

Got Chemicals? The State of Play on Chemical Security Regulations

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The webinar will begin shortly, please stand by. The materials and a recording will be sent to you after the event.

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A Trifecta of Chemical Safety and Security Regulations

- OSHA Process Safety Management (PSM): aimed at preventing releases and exposures “inside” the fence (workplace safety)
- EPA Risk Management Program (RMP): aimed at preventing releases and exposures “outside” the fence (public health and environment)
- DHS Chemical Facility Anti-Terrorism Standards (CFATS): aimed at reducing risks associated with a facility’s possession of chemicals of interest (terrorist threats)



The Tie That Binds

- The management of chemical stockpiles
- E.O. 13650 (August 2013)
 - Followed the April 2013 explosion at West Texas Fertilizer Company, and other incidents over the previous decade
 - Directed at strengthening regulatory programs to prevent chemical incidents
 - Also aimed at enhancing agency coordination and sharing of chemical safety and security facility data

OSHA Process Safety Management (PSM)

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PSM Standard (29 CFR 1910.119)

- Promulgated in 1992
- Objective: Protect workers from hazards stemming from uncontrolled release of highly hazardous chemicals (HHC)
- Targets “processes” using HHC > threshold quantity (TQ) or certain flammable gases/liquids
- “Process” defined: “any activity involving a highly hazardous chemical including any use, storage, manufacturing, handling, or the on-site movement of such chemicals, or combination of these activities.”

PSM Standard

- Application to process involving:
 - > TQ of one of 137 HHC (Appendix A)
 - Category 1 flammable gas
 - Flammable liquid, flashpoint < 100°F, >10k lbs
 - Excludes hydrocarbon fuels consumed as workplace fuel (if not part of process using another HHC)
 - Excludes storage in atmospheric storage tanks
- Exceptions: retail facilities; oil or gas well drilling/servicing; unoccupied remote facility



PSM Key Components

- Process Safety Information (process blueprint)
- Process Hazard Analysis (hazard evaluation)
 - Updated at least every five years
- Operating Procedures and Training
- Maintain Mechanical Integrity of Certain Process Equipment
- Management of Change
- Incident Investigation
- Emergency Action Plan
- Compliance Audits (knowledgeable person)
 - Conduct at least every three years

Request for Information



- Published December 9, 2013
- Posed 17 Topics
 - Many from Chemical Safety and Hazard Investigation Board Wish List
 - 5-6 Year Horizon Until Finalized
- “Gap” filling or regulation for regulation’s sake?
- Lurking Agenda:
 - OSHA Desire for Significantly Enhanced Civil and Criminal Penalty Provisions and Tougher Whistleblower Protections

Notable Topics

- Narrowing Exemption for Atmospheric Storage Tanks
- Reactive Chemicals/Hazards
 - Revisiting an old regulatory agenda topic
- Updating Appendix A
 - Including “how” to update in future short of notice-and-comment!
- Recognized and Generally Accepted Good Engineering Practices (RAGAGEP)
 - Requiring evaluation of updates
 - Specifically defining the term

Notable Topics

- Ammonium Nitrate
 - Add to PSM Appendix A, or
 - Revamp Explosives and Blasting Agents Standard
- Applying Mechanical Integrity to All Safety-Critical Equipment
 - Who decides “safety-critical”?
 - Gaps currently enforced via General Duty Clause
- Third-Party Audits

Taking PSM to the Oil Patch

- Currently OSHA Conducts Much Upstream Enforcement Under General Duty Clause
- RFI Poses Adding Drilling and Servicing Operations
- RFI Poses Ending Reprieve for Production Facilities
 - Complete economic impact analysis

EPA's Risk Management Program (RMP)

Overview and Current Developments

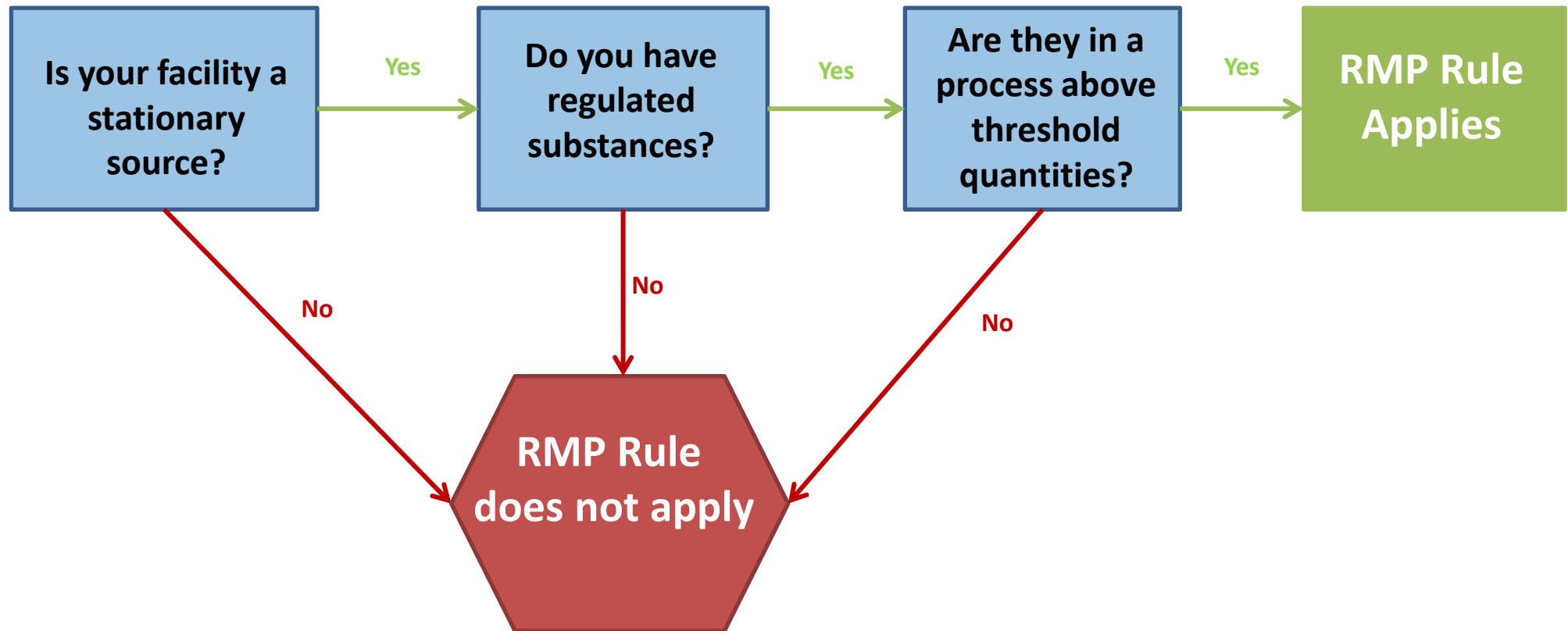
Warren Lehrenbaum

KEY ELEMENTS

RMP Regulations

- **40 C.F.R. Part 68** – Under EPA's RMP regulations covered facilities must:
- Implement a risk management program that includes hazard assessment, prevention, and emergency response elements.
 - Prepare a risk management plan that is registered with EPA, submitted to state and local authorities.

RMP Regulations – Covered Facilities



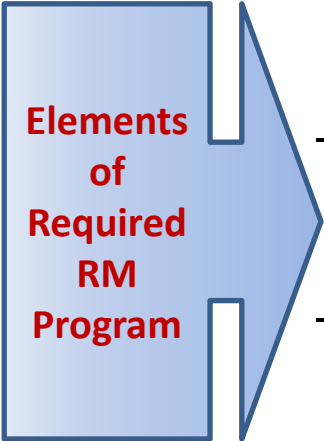
Covered Facilities (cont'd)

- **Stationary Source:** Any buildings, equipment, installations that (i) belong to same industrial group; (ii) under common control; (iii) on contiguous properties; (iv) from which accidental release may occur [40 C.F.R. § 68.3]
- **Regulated Substances:** Substances and thresholds are listed at 40 C.F.R. § 68.130
 - ~80 acutely toxic substances; ~65 flammable substances
 - Also covers mixtures that include any listed flammable if the mixture meets NFPA criteria 4 rating
- **Key Concept: “Process”**
 - Regulated substance contained in a single vessel or interconnected vessels above threshold
 - If multiple unconnected vessels, consider if they are a “co-located” single process (such that the vessels could be involved in a single release)

Facility Requirements

➤ Components of Plan

- Registration information: facility identification, facility contacts, identities of regulated substances, facility's status under other regulatory programs, description of changes to previously-submitted plan
- Hazard assessment information: Worst case and alternative release scenario(s) and impact assessment; 5-year accident history
- Prevention program information: Dates and descriptions of most recent process safety and hazard reviews and inspections/audits, mitigation and monitoring measures; and employee training
- Emergency response program information: Emergency health care measures; emergency response training; procedures for informing public and response agencies if accident occurs



Elements
of
Required
RM
Program

- ## ➤ Must be updated at least every five years (or sooner, if certain triggering events occur)

General Duty Clause

- **CAA § 112(r)(1)** – Applies to owners and operators of stationary sources producing, processing, handling, or storing any ***extremely hazardous substances***
- **Requirements**
 - Identify hazards which may result from accidental releases using appropriate hazard assessment techniques,
 - Design and maintain a safe facility taking such steps as are necessary to prevent releases
 - Minimize the consequences of accidental releases which do occur

ENFORCEMENT

Examples

➤ PharmCo.....	\$164,109
➤ GlaxoSmithKline.....	\$172,900
➤ Western Refining.....	\$187,500
➤ Citgo.....	\$270,000
➤ Suiza.....	\$275,000
➤ Columbus.....	\$685,446
➤ Tyson.....	\$3.95 M
➤ BP.....	\$15 M

Trends

Company	Penalty	Industry Sector	GDC	RMP	Other	Year
PharmCo	\$164,109	Chemical		X	X	2011
GlaxoSmithKline	\$172,900	Pharmaceutical		X		2014
Western Refining	\$187,500	Petroleum	X			2013
Citgo	\$270,000	Petroleum		X		2013
Suiza	\$275,000	Food	X	X		2012
Columbus	\$685,446	Food		X	X	2012
Tyson Foods	\$3.95 M	Food		X		2013
BP	\$15 M	Petroleum	X	X	X	2010

Case Study

➤ Tyson Case Study

- **Anhydrous ammonia releases at multiple facilities**
- **Civil penalty: \$3.95 M**
- **SEP (first responder equipment): \$300,000**
- **Injunctive Relief:**
 - third-party audits
 - testing

EPA'S REQUEST FOR INFORMATION

RFI – Summary



➤ **Published in Fed Reg July 31, 2014**

- EPA solicited comments on all aspects of RMP Rule
- ~99,000 comments submitted; range of stakeholders

➤ **Key topics**

- Revising regulated substances list and TQs
- Additional risk management program elements, including some being considered by OSHA
- Requiring third-party compliance audits
- Inherently safer technology and alternatives analysis

Key RFI Topics (cont'd)

- Drills to test emergency response
- Automated detection and monitoring
- Additional stationary-source location requirements
- Worst case release quantity and off-site consequence analysis
- Public disclosure
- Streamlining RMP requirements

Key Industry Comments



- Opposition to updating regulations at all because there is no evidence that existing RMP rule is inadequate
- Opposition to Inherently Safer Technology (IST) because it is burdensome and potentially counterproductive
- Opposition to adding ammonium nitrate to regulated substances; boost OSHA regulation of blasting agents instead
- Opposition to lowering threshold amounts due to significant costs on smaller companies

Key Industry Comments

- Be cautious when adding reactive chemicals for coverage; defer to OSHA
- Issue guidance regarding existing RMP Rule
- Before adding additional risk management procedures, consider effect and interaction of existing procedures apart from RMP Rule requirements

Chemical Facility Anti-Terrorism Standards (CFATS)

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CFATS Background

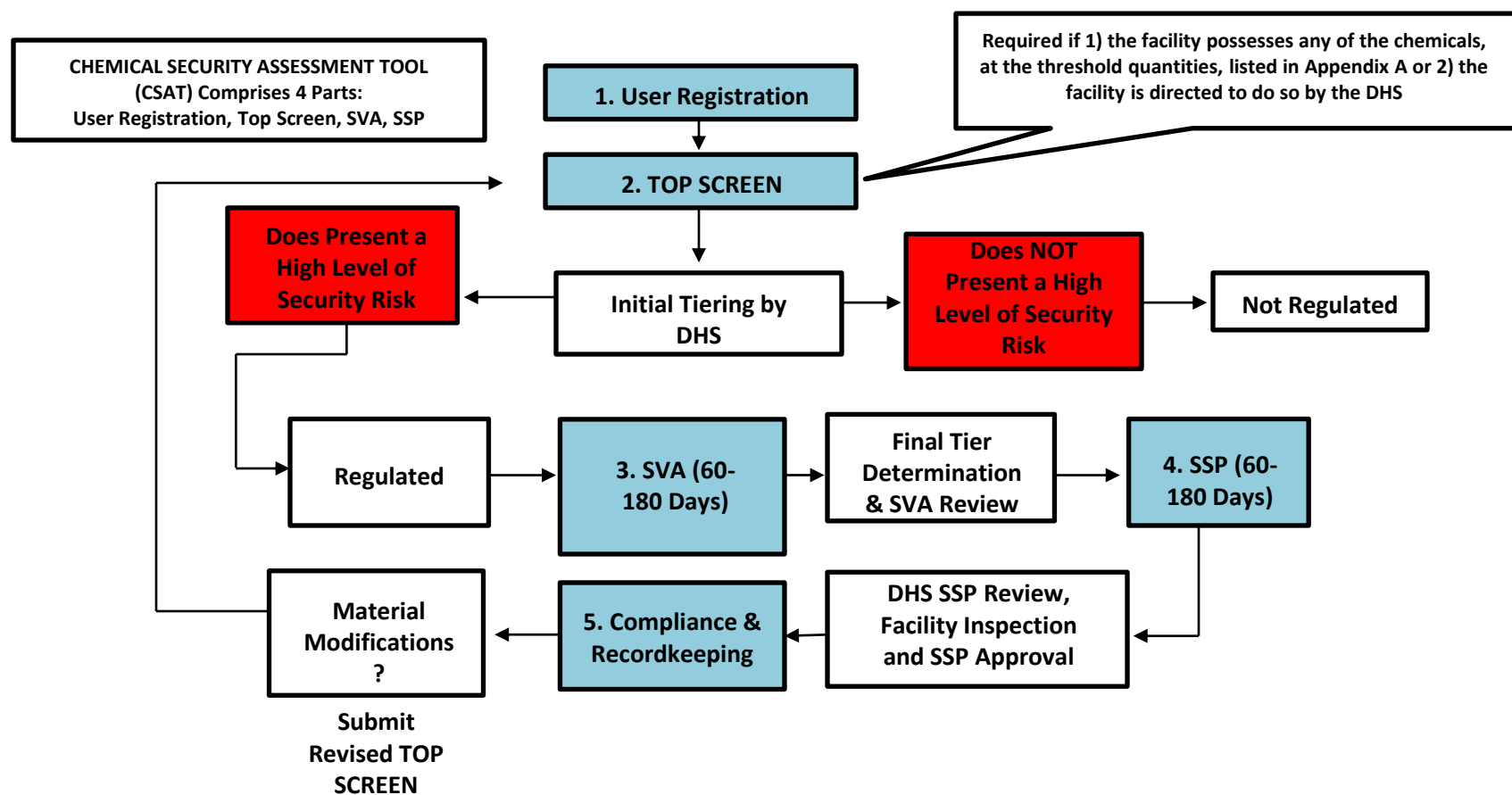
- Section 550 of DHS Appropriations of 2007 required DHS to regulate chemical facilities that present a high level of security risk
- DHS promulgated CFATS rule, which is codified at 6 CFR Part 27
- Congress passed a bill this week to reauthorize CFATS for four years



CFATS SCOPE

- CFATS Statutory Exemptions
 - Maritime Transportation Security Act (MTSA) - Regulated Facilities
 - Public Water Systems
 - DoD Facilities
 - NRC-Regulated Facilities
- Appendix A to CFATS Rule
 - Lists 322 Chemicals of Interest (COI)
 - Establishes Screening Threshold Quantity for Each COI

Overview of the CFATS Process



Compliance to Date



- As of August 2014
 - More than 48,000 facilities with COIs had submitted Top Screens to DHS
 - Of these, DHS categorized approximately 3,986 as high risk, triggering regulation under CFATS
- As of April 2014
 - DHS had preliminarily assigned 121 facilities to Tier 1; 382 to Tier 2; 1,088 to Tier 3; and 2,542 to Tier 4
- Since the program's inception, 3,000 facilities have reduced risk at their facilities enough to "tier out" of the program by reducing, eliminating, or modifying their stores of chemicals

Highlights of Protecting and Securing Chemical Facilities From Terrorist Attacks Act of 2014

- Bipartisan bill waiting for Presidential signature would provide four-year reauthorization of CFATS program (subject to future renewals)
- Current rules would remain effective unless and until DHS acts through rulemaking or guidance
- Establishes two fast-track approval options for SSPs: expedited approval for Tier 3 and 4 facilities and alternative security plan
 - neither requires DHS to implement the options through notice and comment rulemaking
 - expedited approval requires facility to certify compliance under penalty of perjury

Highlights of Protecting and Securing Chemical Facilities From Terrorist Attacks Act of 2014 (cont'd)

- Enhances ability of DHS to identify high-risk chemical facilities that have not submitted Top Screens
- Requires DHS to update risk assessment model that incorporates relevant risk elements (*i.e.*, threat, consequence, vulnerability)
 - does not provide for notice and comment rulemaking
 - requires DHS to maintain records documenting tiering determinations
- Allows streamlined background checks
- Establishes a role for union representatives to participate in security-related decisions

Q&A



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