring



What Should You Do Next?



Visit [CISA.gov](https://cisa.gov) to access Appendix A:
cisa.gov/appendix-chemicals-interest.



If your facility manufactures, stores, distributes, or uses any of the chemicals of interest (COI) in Appendix A at or above the minimum concentrations and screening threshold quantities, you are required to submit a Top-Screen.



- ▶ Complete **Chemical-terrorism Vulnerability Information (CVI)** Training
- ▶ Register for **Chemical Security Assessment Tool (CSAT)**
- ▶ Submit a **Top-Screen**
- ▶ Register for CSAT and submit a Top-Screen: <https://csat-registration.dhs.gov/>



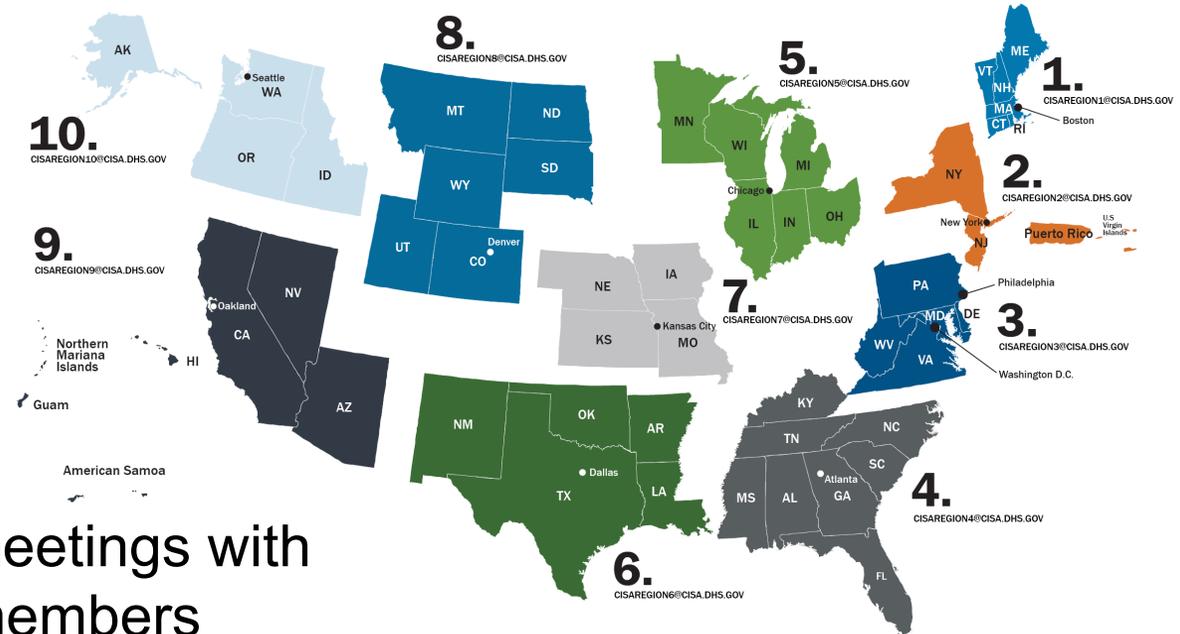
Chemical Security Inspectors

- Chemical Security Inspectors are in all 50 States
 - More than 150 Chemical Security Inspectors
 - Organized into teams in each of the 10 Federal regions

- Conduct:

- Authorization Inspections
- Compliance Assistant Visits
- Compliance Inspections
- Stakeholder Outreach

- Chemical Security Inspectors also attend meetings with Federal, State, local, and private industry members



Available Resources



Outreach: CISA outreach for CFATS is a continuous effort to educate stakeholders on the program.

- ▶ To request a CFATS presentation or a CAV, submit a request through the program website cisa.gov/cfats or email CISA at CFATS@hq.dhs.gov.



CSAT Help Desk: Direct questions about the CFATS program to the CSAT Help Desk.

- ▶ Hours of Operation are Mon. – Fri. 8:30 AM – 5:00 PM (ET)
- ▶ CSAT Help Desk toll-free number 1-866-323-2957
- ▶ CSAT Help Desk email address csat@dhs.gov



CFATS Website: For CFATS Frequently Asked Questions (FAQs), CVI training, and other useful CFATS-related information, please go to cisa.gov/cfats.

CFATS Knowledge Center: For CFATS Frequently Asked Questions (FAQs) and other resources, please go to csat-help.dhs.gov.



ChemLock



Setting the Stage: Genesis of an Idea



Where do we see gaps in the U.S.'s current approach to chemical security?



How can we leverage our expertise and resources to address them?



Addressing the Challenge

Challenge:

How can CISA best help regulated and unregulated chemical security partners to take additional voluntary steps to reduce the risk of terrorist attacks involving dangerous chemicals?

Our solution:

A suite of security risk management products, technical services, and incentives that **facilitate** and **motivate** meaningful action by entities that manufacture, store, distribute, transport, and use dangerous chemicals.



CHEM LOCK

Know your **chemicals**.

Lock in your security posture.



ChemLock Services and Tools



On-Site Assessments and Assistance

- ▶ Security awareness consultations
- ▶ Security posture assessment
- ▶ Actionable security planning



ChemLock Resources

- ▶ Security planning guidance
- ▶ Security planning template
- ▶ Fact sheets and best practices



Exercises and Drills

- ▶ Chemical security exercise templates
- ▶ CISA-facilitated tabletop exercises



Training Courses

- ▶ Introduction to Chemical Security
- ▶ Secure Your Chemicals Security Planning



Special Access to CISA Services

- ▶ CISA Active Shooter Preparedness
- ▶ Cyber Security Evaluation Tool (CSET) Demo



All ChemLock services are completely voluntary and no cost.

What ChemLock Services Are Available?

	Facility with Dangerous Chemicals	Untiered Facility Under CFATS	High-Risk Facility Under CFATS
 On-Site Assessments and Assistance	✓	✓	✗
 ChemLock Resources	✓	✓	✓
 Exercises and Drills	✓	✓	✓
 Training Courses	✓	✓	✓
 Special Access to CISA Services	✓	✓	✓



How Do I Sign Up for a ChemLock Service?

- Visit cisa.gov/chemlock
- Fill out our short service request form
- CISA will contact you to follow up about the service you are requesting

Questions about ChemLock?



ChemLock@cisa.dhs.gov



cisa.gov/chemlock





ChemLock Service Request Form

Thank you for your interest in the ChemLock Program. ChemLock services help facilities that possess dangerous chemicals understand their potential vulnerabilities and identify security options for addressing them.

Please complete this form to request contact from a CISA representative to discuss a ChemLock Service.

* 1. Select the [ChemLock service](#) you are requesting.

If you would like to request multiple services at this time, please select 'Other' and list all desired services in the text field provided.

- On-Site Chemical Security Assessments and Assistance
- Chemical Security Training
- Chemical Security Tabletop Exercise or Drill
- Cyber Security Evaluation Tool (CSET) Demonstration and Support
- Active Shooter Preparedness Training

Example ChemLock Service Request Form



For more information:
cisa.gov/chemical-security
cisa.gov/cfats
cisa.gov/chemlock

For questions:
CFATS@hq.dhs.gov
ChemLock@cisa.dhs.gov

SCAN HERE TO LEARN MORE



ABOUT THE CHEMLOCK PROGRAM!

✉ ChemLock@cisa.dhs.gov

🖱 cisa.gov/chemlock

SCAN HERE TO GET CFATS RESOURCES:



FACT SHEETS, FLYERS, GUIDANCE, AND MORE!

✉ CFATS@hq.dhs.gov

🖱 cisa.gov/cfats