

Lessons Learned from the CFATS Trenches

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Agenda

- CFATS overview
- Industries with Facilities Regulated by CFATS
- Trenches #1- #5 Common COI
- Summary of Risk-Based Performance Standards (RBPS)
- Focus Issue: RPBS 12 – Personnel Surety
- CFATS Reporting – Helpful Hints
- Enforcement

CFATS Overview



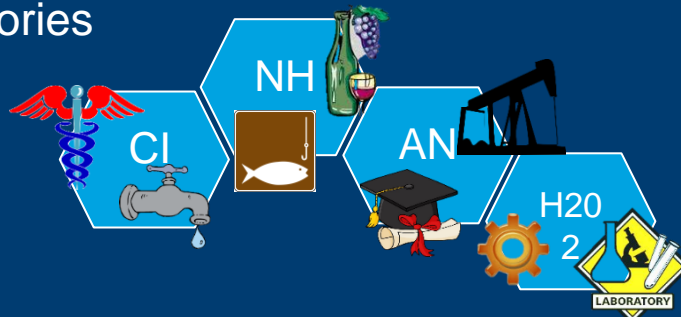
- Affects any commercial or industrial facility who uses or processes a Chemical of Interest (COI) at or above a certain quantity and concentration
- Addresses chemical security risk by the initial notification (Top Screen) to determine “high risk” by Security Threat:
 - Release (toxic, flammable or explosive)
 - Sabotage
 - Theft/Diversion
- Facilities determined by DHS to be high-risk are required to develop and implement security plans that meet applicable risk-based performance standards (RBPS)
- Reauthorized by Congress Jan 18, 2019 thru April 2020



Industries with Facilities Regulated by CFATS

CFATS regulates facilities in various industries, including:

- Academia (College & Universities)
- Aerial Sprayers (Non-Fertilizer)
- Breweries
- Cold Chain/Refrigeration
- Crime Labs (State, City, County, Private, etc.)
- Energy Utilities
- Fisheries and Hatcheries
- Food Processors and Co-Ops
- Healthcare (Hospitals & Providers)
- Industrial Equipment Manufacturing
- Laboratories
- Metal Service and Metal Merchants
- Mining
- Motor Vehicle Parts Manufacturing
- Paints/Coatings
- Parks and Pools
- Petrochemical Manufacturing
- Petroleum Refining/Oil Drilling
- Plastics
- Pulp and Paper
- Race Tracks
- Retail Storage and Distribution
- Semiconductors
- Water Filtration
- Wineries



Trench #1 – Ammonia



Target Industries:

- Food & Beverage
- Commercial Refrigeration Storage
- Animal Processing/Packing Plants
- Chilled Water Services
- Metal Treating
- Ag Industry (fertilizer, livestock feed, crops)
- Pools and Water Parks

CFATS Key Info:

Anhydrous: Conc. 1.0%, STQ -10,000 lbs

Ammonia $\geq 20\%$: STQ - 20,000 lbs

Security Issue: Release Toxic

Common Issues & Problems:

- Includes “closed loop” piping and systems, storage tanks, mixing tanks, mixtures
- Applies to Ag facilities using for refrigeration, or as a retailer, distributor or warehouse
- Could affect public access for tours of your site
- Heavily regulated for PSM & RMP by EPA & OSHA (New GDC Enforcement)
- FYI - this can impact your labor agreement, use of contractors and suppliers

Trench #2 – Hydrogen Peroxide

Target Industries:

- Food & Beverage (CIP)
- Water Parks & Pools
- Animal Processing/Packing Plants
- Cosmetics/Haircare
- Fisheries & Hatcheries
- Contract Packaging & Toll Manufacturing of Consumer Products
- Manufacturing of “Environmentally Friendly” Cleaning Products



Common Issues & Problems:

- Many Clean-in-Place (CIP) mixtures contain $\geq 35\%$
- Used for sanitizing & disinfecting process equipment
- Size of containers – bigger is better
- Dilute higher concentration mixtures ASAP for blending operations or cleaning

CFATS Key Info:

Min. Conc.: 35%

STQ: 400 lbs

Security Issue: Theft (EXP/IEDP)

Trench #3 – Propellants & Propane

Target Industries:

- Food & Beverage
- Cosmetics and other personal care facilities
- Contract Packaging & Toll Manufacturing of Consumer Products
- General Consumer Products



CFATS Key Info:

Pentane, Isobutane: 1% conc.

STQ: 10,000 lbs

Security Issue: Release - Flammable

Common Issues & Problems:

- Aerosol-can filling using release-flammable COI mixtures such as butane, pentane, isobutane, DME, propylene & mixtures
- Propane: Count at conc. $\geq 87.5\%$ & STQ = 60,000 lbs
- Mixtures - Apply entire amount of release flammable COI $\geq 1\%$ in mixtures to STQ (other than propane) with NFPA = 4



Trench #4 –Chlorine



Target Industries:

- Food & Beverage
- Animal Processing/Meat Packing Plants/Meat Processing
- Municipal Water Supply
- Textiles
- Mining – metal separation
- Pharmaceuticals
- Pulp and Paper (Also consider COI Chlorine Dioxide)



Common Issues & Problems:

- Chlorine used in many sanitizing and cleaning products, as well as power plants to disinfect cooling water drawn from surface water sources
- Size of containers (dual security threat)
- Can reduce max. onsite to avoid RMP/PSM, but secure for CFATS theft (bolt/lock)

CFATS Key Info:

Min. Conc: 1% and 9.77%

STQ: 1% - 2500 lbs and 9.77% - 500 lbs

Security Issue: Release Toxic/Theft (WME)

Trench #5 – Titanium Tetrachloride

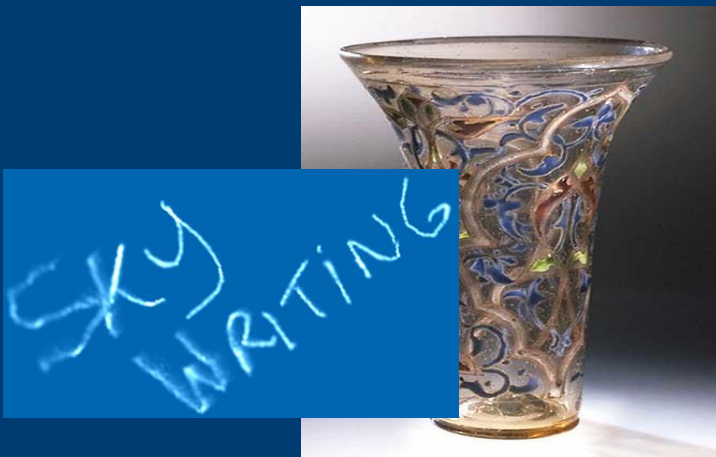


Target Industries:

- Paint & Coatings
- Military & Hollywood (Smoke Screen Products)
- Surface coating operations
- Intermediate for making Titanium metal and Titanium Dioxide (common pigment)
- Glass Manufacture

Common Issues & Problems:

- Used in metal coatings for heat resistance.
- “Tickle” is skywriting ink!
- Container Size is important
- Readily reacts with water and water vapor to “fume” – be aware it could be used in itself for other nefarious purposes



CFATS Key Info:

Conc. 1%, 13.33%, ACG

STQ: 2,500 lbs/45 lbs/APA

Security Issue: Release Toxic/Theft (WME)/Sabotage

Risk-Based Performance Standards



RBPS-8 Cyber



RBPS-10 Monitoring



RBPS-18 Records



RBPS-1 Restrict Area Perimeter



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

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

Personnel Surety – RBPS 12



| Personnel Surety Background Checks |
|---|
| Verify and Validate Identity |
| Check Criminal History |
| Validate Legal Authorization to Work in the U.S. |
| Identify People with Terrorist Ties |

- Personnel Surety includes vetting individuals with access to COI and other sensitive parts of high-risk chemical facilities
 - Risk-Based Performance Standard (RBPS)12 requires certain types of background checks, including recurrent vetting against the Terrorist Screening Data-Base (TSDB)

DHS began implementation of the CFATS Personnel Surety Program in December 2015. Tier 1 and Tier 2 facilities have four ways to implement terrorist screening provisions:

- Verifying credentials through DHS's online tool
- Direct vetting through DHS's online tool
- Using an electronic credential reader, like a TWIC reader
- Visual verification of a credential

More than 7,000 names are currently being vetted through the TSDB

CFATS Reporting (Helpful Hints)



CSAT 2.0 (Online Reporting System) streamlined, much easier and more efficient to use

Top Screen: Tiering and risk is based on this initial notification

- Accuracy of Location - Rural vs Urban
- COI and all container types used for COI storage
- Resubmit if you eliminate or add COI (60 days)

SVA/SSP: “Combined” submittal in CSAT 2.0

- Maintain operational flexibility with tank farms of various products
- Declare Asset as small as you can and not the whole facility (if you can)- easier to protect

Work with the DHS Inspector(s) – many have strong process knowledge and can help with options and ideas to manager cost and disruption



CFATS Reporting (Helpful Hints)



Other Specific lessons we learned include:

- Working with facilities to incorporate and/or modify existing procedures to meet some of the security needs
- Incorporating existing site features (terrain, landscape, fences, etc.) to the extent practicable
- Modifying processes to minimize time COI onsite or at or above threshold concentrations
 - Talk to your supplier(s) – see if they can deliver COI products direct with no storage onsite
 - Consider reformulation of products containing COI but be careful you don't trigger another regulatory issue (FIFRA)



CFATS Enforcement



CFATS violations are divided into specific categories, including, but not limited to:

- Failure to File Violations
- Security Vulnerability Assessment (SVA)/SSP Deficiencies (generally found during the authorization and approval process)
- SVA/SSP Infractions (generally found during Compliance Inspections), and
- Chemical-terrorism Vulnerability Information (CVI) Violations.
- DHS has issued a Civil Penalty Policy for calculating enforcement violations, similar to EPCRA, CAA and RCRA

| Severity of Deficient Measure | Range of Civil Penalty Amounts Per Deficient Measure |
|-------------------------------|---|
| Minor | \$1,000 - \$2,000/day |
| Moderate | \$3,000 - \$6,000/day |
| Major | \$5,000 - \$10,000/day |

Table 1. Applicable fines for severity of a deficiency or infraction

Thank You

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