

# CSAT Top-Screen Survey Application

## User Guide

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Homeland  
Security

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# 1. Introduction

This document is the User Guide for the Chemical Security Assessment Tool (CSAT) Top-Screen Survey Application, an information-gathering application developed by the U.S. Department of Homeland Security (DHS) to help identify high-risk chemical facilities which are subject to the Chemical Facility Anti-Terrorism Standards (CFATS; 6 CFR Part 27) and to determine preliminary tier placements for those facilities. DHS has developed this document to assist facilities in completing the Top-Screen survey and submitting it to DHS.

All examples in this User Guide are illustrative and intended to highlight a specific point. Each facility must carefully consider the unique characteristics and circumstances of its own facility to determine the relevance and appropriateness of each example.

## 1.1 Chemical Facility Anti-Terrorism Standards

On October 4, 2006, President Bush signed the Department of Homeland Security Appropriations Act of 2007, which provides DHS with the authority to regulate the security of high-risk chemical facilities (see Public Law 109-295 § 550). The Chemical Facility Anti-Terrorism Standards (CFATS; 6 CFR Part 27) Interim Final Rule (IFR) was published on April 9, 2007. See 72 Fed. Reg. 17688. The IFR went into effect on June 8, 2007, except for the tentative list of Chemicals of Interest, which DHS published as Appendix A, the DHS Chemicals of Interest (COI) list, to the IFR. DHS accepted comment on the list and published a final Appendix A COI list on November 20, 2007. See 72 Fed. Reg. 65396.

The purpose of 6 CFR Part 27 is to lower the risk posed by certain chemical facilities. 6 CFR Part 27 requires chemical facilities to provide DHS with information to determine whether they are a covered (i.e., high-risk) facility and are therefore required to meet certain security performance requirements. In order to identify high-risk chemical facilities, the Department has identified a COI for preliminary screening based on the belief that such chemicals, if released, stolen, diverted, and/or contaminated, have the potential to create significant human health and/or life consequences.

If a facility possesses a COI that is on the DHS Chemicals of Interest list (6 CFR Part 27, Appendix A) at or above the Screening Threshold Quantity (STQ) for any applicable security issue, the facility must complete and submit a Top-Screen to DHS. 6 CFR § 27.200 of CFATS authorizes DHS to collect information from chemical facilities on a broad range of topics related to the potential consequences of or vulnerabilities to a terrorist attack or incident. The CSAT Top-Screen is one method DHS may use under 6 CFR § 27.200 to gather such information. The Top-Screen is available through CSAT, a secure, Web-based system. After analyzing a facility's Top-Screen information, DHS will make a preliminary determination of whether a facility presents a high level of security risk and therefore must comply with additional requirements of CFATS.

## 1.2 The Top-Screen Process

The first step for a facility to take in determining whether it is covered under CFATS is to review the exemptions listed in 6 CFR § 27.110. Unless a facility is exempt, it must review Appendix A to 6 CFR Part 27 to determine whether it possesses any COI at or above the listed STQ. DHS has listed the security issue(s) associated with each COI; each chemical presents at least one security issue, and some chemicals present multiple security issues. Where there are multiple security issues associated with a chemical, a facility must complete and submit a Top-Screen if it meets or exceeds the STQ for any of the applicable security issues.

If a facility determines that it possesses a COI at or above any applicable STQ, the facility must register with DHS for access to DHS CSAT<sup>1</sup> and complete the Top-Screen Survey Application. Using the information submitted via the Top-Screen Survey Application, DHS will make a preliminary determination whether the facility presents a high level of security risk. **NOTE:** If a Top-Screen submitted by a facility is rejected by DHS for any reason, the facility will need to repeat the screening process, and all of the information must be re-entered.

The CSAT Top-Screen follows a logical, two-step data collection process:

- Step one involves collecting basic facility identification information.
- Step two involves collecting information about the chemicals a facility possesses, manufactures, processes, uses, stores, and/or distributes. Questions cover the following security issues:
  - Release-toxic, release-flammable, and release-explosive chemicals with the potential for impacts within and beyond a facility;
  - Theft of explosive/improvised explosive device precursor (Theft/Diversion-EXP/IEDP) chemicals, theft of weapon of mass effect (Theft/Diversion-WME) chemicals, and theft of chemical weapon/chemical weapon precursor (Theft/Diversion-CW/CWP) chemicals;
  - Sabotage/contamination chemicals; and
  - Chemicals which are critical to Government Mission and National Economy.

The Top-Screen also provides additional questions for each of the following facility types:

- Petroleum refining and
- Liquefied natural gas (LNG) storage (e.g., peak shaving facilities).

Upon completion of the Top-Screen, facilities will be presented with one of two outcomes:

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<sup>1</sup> CSAT is a suite of four applications, including User Registration, Top-Screen, Security Vulnerability Assessment (SVA), and Site Security Plan (SSP), through which the Department will collect and analyze key data from chemical facilities.

- If DHS makes a preliminary determination that a facility is not high-risk, DHS will send a letter to the facility Submitter which states such a determination (see Attachment B for an example of such a letter).
- If DHS makes a preliminary determination that a facility is high-risk, DHS will send a letter to the facility (see Attachment C for an example of such a letter). The letter will notify the facility of:
  - Its preliminary status as a high-risk facility,
  - Its preliminary placement in a risk-based tier pursuant to §27.220(a), and
  - The specific COI and related security issues that need further analysis.

### **1.2.1 Security Vulnerability Assessments**

If DHS makes a preliminary determination that a facility is high-risk, DHS will require the facility to complete a Security Vulnerability Assessment (SVA). A SVA is designed to identify and assess the security of a facility's critical assets in light of the security issues raised by DHS in the preliminary tier determination letter.

Following a facility's submission of the SVA and its analysis by DHS, DHS will either confirm that a facility is high-risk or inform a facility that DHS no longer considers the facility to be high-risk or subject to further regulation under CFATS. For facilities confirmed to be high-risk, DHS will communicate the final facility tier determination and the facilities must develop and implement Site Security Plans (SSPs) that satisfy the Risk-Based Performance Standards (RBPS) enumerated in 6 CFR § 27.230.

## **1.3 Getting Additional Help**

CSAT users may call the CSAT Help Desk with questions regarding the CSAT Top-Screen and other elements of CSAT. The CSAT Help Desk can be reached at 866-323-2957 (toll free) between 7 a.m. and 7 p.m. (Eastern time), Monday through Friday. The CSAT Help Desk is closed for Federal holidays.

## 2. Getting Started

### 2.1 CSAT Registration

Your facility may register to use the CSAT system by filling out a User Registration form at <http://www.dhs.gov/chemicalsecurity>. For assistance in registering to use CSAT, please refer to the CSAT User Registration User Guide, which is available online at [http://www.dhs.gov/xlibrary/assets/chemsec\\_csatuserregismanual.pdf](http://www.dhs.gov/xlibrary/assets/chemsec_csatuserregismanual.pdf). After your facility has registered with DHS to use the CSAT system, your facility will have access to the CSAT Top-Screen Survey Application.

### 2.2 Chemical-terrorism Vulnerability Information

All information entered into the CSAT Top-Screen is Chemical-terrorism Vulnerability Information (CVI). Both the information maintained by DHS (on servers prior, during, and after submission) and the resulting Top-Screen that DHS prepares and shares with a facility are CVI and will be marked accordingly.

Information developed or submitted pursuant to CFATS' authorizing statute is considered CVI, while information developed under **other** statutory regimes or for a facility's own purposes may not be considered CVI (see CFATS IFR, 72 Fed. Reg. 17715). Therefore, some of the original information used by a facility to complete the Top-Screen and held by a facility may not be CVI. Please refer to the CVI Procedures Manual, which is available at <http://www.dhs.gov/chemicalsecurity>, for more details regarding CVI and the protection of chemical facility security information. Examples of what is considered to be CVI—and **not** CVI—include:

- A copy of the Top-Screen (in any media) submitted to DHS is CVI.
- The information residing on DHS servers entered by a facility but not yet submitted to DHS is CVI.
- A printout of a Top-Screen screenshot without information completed by a facility is **not** CVI.

#### 2.2.1 CVI Authorizing Statements

The first screen that you will see upon entering CSAT for the first time is the CVI Authorizing Statements screen (see Picture 2.1).



**CVI Authorizing Statements**

Please read the following information and check the boxes to indicate that you understand and accept these requirements. Additional guidance about Chemical-terrorism Vulnerability Information (CVI), as well as specific training to become a CVI Authorized User, can be found on [www.dhs.gov/chemicalsecurity](http://www.dhs.gov/chemicalsecurity).

I understand that by completing this agreement I will have access to Top-Screen related information which is considered CVI under Section 550 of Public Law 109-295 and 6 CFR § 27.400. This information is exempt from release under the Freedom of Information Act (5 U.S.C. §§ 552, et seq.) and State and local disclosure laws. Except under exigent or emergency circumstances, no part of this CVI may be disclosed to other persons unless they are CVI Authorized Users and have a "need to know," as defined in 6 CFR § 27.400(e). Unauthorized release may result in a civil penalty or other action.

As a chemical facility representative I acknowledge that I may only share CVI with board members, employees, or contractors of this company. I agree to only share CVI with these eligible individuals that have completed the requirements to become an authorized user of CVI.

**Marking:** Ensure documents containing CVI are properly marked on the top and bottom of each page. (See 6 CFR § 27.400(f)). Affix a CVI cover page to the front and back of all documents containing CVI.

**Storage:** When not in your possession, store CVI in a secure container such as in a locked desk drawer or locked container. Unless in an area authorized for open storage of classified material, do not leave the CVI document unattended. Computers and other media used to handle, store or transmit material containing CVI should be protected to prevent unauthorized access or disclosure.

**Transmission:** You may transmit CVI by the following means to a CVI Authorized User with a need to know.

**Hand Delivery:** You may hand carry CVI as long as access to the material is controlled while in transit.

**Email:** If practical and available, encryption should be used to send CVI by email. If encryption is not practical or available, send CVI as an encrypted attachment or password protected attachment and provide the password under separate cover. Do not include CVI in the subject line or body of an email. Do not send CVI to personal, non-employment related email accounts.

**Mail:** CVI may be transmitted by USPS First Class mail or a commercial equivalent. The CVI should be placed under an appropriate cover sheet or in an envelope or container, and then placed in an outer, opaque envelope or container that has no marking on it to identify the contents as CVI. The outer envelope or container must bear the complete name and address of the sender and the addressee who must be an Authorized User with a need to know. The outer envelope must bear the following statement below the return address: "POSTMASTER: DO NOT FORWARD: RETURN TO SENDER."

**Fax:** Secure faxes are encouraged, but not required, for sending CVI. When sending via non-secure fax, coordinate with the recipient, who must be an Authorized User with a need to know, to ensure that the faxed materials will not be left unattended or subjected to unauthorized disclosure on the receiving end.

**Telephone:** A Secure Telephone Unit/Equipment is encouraged, but not required, for verbal transmission of CVI to a CVI Authorized User with a need to know. Use cellular or cordless phones to discuss CVI only in exigent circumstances or if the transmission is encoded or otherwise protected.

**Destruction:** Destruction of CVI should occur when the CVI is no longer needed. Destruction must be in compliance with 6 CFR § 27.400(k) and consistent with 6 CFR § 27.255(b).

**Derivative Products:** Mark any newly created document containing CVI with "Chemical-terrorism Vulnerability Information" on the top and bottom of each page that contains CVI. Mark "(CVI)" beside each paragraph containing CVI. Place a copy of a CVI cover page over all newly created documents containing CVI.

I agree to abide by the above requirements and understand that this agreement only authorizes access to CVI created by the preparation and submission of the CSAT Top-Screen. Access to other CVI will require meeting additional criteria as specified by the Department of Homeland Security.

If you do not accept these requirements, please logoff now by closing your browser.

**Accept**

WARNING: This record contains Chemical-terrorism Vulnerability Information controlled by 6 CFR 27.400. Do not disclose to persons without a "need to know" in accordance with 6 CFR § 27.400(e). Unauthorized release may result in civil penalties or other action. In any administrative or judicial proceeding, this information shall be treated as classified information in accordance with 6 CFR §§ 27.400(h) and (i).

Check Boxes

Picture 2.1: CVI Authorizing Statements

The CVI Authorizing Statements constitute a Non-Disclosure Agreement between DHS and your facility. Acknowledgement and agreement to abide by the CSAT Top-Screen Authorizing Statements suffices to provide users access to the CSAT Top-Screen survey. It also allows DHS to send a CVI letter to the CSAT Top-Screen Submitter and/or Preparer with their facility's preliminary tier designation.

- To show acknowledgement of and agreement with the CVI Authorizing Statements, select the check boxes next to each of the authorizing statements, followed by clicking the [Accept] button at the bottom of the page. **NOTE: All** users are required to abide by the CSAT Top-Screen CVI Authorizing Statements before they are allowed to proceed. If you do not wish to abide by the CVI Authorizing Statements and are not willing to accept the conditions, you will **not** be able to enter the Top-Screen.
- Acceptance of the CVI Authorizing Statements will allow you access to the Top-Screen application. Your access will be limited to CVI created by the preparation and submission of the CSAT Top-Screen. You will **not** be issued a CVI Authorized User Number, and access to other CVI will require meeting additional criteria as specified by DHS. **NOTE:** Access to the CSAT SVA and SSP surveys will be limited to **only** CVI Authorized Users who have completed the CVI training and received a CVI Authorized User Number.

### 2.2.2 CVI Training

The CVI Authorizing Statements briefly summarize the information that is available through the DHS CVI training. Your access to other CVI without limitations on access and disclosure (given a properly determined need-to-know judgment) will require successful completion of the training available at [www.dhs.gov/chemicalsecurity](http://www.dhs.gov/chemicalsecurity). After completing the DHS CVI Training, you will be issued a CVI Authorized User Number. Becoming a certified CVI Authorized User will abrogate the CVI Authorizing Statements embedded within the Top-Screen.

### 2.3 CSAT User Access Roles

A variety of individuals for each facility can be authorized to use CSAT. Each registered individual will be assigned a specific role with access rights and privileges based on that role, unless roles are transferred by the facility through the CSAT system.

CSAT User Role	Description
Preparer	A user who is authorized to enter the data into the CSAT system and can designate the Top-Screen as ready for review by the Submitter. The Preparer is a qualified individual who is familiar with the facility in question. When the Preparer sends the Top-Screen to the Submitter for review, the Preparer will no longer be able to edit the information in the Top-Screen unless the Top-Screen is returned to the Preparer by the Submitter for revision.
Submitter	A user who is designated by the facility to submit the information collected in the CSAT system to DHS in accordance with 6 CFR § 27.200(b)(3). When the Submitter has access to the Top-Screen, he/she may revise the information contained therein.
Authorizer	A user who provides assurance to DHS that the Submitter and Preparer are authorized to complete the CSAT information. The Authorizer is the individual who verifies to DHS that the Submitter and Preparer are authorized to complete the CSAT Top-Screen on behalf of a facility. The Authorizer is allowed to review information in the Top-Screen but not to enter, edit, or submit the information, unless he or she is also the Preparer or Submitter.
Reviewer	A user who is allowed to review information but not to enter, edit, or submit the information. A Reviewer does not have edit or approval privileges and must be invited by a known user from within the Top-Screen. Upon logging in, the Reviewer must agree to all use requirements and to the CVI Non-disclosure Agreement/Authorizing Statement.

Table 2.1: CSAT User Role Descriptions

- It is the responsibility of each facility to organize and manage the individuals and teams of individuals who contribute to its CFATS compliance, particularly during the completion and submission of the Top-Screen.
- The Preparer, Submitter, and Authorizer can be the same person or different individuals. A single individual can have a given role for one or more facilities within a single organization.
- Once the Submitter transmits the Top-Screen to DHS, it is no longer accessible to the facility or its designated Preparer, Submitter, Authorizer, or Reviewer(s).
- For additional information about the CSAT registration process and user roles, please see the CSAT User Registration Guide and Account Management Guides, which are available at [http://www.dhs.gov/xprevprot/programs/gc\\_1169501486197.shtm](http://www.dhs.gov/xprevprot/programs/gc_1169501486197.shtm). The CSAT Help Desk can also provide further information on users and user roles for purposes of completing the Top-Screen.

## 2.4 Top-Screen Resources and Recommendations

Prior to completing the Top-Screen, DHS recommends that each facility read and review the following materials:

- A copy of 6 CFR Part 27 (see 72 Fed. Reg. 17688).
- A copy of the 2007 Appendix A to 6 CFR Part 27, the DHS COI list with STQs (see 72 Fed. Reg. 65396).
- A copy of the downloadable PDF file with Top-Screen questions that may be used as a worksheet.
- A copy of the Chemical-terrorism Vulnerability Information (CVI) Procedures Manual regarding protection of CVI information.

All of these materials, as well as more details on 6 CFR Part 27 and CVI, are available on the DHS Web site, [www.dhs.gov/chemicalsecurity](http://www.dhs.gov/chemicalsecurity). Furthermore, DHS recommends that facilities gather the following information before completing the Top-Screen:

- North American Industrial Classification System (NAICS) codes.
- Data Universal Numbering System (DUNS) numbers, which are available at <http://www.dnb.com>.
- Latitude and longitude of the center of the facility.
- Parent company name(s) and DUNS number(s).
- Joint venture name(s) and DUNS number(s).
- Host/tenant facility name(s).
- Environmental Protection Agency Risk Management Plan (EPA RMP) identifier numbers for the facility and host/tenant facilities, if applicable. EPA RMP regulation is located at 40 CFR, Part 68.
- Number of employees and full-time resident contractors.

- Chemical inventory information, including:
  - The names and quantities of all DHS COI that are manufactured, processed, used, stored, or distributed at the facility; and
  - The location of the Area of Highest Quantity, a 170-foot radius around the area where the greatest amount of the chemical with a release concern is located.
- The most recent EPA RMP submittal, including the EPA identifier number, covering processes, inventories of chemicals, and off-site consequence analyses.
- A copy of RMP\*Comp to calculate information required for chemicals with a toxic-release concern. RMP\*Comp is a software application used to perform the off-site consequence analysis required under the RMP rule. This resource will be needed for information related to toxic-release chemicals regardless of whether the facility itself is subject to the EPA RMP regulation. RMP\*Comp can be downloaded at [http://www.epa.gov/emergencies/content/rmp/rmp\\_comp.htm](http://www.epa.gov/emergencies/content/rmp/rmp_comp.htm).
- Records used to prepare the annual Tier 2 report under the Emergency Planning and Community Right-to-Know Act (EPCRA). These records will include inventory and storage locations for various chemicals at a facility.
- Records used to comply with the Chemical Weapons Convention (CWC).
- Financial, sales, and marketing information that will be helpful in reporting production values, market share, capacity utilization rates, and product applications for economically critical and mission critical chemicals, if applicable. Census forms such as the *Annual Survey of Manufacturers* and the *Survey of Plant Capacity Utilization* will also be helpful if the company or facility has been asked to complete them previously. These forms are available from the U.S. Census Bureau at <http://bhs.econ.census.gov/BHS/index.html>.

### 2.4.1 Top-Screen Personnel Support

For some facilities, the following personnel may be able to provide facility information in the areas noted in the preparation and submittal of the CSAT Top-Screen:

Personnel Type	Top-Screen Areas
Process Safety personnel	RMP inventories and related information and documents
Environmental personnel	Inventories of chemicals
Shipping/Receiving/Logistics personnel	Inventories, sales and shipping information
Research and Development personnel	Amounts of COI used in pilot plants and/or laboratories at the facility

Personnel Type	Top-Screen Areas
Marketing/Sales personnel	Mission critical and economically critical information, as well as end-use(s) for COI
Engineering personnel	Replacement costs, capacities, and throughputs

**Table 2.2: Personnel Support for Top-Screen Submission**

## 3. Using CSAT

### 3.1 Accessing CSAT

After you have completed the CVI Authorization and have logged into CSAT, the following screen will appear:

Choose a survey to edit or review.

Chemical Facility  
123 Main Street  
Argonne, IL 60439  
Facility ID: 24107

[Update Facility Info](#)

[Manage User Roles](#)

Survey Type	Status	Start Date	End Date	Survey ID	Summary Report
Top-Screen	New			34898	<a href="#">Edit/Review</a>

Picture 3.1: CSAT Survey List Screen

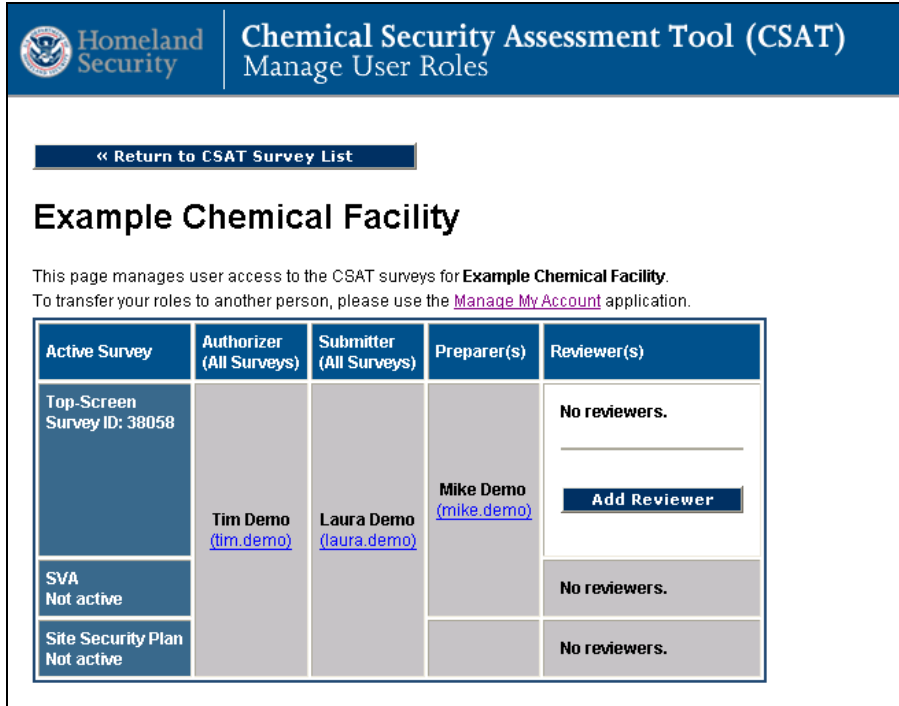
The **CSAT Survey List** screen lists each registered facility to which you are assigned and the associated surveys to which you have access, including Top-Screens. This screen presents you with three options:

- 1) Accessing the Top-Screen application for a given facility;
- 2) Managing user roles for any of the facilities displayed; and/or
- 3) Updating facility information with a new name or address.

**NOTE:** Your CSAT session will time out after 20 minutes if the system is not in use. If that happens, you will need to log back in to CSAT to restart you session. Data you have saved will not be lost, and your new session will open on the same screen where your previous session ended.

### 3.2 Managing Users

Submitters, Preparers, and Authorizers can add or delete Reviewers to a Top-Screen survey. To add new users, click the [Manage User Roles] button on the left side of the **CSAT Survey List** screen. The following screen will appear:

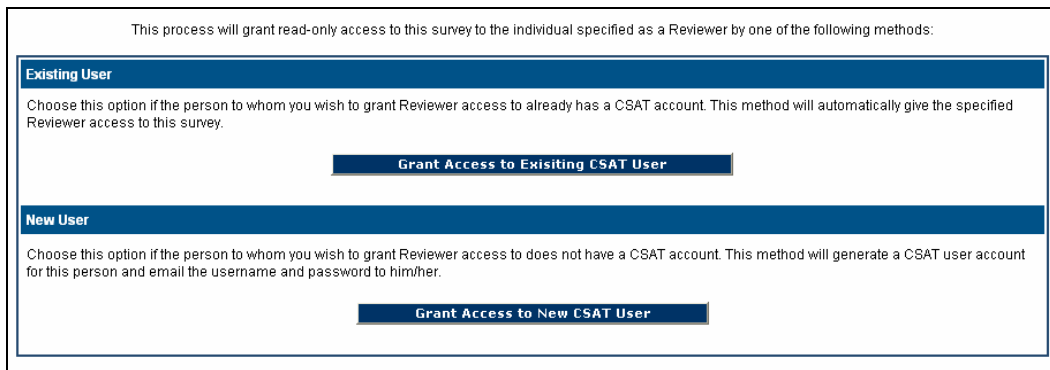


Picture 3.2: CSAT User Management Screen

### 3.2.1 Adding/Deleting Reviewers

A Reviewer with read-only privileges may be added to each registered facility to which you are assigned. Reviewers added to the Top-Screen survey will have their privileges to view a survey for a specific facility carried over into the related SVA and SSP for that same facility. **NOTE:** Authorizers, Submitters and Preparers **cannot** grant themselves Reviewer privileges. Doing so will disable **all** other privileges.

- To add a Reviewer, click the [Add Reviewer] button to the right of the survey for which you would like to add the Reviewer. A new screen will appear:



Picture 3.3: CSAT Reviewer Access Screen

The **CSAT Reviewer Access** screen will ask whether you would like to grant reviewer access to an existing CSAT user or to a new CSAT user. Select the appropriate choice by clicking the appropriate button—[Grant Access to Existing CSAT User] or [Grant Access to New CSAT User]—and entering the requested information.

- To delete a reviewer, click the [Delete] button.
- When you are finished, click the [Return to CSAT Survey List] button to return to the **CSAT Survey List** screen.

### 3.3 Updating Facility Data

To update facility information, including changing facility name or address, click the [Update Facility Info] button on the **CSAT Survey List** screen. The **Update Facility Information** screen will appear.

Register a  
New Facility  
Command

**Update Facility Information**

Use the form below to make changes to this facility's name, location, or other information. Do not change this facility's information to that of a different facility. If you need to add a new facility, [register a new facility](#).

**Facility Address**

Facility Name   
▲ Provide the name of the facility. The name must be specific to the facility; if the facility is part of a large corporation, the name may be the corporate name plus the location (for example, 'ABC Oil/Refining - Hightown Plant').

Alternate Facility Name    
▲ Provide alternative names under which the facility may be known.

Street Address   
▲ Enter the street address of the facility's physical location. [Note: This may be different from the mailing address.] Use local street and road designations, not post office or rural box numbers.

Street Address (continued)

Street Address (continued)

City   
▲ Enter the city of the facility's physical location. [Note: This may be different from the mailing address.]

State   
▲ Select the state of the facility's physical location. [Note: This may be different from the mailing address.]

ZIP Code   
▲ Enter the ZIP Code (including the 4 digit extension, if applicable) of the facility's physical location. For example, XXXXX or XXXXX-XXXX are valid ZIP Code formats. [Note: This may be different from the mailing address.]

County    
▲ Provide additional county names in which this facility is located.

Picture 3.4: Update Facility Information Screen

- When you are finished updating your facility's information, click the [OK] button on the bottom of the screen to save your updates.
- To leave the screen **without** saving your updates, click the [Cancel] button on the bottom of the screen.
- **NOTE:** Do **not** use this screen to enter a new facility. If a new facility needs to be registered, click the [register a new facility](#) link at the top of the screen.

You can also access the **Update Facility Information** screen while using the Top-Screen application. Please see Section 4.1 for more details.



## 3.4 Top-Screen Navigation

### 3.4.1 Navigation Buttons

You can navigate within the Top-Screen application by using the [Next] and [Back] buttons on the screen.



Picture 3.5: Navigation Buttons

- Using the [Next] and [Back] buttons will automatically save the information that you entered on any given page within the application.
- If you have entered information on one screen of the Top-Screen but do not intend to go to another screen, click the [Save] button to retain the information.
- **NOTE:** Do *not* use the [Back] button (or arrows) in your Web browser to navigate through the Top-Screen. Using your browser's navigation buttons can result in lost data.

### 3.4.2 Top-Screen Navigation Menu

After you complete the **General** section of the Top-Screen, a navigation menu will appear on the left side of the screen, as seen in Picture 3.6.



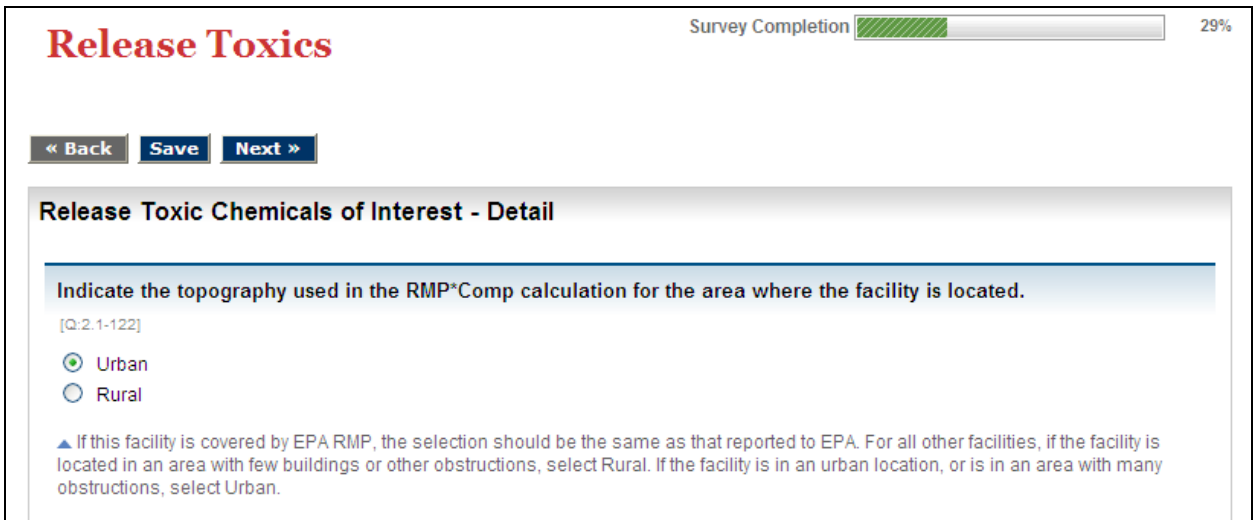
Picture 3.6: Top-Screen Navigation Menu

You can navigate through the Top-Screen by selecting the desired topic in the **Top-Screen Navigation Menu**. **NOTE:** You can *only* select the menu commands that are displayed in **bold blue text**.

### 3.4.3 Progress Bar

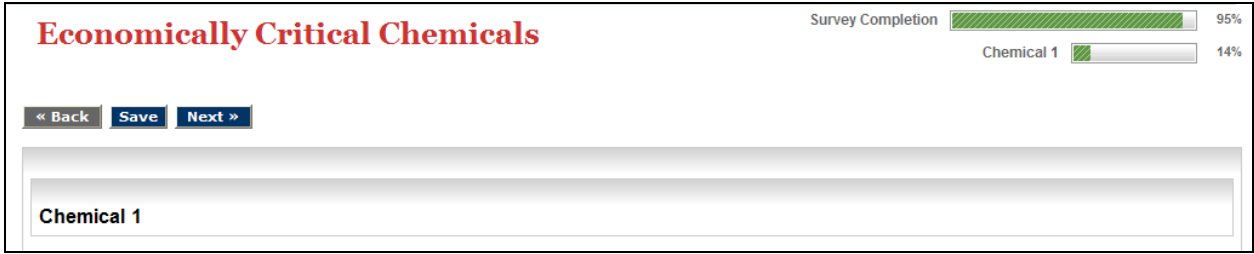
In the upper right corner of each screen is a green Progress Bar indicating the percentage of a survey that is complete (see Picture 3.7). If the user returns to a previously completed section, the progress bar shows a new, recalculated amount, with the updated percent complete.

The percentage calculations are adaptive, in parallel with the survey, so the Progress Bar changes each time the user makes a survey response. When the user changes the survey, the Progress Bar illustrates a revised total Survey Completion percent that is aligned with the robust survey questions. As a direct result of the answers given, the proportion shown is based on survey questions, including those that may be added or subtracted. The corresponding new total will be reflected in the percentage displayed in the Progress Bar.



**Picture 3.7: Survey Completion Progress Bar**

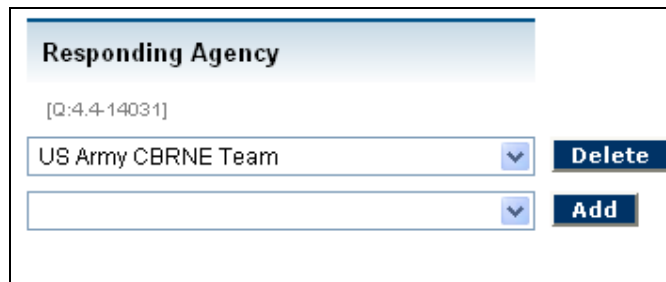
A second Progress Bar appears under the main Survey Completion Progress Bar on screens that have questions about specific subtopics within the survey, such as economically critical chemicals. Picture 3.8 shows an example of the second Progress Bar indicating the percentage of information that is complete about the subtopic.



Picture 3.8: Survey Completion Progress Bar and Subtopic Completion Bar

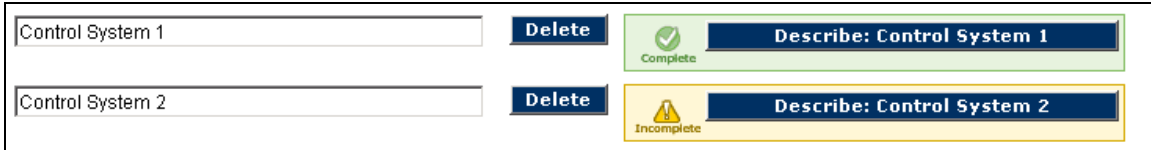
### 3.5 Entering Top-Screen Data

- On some screens, you will need to enter additional text into text boxes to complete the response to a question. When you are finished entering text, use the [Add] button next to the text box to save your information. If you decide to empty a text box of the text you have entered, use the [Delete] button next to the text box. See Picture 3.9 for an example.



Picture 3.9: Add and Delete Buttons

- On screens where further explanation of an item is required, a [Describe] button is provided. Click the button to answer additional questions specific to that item. At the conclusion of these additional questions, you will be asked to select a check box to verify that the description you provided is complete. When you indicate that the questions are complete, you will be returned to the original list of items.
  - If you marked the item as being complete and all required questions were answered for that item, the item will be displayed with a green **Complete** icon.
  - If you do **not** check the box to indicate that the questions are complete, or if any required questions were not answered, the item will be displayed with a yellow **Incomplete** icon.



Picture 3.10: Description Buttons and Icons

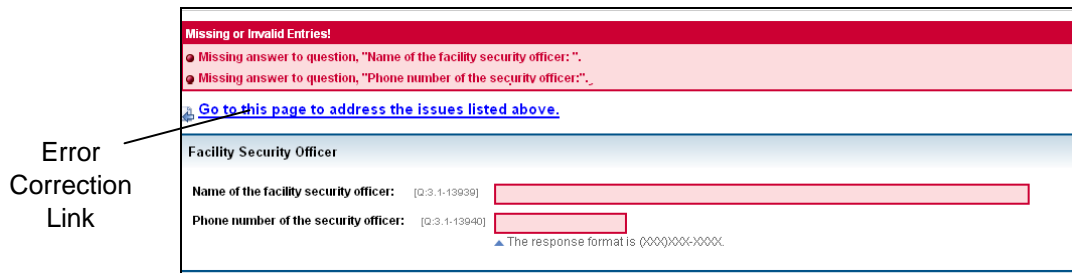
### 3.5.1 Saving Data

All of the information you enter into the Top-Screen is saved when you click the [Save] button, or when you click either the [Next] or [Back] button. You can exit and return to CSAT multiple times until your Top-Screen is complete; the information that has been saved during the previous session will be available to you upon re-entry into the Top-Screen.

### 3.5.2 Validating Data

Data validation ensures that you have entered your information in the correct format (e.g., that a phone number is numeric and formatted correctly). The system performs some basic data validation before allowing a user to move to another screen. The user can perform a more thorough data validation by selecting the **Validate Report** option on the **Top-Screen Navigation Menu**, as seen in Picture 3.6. The **Validate Report** option is also done automatically before Top-Screen submission.

Using the **Validate Report** option provides a more complete information formatting review. A **Validate Report** error message will be displayed if required data input fields are empty or completed incorrectly, and you will be allowed to return to the error and correct it. For example, an error message will be displayed if the name of the facility is not entered (see Picture 3.11). The link provided on the error message will direct you to the input area for correction.



Picture 3.11: Validate Report Error Message

**NOTE:** Data validation is performed **only** for logic and basic errors. Therefore, you should not expect the **Validate Report** option to ensure that your Top-Screen has been completed without errors. Your Submitter is responsible for submitting accurate and correct information to the best of his/her knowledge.

## 4. General Facility Information

All facilities completing the Top-Screen must begin by completing the **General** section, which collects basic facility information. On the basis of the information input into the **General** section, the Top-Screen will verify whether your facility is statutorily exempt from CFATS regulations.

### 4.1 Updating Facility Information

The first screen in the **General** section allows you to review and update your facility's information. Click the [Update Facility Info] button at the bottom of the screen to edit the address and provide other facility information. The table below provides more information on how to update facility information.

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**General** Survey Completion

[« Back](#) [Save](#) [Next »](#)

### Facility Information

Review the facility information shown below. If the name or address information is incorrect or incomplete, click the *Update Facility Info* button. If the *Facility Coordinates* are incorrect, contact the Help Desk.

### Facility Information

Facility Name Laura's Demo Facility 2  
Facility Location Address 123 Main Street  
Facility Location Address (continued) [blank]  
Facility Location Address (continued) [blank]  
Facility Location City Argonne  
Facility Location State IL  
Facility Location ZIP Code 60439

### Parent Company

Parent Company 1 Name [blank]  
Parent Company 1 DUNS [blank]  
Parent Company 2 Name [blank]  
Parent Company 2 DUNS [blank]

If a facility does not have a parent company or is not owned or operated by a joint venture, please describe the facility's ownership situation.  
Describe the facility's ownership. [blank]

### Co-located Entities

Specify if the facility is a host to a co-located tenant facility, is a co-located tenant facility itself, or if this is not applicable.

Facility is host to a co-located tenant facility  
 Facility is a co-located tenant facility  
 Not applicable

If the facility is host to a co-located tenant facility or is a co-located tenant facility, please provide the name and EPA RMP ID for each host/tenant facility below.

### Security Vulnerability Assessment (SVA)

Has a security vulnerability assessment been conducted for this facility?  
 Yes  
 No

▲ A Security Vulnerability Assessment (SVA), enables the identification of security hazards, threats, and the evaluation of security countermeasures and vulnerabilities.

WARNING: This record contains Chemical-terrorism Vulnerability Information controlled by 6 CFR 27.400. Do not disclose to persons without a "need to know" in accordance with 6 CFR § 27.400(e). Unauthorized release may result in civil penalties or other action. In any administrative or judicial proceeding, this information shall be treated as classified information in accordance with 6 CFR §§ 27.400(n) and (l).

Picture 4.1: Top-Screen General Section Screen

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Top-Screen Data Field/Question	Data Field/Question Details
Facility Information	<ul style="list-style-type: none"> <li>• <b>Facility Name:</b> The name must be specific to your facility. If your facility is one of a corporation’s multiple facilities, the name should be the corporate name and the location (e.g., “ABC Oil Refining — Hightown Plant”).</li> <li>• <b>Alternative Facility Name:</b> Provide any alternative name(s) by which your facility may be known (e.g., “Green Street Facility” or “Downtown Facility”). If your facility has no alternative name, leave this field blank.</li> <li>• <b>Facility Location Address:</b> Enter your facility’s address for its physical location, including the street, city, state, ZIP code (with the four-digit extension, if applicable), and county. This address might not be the same as your facility’s mailing address. Use local street and road designations, not post office or rural box numbers.</li> </ul>
Parent Company	<p>Enter the name and Dun and Bradstreet (DUNS) number of the corporation(s) or other business entity/entities (if any) that control at least 50 percent of the voting stock of the company that owns or operates the facility.</p> <ul style="list-style-type: none"> <li>• If a facility is owned by a joint venture, enter the name and DUNS number of the first of the two major owners.</li> <li>• If a facility does not have a parent company or is not owned or operated by a joint venture, leave these fields blank and complete the <b>Describe the facility’s ownership</b> text box provided.</li> </ul>
Co-located Entities	<p>Choose the appropriate description of the facility’s relationship to other entities, operations or businesses (if any) on its property (i.e., hosts a tenant on-site; is a tenant on another entity’s facility, or is the sole occupant of the property). A facility that is co-located shares a site with another company’s facility through either a host or a tenant agreement.</p> <ul style="list-style-type: none"> <li>• If a facility does not share a site with another company’s facility, it is the sole tenant and you should select the <i>Not applicable</i> option button.</li> <li>• If a facility is host to a co-located tenant facility or is a co-located tenant facility, please provide the name and EPA RMP ID for each host/tenant facility. Add additional rows if necessary by clicking the [Add] button.</li> <li>• If the facility does not share its property with another facility, leave this field blank.</li> </ul>

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Top-Screen Data Field/Question	Data Field/Question Details
Security Vulnerability Assessment (SVA)	<p>An SVA enables the identification and evaluation of security hazards, threats, countermeasures, and vulnerabilities.</p> <ul style="list-style-type: none"> <li>• If an SVA has been conducted for your facility, select the Yes option button and enter the methodology used for the SVA.</li> <li>• For facilities that have conducted an SVA previously, enter the date when the most recent SVA was completed at the facility. Use the following date format: mm/dd/yyyy (e.g., May 1, 2006 is entered as 05/01/2006).</li> </ul>
Facility NAICS	<p>Provide the five- or six-digit NAICS code that corresponds most closely to the primary activity of your facility as a whole. The first three digits of the code define a major business sector (e.g., 325 represents <i>Chemical Manufacturing</i>), and the last two or three digits indicate an establishment's specialty within the major sector (e.g., 325131 represents <i>Inorganic Dye and Pigment Manufacturing</i>). NAICS codes are maintained by the U.S. Census Bureau, and they can be found on its Web site at <a href="http://www.census.gov/epcd/naics02/">http://www.census.gov/epcd/naics02/</a>.</p>
Facility DUNS	<p>Provide the facility's nine-digit DUNS number. This number is a unique identifier that allows facility information to be cross-referenced with other business information. If a facility has a DUNS number, it should be available from the company's financial officer or corporate headquarters. It can also be located through the DUNS Web site at <a href="http://www.dnb.com">http://www.dnb.com</a>.</p>
EPA RMP Facility ID	<p>If a facility conducts EPA RMP-covered processes, fill in the unique 12-digit number assigned to the facility by the RMP Reporting Center. The RMP Reporting Center includes this number in the acknowledgment letter to the facility. If a facility does not operate an RMP-covered process, leave this field blank.</p>
Owner Name	<p>Enter the name of the person or entity that owns the facility. This may be a person, company, cooperative, state, municipality, or other entity. It may or may not be the same as the name entered for the facility operator; if the owner and operator are the same, enter the same information in both data fields.</p>
Operator Name	<p>Enter the name of the person or entity that is responsible for the daily operations of the facility. This may be a person, company, cooperative, state, municipality, or other entity. It may or may not be the same as the name entered for the facility owner; if the owner and operator are the same, enter the same information in both data fields.</p>
Number of Full Time Employees	<p>Enter the maximum number of employees. Provide the number of full-time (or resident) contractors at the facility at any given time, including shift changes. Do <b>not</b> include part-time or short-term workers, such as those who are brought in for turnarounds or construction, when determining this number. Do not use commas when entering data.</p>



Top-Screen Data Field/Question	Data Field/Question Details
Facility Coordinates	Please verify that the latitude/longitude coordinates are correct. Latitude and longitude cannot be changed on this screen; please contact the CSAT Help Desk to modify incorrect latitude and/or longitude information.

- When you are finished updating your facility’s information, click the [OK] button on the bottom of the screen to save your updates.
- To leave the screen **without** saving your updates, click the [Cancel] button on the bottom of the screen.

**NOTE:** Special Handling of the Owner and Operator Names. The Owner and Operator Names, like all data in the Top-Screen, can be entered and updated as needed while a facility completes an initial Top-Screen. Once a facility’s initial Top-Screen has been submitted to DHS the ability to edit the Owner and Operator fields becomes restricted. After submission only one of the fields may be edited; once changed the other field will become uneditable. For further clarification or help with updates, please call the Help Desk.

## 4.2 Facility Description

This section of the Top-Screen is designed to collect information that will provide DHS with a better understanding of your facility's type and its surrounding environment.

Top-Screen Question	Question Details
Choose the facility type that best describes your facility.	Use the drop-down list box to select a facility type. The options include: <ul style="list-style-type: none"> <li>• Petroleum refining;</li> <li>• LNG storage (e.g., peak shaving facility); and</li> <li>• Chemical manufacturing, use, storage, and distribution (e.g., any public or private facility that manufactures, processes, uses, stores, or distributes chemicals). This type of facility can range from a large petrochemical manufacturing facility to a facility that uses anhydrous ammonia for refrigeration.</li> </ul>

**NOTE:** All facilities, regardless of type, **must** answer the questions related to chemical manufacturing, processing, use, storage, and distribution.

## 4.3 Facility Regulatory Mandates

The next set of questions in the **General** section relates to the statutory exemptions from Section 550 of the DHS Appropriations Act of 2007 (P.L. 109-295), which DHS has incorporated into the regulation at 6 CFR Part § 27.110.

Top-Screen Question	Question Details
MTSA-Regulated Facilities	<ul style="list-style-type: none"> <li>• If your entire facility is regulated pursuant to the Maritime Transportation Security Act of 2002 (MTSA), Public Law 107-295, as amended, select <b>Yes</b> and follow the instructions to complete and exit the Top-Screen. MTSA facilities are exempt from CFATS.</li> <li>• If a portion of your facility is regulated pursuant to MTSA and a portion of your facility is not</li> </ul>

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Top-Screen Question	Question Details
	<p>regulated pursuant to MTSA, select <i>Partially</i> and continue to complete the Top-Screen for the non-MTSA portion of the facility.</p> <ul style="list-style-type: none"> <li>• If your facility is not regulated pursuant to MTSA, select <i>No</i> and continue to complete the Top-Screen.</li> <li>• See the preamble to 6 CFR Part 27 for further information about facilities that may be regulated under MTSA. More information about MTSA is available at <a href="http://www.uscg.mil/HQ/G-M/MP/mtsa.shtml">http://www.uscg.mil/HQ/G-M/MP/mtsa.shtml</a>.</li> </ul>
Public Water System	<ul style="list-style-type: none"> <li>• If your facility is a Public Water System as defined by Section 1401 of the Safe Drinking Water Act, Public Law 93-523, as amended, select <i>Yes</i> and follow the instructions for completing and exiting the Top-Screen.</li> <li>• If your facility contains a Public Water System as defined by the Safe Drinking Water Act, but also contains components that are not covered by that definition, select <i>Partially</i>, and continue to complete the screen for the portion of the facility not defined under the Safe Drinking Water Act.</li> <li>• If your facility is not a Public Water System as defined under the Safe Drinking Water Act, select <i>No</i> and continue to complete the Top-Screen.</li> <li>• More information about the Safe Drinking Water Act is available at <a href="http://www.epa.gov/safewater/sdwa/">http://www.epa.gov/safewater/sdwa/</a>.</li> </ul>

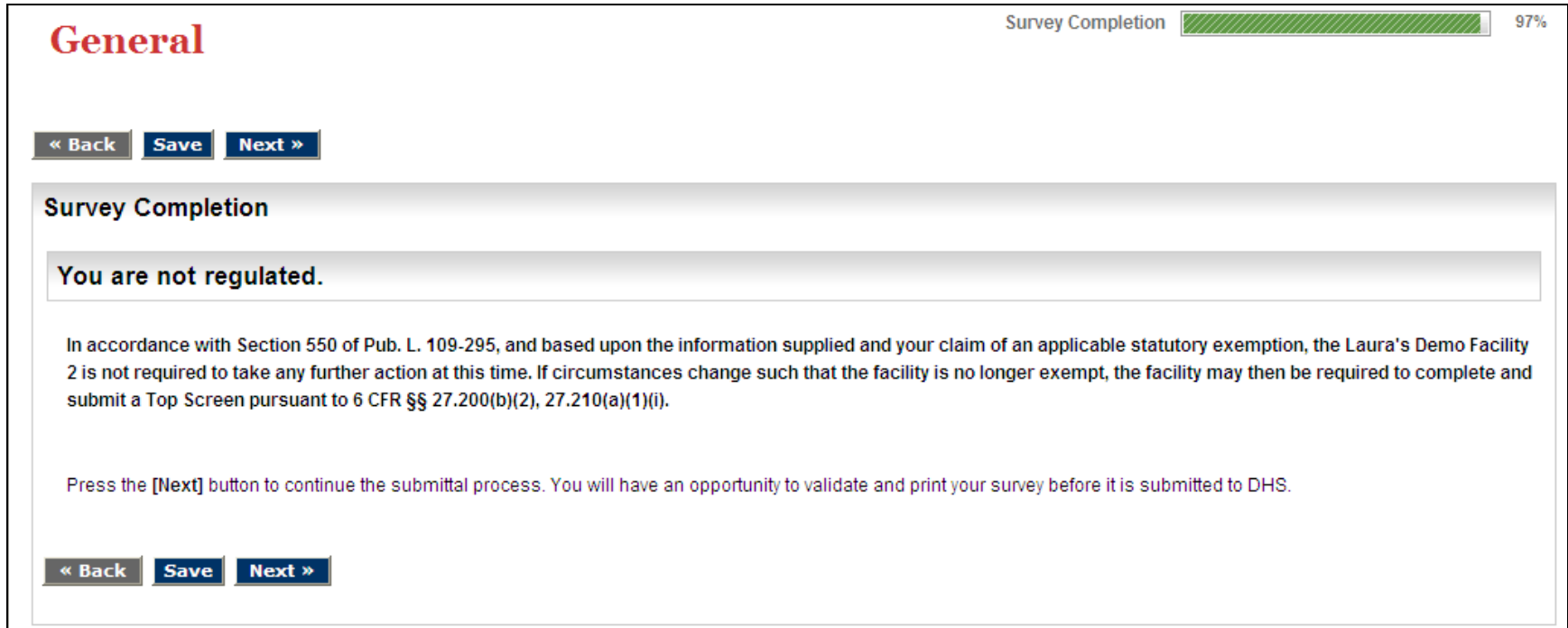
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Top-Screen Question	Question Details
Treatment Works	<ul style="list-style-type: none"> <li>• If your facility is a Treatment Works as defined in Section 212 of the Federal Water Pollution Control Act, Public Law 92-500, as amended, select <i>Yes</i> and follow the instructions for completing and exiting the Top-Screen.</li> <li>• If your facility contains a Treatment Works as defined by the Federal Water Pollution Control Act but also contains components that are not covered by that definition, select <i>Partially</i> and continue to complete the screen for the portion of the facility not so defined under the Federal Water Pollution Control Act.</li> <li>• If your facility is not a Treatment Works as defined under the Federal Water Pollution Control Act, select <i>No</i> and continue to complete the Top-Screen.</li> <li>• For the definition of Treatment Works in Section 212, see <a href="http://epw.senate.gov/water.pdf">http://epw.senate.gov/water.pdf</a> (page 80).</li> <li>• For more information on the Federal Water Pollution Control Act (commonly known as the Clean Water Act), see <a href="http://www.epa.gov/lawsregs/laws/cwa.html">http://www.epa.gov/lawsregs/laws/cwa.html</a>.</li> </ul>
Department of Defense-Owned or Operated Facility	<ul style="list-style-type: none"> <li>• If your facility is owned or operated by the U.S. Department of Defense, select <i>Yes</i> and follow the instructions on completing and exiting the Top-Screen. Facilities owned and operated by the U.S. Department of Defense may include military bases.</li> <li>• If your facility is not owned or operated by the Department of Defense, select <i>No</i> and continue to complete the Top-Screen.</li> </ul>
Department of Energy	<ul style="list-style-type: none"> <li>• If your facility is owned or operated by the U.S. Department of Energy, select <i>Yes</i> and follow the instructions on completing and exiting the Top-Screen.</li> <li>• If your facility is not owned or operated by the Department of Energy, select <i>No</i> and continue to complete the Top-Screen.</li> </ul>

Top-Screen Question	Question Details
<p style="text-align: center;">Nuclear Regulatory Commission</p>	<p>DHS applies this statutory exemption on facilities where the Nuclear Regulatory Commission (NRC) already imposes significant requirements and regulates facility safety and security (e.g., a power reactor holding a license under 10 CFR Part 50, a special nuclear material fuel cycle holding a license under 10 CFR Part 70, or facilities licensed under 10 CFR Parts 30 and 40 that have received security orders requiring increased protection).</p> <ul style="list-style-type: none"> <li>• If a facility is regulated by the NRC, it is exempt from CFATS under the NRC exemption. The facility should answer <i>Yes</i> and follow the instructions on completing and exiting the Top-Screen.</li> <li>• If a facility possesses only small radioactive sources for chemical process control equipment, gauges, or dials, it is not exempt from CFATS under the NRC exemption. The facility should answer <i>No</i> and continue to fill out the Top-Screen.</li> <li>• If a facility contains a facility or portion of a facility which is regulated by the NRC to govern the safety and security of the facility but also contains a facility or portion of a facility which is not regulated by the NRC, the facility should answer <i>Partially</i> and continue to fill out the screen for the portion of the facility not so regulated by the NRC.</li> </ul>

### 4.3.1 Statutory Exemptions

- If your facility answers *Yes* to any of the **Facility Regulatory Mandates** questions, it is exempt from CFATS regulation and you may complete and exit the Top-Screen without providing any additional data.
- Click the [Next] button on the **Survey Completion** screen (see Picture 4.2) and follow the instructions for completing and exiting the Top-Screen. See Section 8 for instructions on reviewing, validating, printing, and submitting the Top-Screen.



Picture 4.2: Survey Completion Screen for Regulation-Exempt Facilities

## 4.4 EPA RMP Facility Identifier

After you have answered the **Facility Regulatory Mandates** questions and your facility is still subject to CFATS regulations, answer the following question:

Top-Screen Question	Question Details
Does the facility operate any	Select <i>Yes</i> or <i>No</i> . Program 1, 2, and 3 processes are defined under the RMP rule and denote the

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Top-Screen Question	Question Details
U.S. Environmental Protection Agency Risk Management Plan (EPA RMP)-covered process(es) — Program 1, 2, or 3?	relative level of risk from an accidental release associated with the process (and hence the facility). A Program 1, 2, or 3 designation establishes the regulatory requirements for which the facility/company must comply. For more information on EPA RMP, see 40 CFR 68.10(b), (c), and (d), or Chapter 2 of EPA's General Guidance for Risk Management Programs (40 CFR 68). Additional information can be found at <a href="http://www.epa.gov/emergencies/content/rmp/index.htm">http://www.epa.gov/emergencies/content/rmp/index.htm</a> .

Petroleum Refineries and LNG facilities will be directed to specific facility questions (see Section 5 – Petroleum Refineries and Section 6 - LNG) and all other facilities will continue to the questions regarding DHS COI in 6 CFR Part 27 Appendix A (see Section 7).

## 5. Petroleum Refineries

The following questions must be answered if the facility type selected in Question 1.1-65 was petroleum refining. These petroleum refinery-specific questions may assist DHS in identifying those chemicals and facilities that may be critical to Government Mission and National Economy, as well as inform DHS as to the potential a facility could have to critical Government Mission and National Economy impacts. After completion of the petroleum refinery-specific questions, a series of standard questions will be asked about chemicals that may be present at your facility at or above their STQs. The CSAT system will skip this group of questions for all other facility types.

### 5.1 Refinery Capacity

Top-Screen Question	Question Details
Production Capacity	Enter the production capacity of your refinery in barrels per day. The production capacity, also known as the nameplate capacity, is the product output under conditions optimized for maximum quantity for the production facility, as demonstrated by one or more test-runs. Do not use commas when entering the numbers.
Design Capacity	<ul style="list-style-type: none"> <li>• Enter the design capacity, or theoretically calculated product output, of your refinery in barrels per day. The design capacity of an operable petroleum refinery is expressed in terms of barrels per day of crude capacity, cracking capacity, desulphurization, or amounts of products by grade. Do not use commas when entering the numbers.</li> <li>• The throughput capacity of an operable petroleum refinery is expressed in terms of barrels per day of crude capacity, cracking capacity, desulphurization, or amounts of products by grade. In most cases, simply enter the number of barrels per day of crude oil processed into more refined products.</li> </ul>



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Top-Screen Question	Question Details
Refinery Crude Sources	<p>This question asks for the source(s) of the crude oil that is refined at your facility. Enter the percentage of crude that arrives by:</p> <ul style="list-style-type: none"> <li>• Ship/barge</li> <li>• Pipeline</li> <li>• Strategic Petroleum Reserve (SPR)</li> <li>• Rail</li> <li>• Truck</li> </ul> <p>For each of the crude oil sources listed, enter the typical contribution as a percentage of the total barrels per day (0 to 100). Do not use commas or percent signs when entering the numbers. If your facility does not receive crude oil from a source on the list, enter a zero in the field.</p>
Regional Market Share	<p>For each product listed, determine your facility's percentage share of the regional market and the region to which it is supplied. If your refinery does not supply to a listed market, leave the field blank.</p> <ul style="list-style-type: none"> <li>• Gasoline</li> <li>• Diesel</li> <li>• Jet fuel/kerosene</li> <li>• LPG</li> <li>• Home heating oil</li> </ul> <p>In identifying the region that your facility supplies, you should include states or areas of the US (e.g., Northern California) to which your refinery ships its products.</p>

## 5.2 Airport Fuels Supplier

Top-Screen Question	Question Details
<p>Is your refinery a direct supplier to a major metropolitan airport?</p>	<p>A major metropolitan airport is an international airport or other airport serving a major urban area. General aviation, military, and other airports/bases are <b>not</b> considered major airports for the purposes of this question.</p> <ul style="list-style-type: none"> <li>• If your refinery fits this description, select <i>Yes</i> and enter the name of the airport(s).</li> <li>• Enter the facility's percentage of total deliveries of all the gasoline and/or jet fuel/kerosene supplied to the airport(s) from all sources.</li> <li>• Rows can be added if the refinery is a supplier to more than one major metropolitan airport.</li> </ul>

## 5.3 Military Installation Supplier

Top-Screen Question	Question Details
<p>Is your refinery a direct supplier to a military installation?</p>	<ul style="list-style-type: none"> <li>• If your refinery fits this description, select <i>Yes</i> and enter the name of the military installation(s).</li> <li>• For each military installation identified, enter the refinery's percentage share (0 to 100) of total deliveries of gasoline, diesel, and/or aviation fuel supplied to the installation from all sources.</li> <li>• Rows can be added if a refinery is a supplier to more than one military installation. Enter a zero if the refinery does not supply that product. <b>NOTE:</b> Do <b>not</b> leave the field blank.</li> </ul>

After you finish answering the questions listed above, you will be prompted to answer questions regarding DHS COI in 6 CFR Part 27 Appendix A. For instructions on answering these questions, please refer to Section 7.

## 6. Liquefied Natural Gas Storage Facilities

The following questions must be answered if the facility type selected in Question 1.1-65 was liquid natural gas (LNG) storage facility. These LNG storage-specific questions may assist DHS in identifying those chemicals and facilities that may have critical Government Mission and National Economy impacts. After answering the LNG-storage-specific questions, the remainder of the Top-Screen questionnaire must be completed. The CSAT system will skip this group of questions for all other facility types.

### 6.1 LNG Capacity

Top-Screen Question	Question Details
LNG storage capacity?	<ul style="list-style-type: none"> <li>• Enter the LNG storage capacity for your facility in cubic meters.</li> <li>• If there are multiple storage tanks at the facility, enter the total capacity of all tanks. For example, if there are three 100,000-m3 LNG storage tanks at the facility, then “300000” should be entered. Do not use commas when entering the numbers.</li> </ul>
Regasification rate?	<ul style="list-style-type: none"> <li>• The regasification rate refers to the conversion of LNG stored as a liquid into a vapor for transport to users and is specific to the unit or facility. Check with the facility’s Operations Department to determine the rate for the facility or process unit.</li> <li>• Enter the regasification rate (billion cubic feet per day). Report the annual average. Do not use commas when entering the data.</li> </ul>
Natural gas pipeline system(s)?	<ul style="list-style-type: none"> <li>• Enter the name of the natural gas pipeline system(s) your facility feeds. This should be the main tie-in point for natural gas from your facility.</li> </ul>

### 6.2 LNG Exclusion Zone

An exclusion zone is an area surrounding an LNG facility in which an operator or government agency legally controls all activities in accordance with 49 CFR §193.2057 and 49 CFR §193.2059 for as long as a facility is in operation. These requirements are designed to prevent a flammable vapor cloud associated with an LNG spill from reaching a property line or to prevent the thermal radiation

from ignition of vapors to exceed specified levels. These site requirements are provisions to minimize the possibility of the damaging side effects of fire reaching beyond a property line. 49 CFR Part 193 incorporates National Fire Protection Association (NFPA) 59A (Standard for the Production, Storage, and Handling of Liquefied Natural Gas) by reference. For a copy of 49 CFR Part 193, go to [http://www.access.gpo.gov/nara/cfr/waisidx\\_06/49cfr193\\_06.html](http://www.access.gpo.gov/nara/cfr/waisidx_06/49cfr193_06.html).

Top-Screen Question	Question Details
Is your facility sited according to Subpart B of the 49 CFR 193 (Liquefied Natural Gas: Federal Safety Standards) exclusion zone requirements for thermal radiation and flammable vapor dispersion?	Indicate whether your facility matches this description. If you select <i>No</i> , and then click the [Next] button and enter the reason why your facility was exempted from the regulation in the text field on the next screen. If you select <i>Yes</i> , you will be prompted with the LNG Exclusion Zone Details questions.

### 6.3 LNG Exclusion Zone Details

Top-Screen Question	Question Details
Thermal radiation zone?	Provide the distance (in feet) of the 5kW/m <sup>2</sup> thermal radiation zone using the 49 CFR Part 193 site requirements (§193.2057).
One-half the Lower Flammability Limit?	Provide the distance (in feet) to one-half the Lower Flammability Limit (½ LFL) using the 49 CFR Part 193 site requirements (§193.2059).

After you finish answering the questions listed above, you will be prompted to answer questions regarding DHS Chemicals of Interest in 6 CFR Part 27 Appendix A.

## 7. COI Identification

All non-exempt facilities are required to answer the chemical-specific questions. **NOTE:** A facility has an obligation to complete a Top-Screen if it possesses **any** of the COI at or above the listed STQs in Appendix A. See 6 CFR § 27.200(b)(2). Possession may include manufacture, use, storage, or distribution of COI. The following terms are applicable to this section:

Item	Description
Screening Threshold Quantity (STQ)	The STQ is the quantity of a chemical of interest, upon which a facility’s obligation to complete and submit the CSAT Top-Screen under 6 CFR 27.200(b)(2) is based. STQs are listed in Appendix A to 6 CFR Part 27. Counting provisions associated with STQs are located in the regulatory text, including 6 CFR §§ 27.203 and 27.204. The COI and STQs are also shown in the lists presented in the Top-Screen.
Minimum Concentration	<p>DHS has assigned a minimum concentration provision to each COI in Appendix A, which can be one of the following:</p> <ul style="list-style-type: none"> <li>• <b>Specific Percentage (1.00-50%):</b> If a specific percentage appears in the minimum concentration column for a COI, a facility must count toward the STQ for that COI all quantities of that chemical that meet or exceed the listed minimum concentration amount.</li> <li>• <b>A Commercial Grade (ACG):</b> ACG is defined in §27.105 as “any quality or concentration of a chemical of interest offered for commercial sale that a facility uses, stores, manufactures, or ships. Appendix A chemicals are manufactured mainly in the chemical industry; however, they are used in both the chemical industry and various other industries, such as the automotive, agricultural, consumer products, pharmaceutical, and paints and coatings industries. These other industries use Appendix A chemicals to produce commercial and consumer goods, such as paint, crop protection, detergents, and computers. Appendix A COI are thus manufactured in various commercial grades to satisfy the needs of diverse industries. For COI with a minimum concentration of ACG, a facility must count all commercial grades of such COI toward the STQ.</li> <li>• <b>CUM 100g:</b> A facility shall count any amount and concentration of COI with a minimum concentration of CUM 100g toward the cumulative STQ of 100 grams. For example, a facility that possesses isopropylphosphonyl difluoride and ethyl phosphonyl difluoride must count the total amount in any concentration of each COI toward the single cumulative STQ of 100 grams.</li> </ul>
Article	Pursuant to 6 CFR § 27.203(a)(6), in calculating whether a facility possesses a chemical of interest that meets the STQ for any security issue, a facility need not include chemicals of interest contained in articles, as defined in 40 CFR § 68.3. As defined in EPA’s RMP regulation, an “article” is a manufactured item formed to a specific shape or design that has end use functions

Item	Description
	<p>dependent on the shape or design and that does not release or result in exposure to a regulated substance under normal use or processing. See 40 CFR § 68.3. For example:</p> <ul style="list-style-type: none"> <li>• A facility need not count the quantity of vinylidene chloride contained in flexible plastic food wrap toward the facility's STQ of vinylidene chloride, because the flexible plastic food wrap is an article.</li> <li>• A facility that only possesses paint need not count the COI, such as aluminum powder, contained in that paint, because the paint is an article. However, a facility that manufactures paint (and possesses a commercial grade of aluminum powder with a minimum concentration of ACG to manufacture the paint) must count all commercial grades of the aluminum powder it possesses toward the STQ of 100 pounds.</li> <li>• A facility that possesses toothpaste containing potassium nitrate need not count that potassium nitrate toward its STQ for potassium nitrate, because the toothpaste is an article. However, a facility that purchases a commercial grade of potassium nitrate in order to manufacture toothpaste must count it towards its STQ for potassium nitrate.</li> </ul>

The following terms apply only to release COI in sections 7.1, 7.2, and 7.3:

Item	Description
<p>COI and Transportation Containers</p>	<p>In calculating either the Total On-site Quantity (TOQ) or the Area of Highest Quantity (AHQ) of a release COI, a facility must include COI in transportation containers used for storage not incident to transportation, including transportation containers connected to equipment at a facility for loading or unloading and transportation containers detached from motive power that delivered the container to the facility. Examples of transportation containers with COI that facilities should count toward their STQ include:</p> <ul style="list-style-type: none"> <li>• A tank car containing COI that is attached to processing units;</li> <li>• A tank car containing COI that is detached from the locomotive that had delivered the tank car to the facility.</li> </ul>

Item	Description
Administrative Controls	<p>After the facility does its STQ calculation and determines that the facility possesses COI in an amount that meets or exceeds the STQ, the facility must calculate the TOQ and AHQ of its chemicals of interest.</p> <ul style="list-style-type: none"> <li>• If a facility uses documented administrative controls that limit the maximum quantity in a vessel (e.g., ASME fill capacity restrictions), this information can be used to compile the TOQ and AHQ.</li> <li>• If no administrative controls are in place, a facility must enter the total capacity of all vessels for purposes of reporting the TOQ and AHQ.</li> </ul>

## 7.1 Release-Toxic COI

DHS identifies release-toxic COI as those with the potential to create a toxic cloud that would affect populations within and beyond a facility if intentionally released.

Top-Screen Question	Question Details
<p>Release-Toxic COI Present at Facility: Does the facility manufacture, process, use, store, or distribute any of the release-toxic COI at or above the screening threshold quantity?</p>	<ul style="list-style-type: none"> <li>• If your facility currently possesses any of the listed chemicals or possessed them within the past 60 days, in an amount at or above the applicable STQs, you should select the chemical(s) from the list (see Table 7.1). Some chemicals have more than one STQ.</li> <li>• The default settings indicate that the chemical is not present at your facility; thus, you must affirmatively change the answer for each chemical your facility possesses or has been possessed by your facility within the past 60 days.</li> </ul>

Security Issue	STQ	COI to Exclude	COI to Include	Minimum Concentration
Release-Toxic COI	500-20,000 lbs	27.203(a) 27.203(b)(2)	27.203(b)(1) 27.204(a)(1)	27.204(a)(1)

**Table 7.1: Summary of General Rules for Release-Toxic COI at 6 CFR Part 27**

**NOTE:** If your facility later comes into possession of a COI on Appendix A at or above any of the applicable STQ(s), your facility must complete and submit a CSAT Top-Screen to DHS within 60 calendar days of the date your facility comes into possession of the COI in such an amount. 6 CFR § 27.210(a)(1)(i). See the preamble to the Appendix A Final Rule for a more complete discussion of how to handle a facility’s subsequent possession of COI at or above the listed STQs.

**7.1.1 Calculating Release-Toxic COI**

To calculate whether your facility possesses any of the listed release-toxic COI at or above the STQ, your facility shall **only** include COI in the following:

Release-Toxic COI Location/Occurrence	Description
Vessel	As defined in 40 CFR § 68.3, any reactor, tank, drum, barrel, cylinder, vat, kettle, boiler, pipe, hose, or other container.
Underground Storage Facility	For purposes of 6 CFR Part 27, DHS defines an underground storage facility as a belowground storage location for COI or mixtures of COI (e.g., petroleum-based materials) that are placed in a storage location (until needed) after having been extracted from the ground and refined or processed. Such facilities include, but are not limited to, depleted reservoirs in oil and/or oil gas fields, aquifers, and salt cavern formations.



Release-Toxic COI Location/Occurrence	Description
Magazine	As defined in 27 CFR § 555.11.
Transportation Containers for Storage	These would be transportation containers that are <b>not</b> incident to transportation, such as transportation containers connected to equipment at a facility for loading or unloading and transportation containers detached from the mode of power that delivered the container to the facility.
Incidental/Transitory	These would be COI that, if they exist at any given time, would be present as process intermediates, by-products, or materials produced incidental to the production of a product.
Peak Shaving Facilities	These would be COI in natural gas or liquefied natural gas stored in peak shaving facilities.
Tank Farms	These would be COI in gasoline, diesel, kerosene or jet fuel (including fuels that have flammability hazard ratings of 1, 2, 3, or 4, as determined by using the National Fire Protection Association's [NFPA] Standard System for the Identification of the Hazards of Materials for Emergency Response) stored in aboveground tank farms, including tank farms that are part of pipeline systems.

To calculate whether your facility possesses any of the listed release-toxic COI at or above the STQ, your facility does **not** need to include COI that is:

- Used as a structural component (e.g., a facility need not include a chemical of interest embedded in foam insulation toward the facility's STQ for that chemical);
- Used as products for routine janitorial maintenance;
- Contained in food, drugs, cosmetics, or other personal items used by employees;
- In process water or non-contact cooling water drawn from environment or municipal sources;
- In air as compressed air or as part of combustion;
- Contained in articles, as defined in 40 CFR § 68.3;

- In solid waste (including hazardous waste) regulated under the Resource Conservation and Recovery Act, 42 U.S.C. § 6901 *et seq.*, except for the waste described in 40 CFR § 261.33;
- In naturally occurring hydrocarbon mixtures prior to entry of the mixture into a natural gas processing plant or a petroleum refining process unit (e.g., condensate, crude oil, field gas, and produced water as defined by 40 CFR § 68.3); or
- In a laboratory at the facility under the supervision of a technically qualified individual as defined in 40 CFR § 720.3. **NOTE:** This exemption does **not** apply to specialty chemical production; manufacture, processing, or use of substances in pilot plant scale operations; or activities, including research and development, involving chemicals of interest outside the laboratory.

### 7.1.2 Calculating Minimum Concentration of Release-Toxic COI

In determining whether your facility possesses COI that meet or exceed the STQ, you shall consider the release-toxic minimum concentration provision in 6 CFR §27.204(a)(1). This approach to release-toxics is consistent with EPA's RMP regulation.

- If a release-toxic COI is present in a mixture and the concentration of the chemical is equal to or greater than one percent (1%) by weight, your facility shall count the amount of the release-toxic COI in the mixture toward the STQ. For example, if your facility has 500 pounds of a toxic mixture containing five percent (5%) acrolein, your facility should count five percent (5%) of the weight of the mixture, or 25 pounds of acrolein, toward the STQ of 5,000 pounds.
- If a release-toxic COI is present in a mixture and the concentration of the chemical is less than one percent (1%) by weight of the mixture, your facility does **not** need to count the amount of that chemical in the mixture in determining whether your facility possesses the STQ.
- Except for oleum, if the concentration of the chemical of interest in the mixture is one percent (1%) or greater by weight but your facility can demonstrate that the partial pressure of the regulated substance in the mixture (solution) under handling or storage conditions in any portion of the process is less than 10 millimeters of mercury (mm Hg), the amount of the substance in the mixture in that portion of the vessel does **not** need to be considered when determining the STQ. Your facility shall document this partial pressure measurement or estimate.

After your facility has selected all COI that it possesses at or above the STQ from the look-up table, select Yes to affirm that your facility has diligently reviewed the list provided.

The list above has been reviewed and all chemicals of interest that the facility either currently possesses or possessed within the past 60 days at or above the screening threshold quantity have been indicated by selecting "Yes."

[Q:2.0-631]

Yes

No

<< Back   Next >>

Picture 7.1: COI Review Affirmation

### 7.1.3 Facility Topography

Indicate the topography which is representative of the area in which your facility is located. For release-toxic COI evaluated using RMP\*Comp (see Section 7.1.4.2), topography will be required in order to determine the Distance of Concern.

The characteristics of the topography surrounding your facility will have an effect on the dispersion of a toxic gas cloud. Uneven or rough terrain causes fluctuations in the wind profile and more turbulence, which contributes to a more rapid dispersion and shorter Distance of Concern. The Top-Screen uses the same definitions of **Urban** and **Rural** as EPA.

- **Urban** means that there are many obstacles (e.g., buildings, trees) in the immediate area. An area that may be away from a populated area, but has hills, trees, or canyon walls may be considered urban (not open).
- **Rural** means that there are few or no buildings in the immediate area and the terrain is flat and unobstructed. An area with few buildings or trees should be considered rural (open).

If your facility is covered by RMP, the selection of urban or rural under CFATS should be consistent with your facility's current RMP on file with EPA. If your facility is **not** covered by RMP and the terrain surrounding your facility differs depending on the approach to your facility, select the topography that is most representative of the facility's location. If you are still unsure, select **Rural**.

#### **7.1.4 Reporting TOQ and Distance of Concern for Release-Toxic COI**

After all release-toxic COI at your facility in quantities at or above the STQ have been identified, they will be displayed with their Chemical Abstracts Service (CAS) Registry number in a list on the screen. A CAS Registry number is a unique numeric identifier for chemical compounds, polymers, mixtures and alloys assigned by the CAS to every chemical that has been described in open literature. Referring to chemicals by their CAS numbers helps avoid confusion among different nomenclature systems and conventions.

Your facility will be asked to provide the following information:

- The TOQ and Distance of Concern (see Picture 7.2);
- The amount in the AHQ and Distance of Concern; and
- Whether the Toxic COI is stored underground.

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**Enter the total on-site quantity of the release toxic COI in pounds. Enter the distance of concern reported by RMP\*Comp in miles.**

The total on-site quantity is the highest amount that the facility either currently possesses or possessed within the past 60 days. **Round the quantity to two significant digits** (e.g., round 247500 pounds to 250000 pounds, and round 7625 pounds to 7600 pounds). Do not use commas when entering data.

The Distance of Concern that should be reported is the downwind distance calculated using RMP\*Comp for total on-site quantity of the regulated chemical, using additional process conditions for this chemical. Report all distances shorter than 0.1 mile as 0.1 mile, and all distances 25 miles or longer as 25 miles. (RMP\*Comp can be downloaded from [http://www.epa.gov/emergencies/content/rmp/rmp\\_comp\\_download.htm](http://www.epa.gov/emergencies/content/rmp/rmp_comp_download.htm))

Under CFATS, a COI is considered stored underground if it is stored in a containment vessel (e.g., a tank) that is physically buried in the ground, is stored in a containment vessel below grade, or stored in cavern or non-cavern type containment. Basement level storage would not be considered underground if the containment vessels are portable. If any amount of the COI is stored underground the facility must check Yes, and will then be required to answer a series of specific questions on underground storage.

Chemical Name	CAS#	Min. Conc.	Screening Threshold Quantity	Total On-site Quantity (pounds)	Distance of Concern (miles)	Is the Toxic COI Stored Underground?
Acrolein [2-Propenal or Acrylaldehyde]	107-02-8	1.00%	5,000 lbs	[Q.2.1-124] <input type="text"/>	[Q.2.1-126] <input type="text"/>	[Q.2.1-7958] <input type="radio"/> Yes <input type="radio"/> No
Allyl alcohol [2-Propen-1-ol]	107-18-6	1.00%	15,000 lbs	<input type="text"/>	<input type="text"/>	<input type="radio"/> Yes <input type="radio"/> No
Ammonia (anhydrous)	7664-41-7	1.00%	10,000 lbs	<input type="text"/>	<input type="text"/>	<input type="radio"/> Yes <input type="radio"/> No

**Picture 7.2: TOQ, Distance of Concern, and Underground Storage**

### **7.1.4.1 Total On-site Quantity**

Enter the maximum Total On-site Quantity (TOQ) of each release-toxic COI in pounds that your facility possessed at any time within the past 60 days. This is the single highest amount of each release-toxic COI currently present on-site or within the past 60 days, **not** the aggregate amount within the past 60 days. Compute the TOQ using the same provisions your facility shall consider when determining whether it possesses a COI at or above the STQ (see Section 7.1).

The records prepared by your facility to comply with other programs, such as Emergency Planning and Community Right-to-Know Act (EPCRA) and RMP, contain information that may be useful in compiling the TOQ of a given COI consistent with Section 7.1. However, your facility shall compile the TOQ of a COI under CFATS irrespective of the interconnection of processes and equipment

or the proximity of different storage containers or locations, which are considerations in RMP and in the Occupational Safety and Health Administration’s (OSHA) Process Safety Management (PSM). Interconnection is **not** a consideration for compiling the TOQ of a COI under CFATS.

**NOTE:** Do **not** use commas when reporting quantities. Round to two significant digits and report quantities as follows (similar to the way quantities are rounded and reported in RMP). For example:

- 5,333 pounds should be reported as 5300 pounds.
- 107,899 pounds should be reported as 110000 pounds.
- 2,128,000 pounds should be reported as 2100000 pounds.

Facilities may refer to Attachment A of this document for worksheets and an example of how to assemble information for reporting TOQ.

**7.1.4.2 Distance of Concern**

For each listed release-toxic COI, the Distance of Concern must be reported. Your facility must report all distances shorter than 0.1 mile as 0.1 mile, and all distances 25 miles or greater as 25 miles.

For purposes of the Top-Screen, The Distance of Concern is the downwind distance calculated using RMP\*Comp for the COI’s TOQ and additional process conditions for this chemical. Facilities can download RMP\*Comp from the EPA Web site at [http://www.epa.gov/emergencies/content/rmp/rmp\\_comp.htm](http://www.epa.gov/emergencies/content/rmp/rmp_comp.htm). For more information about RMP\*Comp, see the EPA's Risk Management Program Guidance Consequence Analysis document at <http://www.epa.gov/ceppo/pubs/ammonia/achap-04.pdf>.

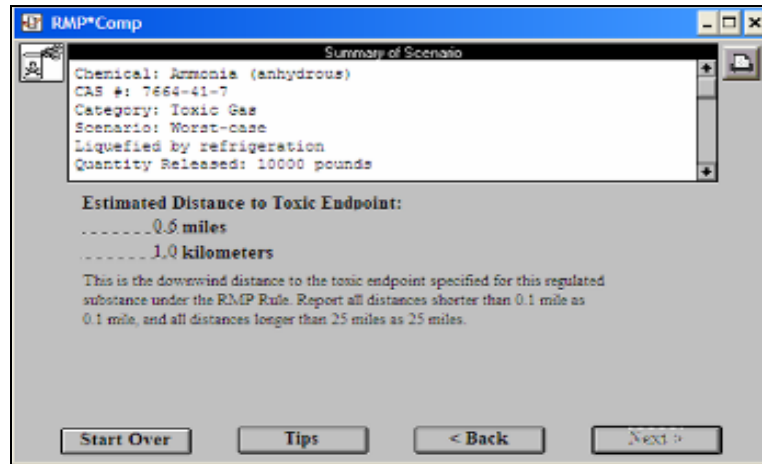
Use the steps listed in the following table for calculating the Distance of Concern. Repeat these steps to use the RMP\*Comp on each listed release-toxic COI for which the Top-Screen requests a Distance of Concern.

Step Number and Name	Instructions
Step 1: Open RMP*Comp	When RMP*Comp is opened, a welcome screen with some background information on the application is displayed. Click the [Next] button to continue.
Step 2: Choose the	On the next screen, verify that the “Single Chemical” option is selected and then select the chemical to be evaluated.

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Step Number and Name	Instructions
chemical to be analyzed	Use the scroll bar to the left of the chemical name, CAS number, and Threat (indication of toxic or flammable properties as defined under EPA RMP*Comp). Click the [Next] button to continue.
Step 3: Choose type of scenario to analyze	For the Top-Screen, all toxics must be analyzed using the <i>Worst-case</i> scenario type. Select <i>Worst-case</i> and click the [Next] button to continue.
Step 4: Select chemical phase	<p>Because one chemical may exist in different physical states as it is processed and/or stored on-site, the physical state selected should be the state that is most representative of the COI while at a facility, or the state that results in the greatest Distance of Concern using RMP*Comp. Depending on how the chemical is stored and processed, it can be a gas, a gas stored as a liquid (under refrigeration or pressure), or a liquid.</p> <ul style="list-style-type: none"> <li>• If the chemical selected for evaluation is a toxic gas, a facility must provide additional information into RMP*Comp to determine if the chemical is unliquefied or liquefied. Toxic gases include all listed toxic substances that are gases at ambient temperature (25° C, 77° F). <ul style="list-style-type: none"> <li>○ Select <i>Unliquefied</i> if the chemical is used or stored as a gas under normal operating conditions for your facility.</li> <li>○ Select <i>Liquefied</i> if the chemical is used or stored as a liquid under normal operating conditions for your facility. If <i>Liquefied</i> is selected, the storage conditions need to be specified. The choices in RMP*Comp are <i>Liquefied by refrigeration</i> and <i>Liquefied by pressure</i>. Select the appropriate option and click [Next] to continue.</li> </ul> </li> <li>• If the chemical selected is a toxic liquid, then the previous screen will not be shown in RMP*Comp. For toxic liquids, a facility needs to provide only the operating temperature. The operating temperature for a toxic liquid is requested on the same screen as topography (see Step 6 below).</li> </ul>
Step 5: Quantity released	Enter the TOQ of the listed toxic chemical. This is the same quantity that was entered in response to the Top-Screen question regarding TOQ. It must be entered here for RMP*Comp to calculate the Distance of Concern. Documented administrative controls that limit the maximum quantity in tanks and vessels can be accounted for in the estimate of the TOQ. If no administrative controls are in place, the total capacity of all vessels, tanks, and piping should be entered. Click [Next] to continue.
Step 6: Topography	Enter the same topography description that was used to answer the previous Top-Screen question about topography. RMP*Comp requires this information to be entered to calculate the Distance of Concern. Click [Next] to continue.

Step Number and Name	Instructions
Step 7: Mitigation measures	RMP*Comp collects information on passive mitigation systems. The mitigation measures may include release into dikes, release into buildings, and release in an enclosed space. Because the Top-Screen is evaluating an intentional release rather than an accidental release, passive mitigation systems should <b>not</b> be included in the determination of the Distance of Concern. <b>Do not select any option</b> and click [Next] to continue.
Step 8: Estimated Distance of Concern	Once all of the chemical and quantity-specific information is entered, RMP*Comp produces an Estimated Distance to Toxic Endpoint. This distance (in miles) is what is entered into the Top-Screen as the Distance of Concern, if applicable. Your facility must report all distances shorter than 0.1 mile as 0.1 mile and all distances 25 miles or farther as 25 miles. For the example shown in Picture 7.3, it can be seen that 10,000 pounds of anhydrous ammonia liquefied by refrigeration at a facility with urban terrain results in a Distance of Concern of 0.6 miles.



Picture 7.3: RMP\*Comp Distance of Concern Summary Page



**7.1.4.3 Underground Storage**

Top-Screen Question	Question Details
Is the Release-Toxic COI Stored Underground?	Your facility should answer this question for <b>each</b> listed release-toxic COI. If any amount of the COI is stored underground, you must select Yes and then answer a series of specific questions on underground storage. A COI is typically considered stored underground if it is stored in a containment vessel (e.g., a tank) that is physically buried in the ground (i.e., basement level storage would <b>not</b> be considered underground).

**7.1.5 Reporting the AHQ and Distance of Concern for Release-Toxic COI**

After all quantities of the release-toxic COI at your facility have been identified and the sums have been determined to be at or above the STQ, they will be displayed with their CAS numbers in a list on the next screen (see Picture 7.4).

- Enter in pounds the total maximum amount within the AHQ for each release-toxic COI that your facility possesses or has possessed within the past 60 days. **NOTE:** The TOQ (answered in the previous question) may be different from the total amount in the AHQ. If release-toxic COI is found in only one location at your facility, enter the same amount as reported for TOQ.
- The AHQ is defined as an area within a radius of 170 feet in which the greatest amount of the release-toxic COI is located. The same counting rules that a facility applies in determining whether it meets or exceeds the STQ for release-toxic chemicals COI, also apply when compiling the AHQ. Please refer to Attachment A of this document for worksheets and an example of how to assemble information for reporting the AHQ.
- For each listed release-toxic COI, the Distance of Concern for the AHQ is the downwind distance calculated using RMP\*Comp. If the amount of COI in the AHQ is different than the TOQ, calculate the Distance of Concern using the new amount by following the instructions in Section 7.1.4.2 for calculating Distance of Concern with RMP\*Comp. Your facility should report all distances shorter than 0.1 mile as 0.1 mile and distances 25 miles or greater as 25 miles.

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Enter the quantity of the release toxic COI in the Area of Highest Quantity in pounds. Enter the distance of concern reported by RMP<sup>®</sup>Comp for each AHQ in miles.

The Area of Highest Quantity (AHQ) is defined as an on-site area, with a radius of 170 feet, where the greatest amount of the release toxic COI is either currently present or has been present at any one time within the past 60 days. This amount may differ from the total on-site quantity. Round the quantity to two significant digits (e.g., round 247500 lbs. to 250000 lbs., and round 7625 lbs. to 7600 lbs.) Do not use commas when entering data.

Chemical Name	CAS#	Min. Conc.	Screening Threshold Quantity	Quantity in AHQ (pounds)	Distance of Concern for AHQ (miles)
Acrolein [2-Propenal or Acrylaldehyde]	107-02-8	1.00%	5,000 lbs	[Q: 2.2-2792] <input type="text"/>	[Q: 2.2-2793] <input type="text"/>
Allyl alcohol [2-Propen-1-ol]	107-18-6	1.00%	15,000 lbs	<input type="text"/>	<input type="text"/>
Ammonia (anhydrous)	7664-41-7	1.00%	10,000 lbs	<input type="text"/>	<input type="text"/>

**Picture 7.4: AHQ and AHQ Distance of Concern**

### 7.1.6 Underground Storage for Release-Toxic COI

For each release-toxic COI that is stored underground, your facility should answer the following questions:

Top-Screen Question	Question Details
Number of Underground Tanks	Enter the number of underground storage tanks.
Collective Capacity of Underground Tanks	Enter the collective capacity of the underground storage tanks (in pounds).
Distance to Nearest Infrastructure	Enter the distance from the underground tank(s) to the nearest infrastructure (in feet) that is not associated with the underground storage operation. Infrastructure may include buildings, bridges, or other above ground structures or pipelines.

On the next screen, answer the following questions for each release-toxic COI that is stored underground:

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Top-Screen Question	Question Details
Pressure Rating of Tank(s)	Enter the pressure rating of tank(s) (in psig).
Tank(s) Double Walled?	Is/Are the tank(s) double walled? Answer <i>Yes</i> or <i>No</i> .
Depth of Underground Tanks	Enter depth (from ground surface to tank top) of underground tanks (in feet).
Underground Storage Type	<p>Select buried or below grade.</p> <ul style="list-style-type: none"> <li>• Buried storage is set in the ground and covered by soil.</li> <li>• Below grade storage is set entirely below the surface of the ground in a storage pit but is not covered by soil.</li> </ul>

For each release-toxic COI that is stored below grade, answer the following question:

Top-Screen Question	Question Details
Below Grade Containment Covered?	<ul style="list-style-type: none"> <li>• If the below grade containment area is covered by enclosure or other protective structure, answer <i>Yes</i>.</li> <li>• If the below grade containment is open to atmospheric conditions, answer <i>No</i>.</li> </ul>

## 7.2 Release-Flammable COI

DHS identifies release-flammable COI as those with the potential to create an explosive cloud that would affect populations within and beyond the facility, if intentionally released. Pursuant to 6 CFR § 27.200(a), the release-flammable chemicals section of the Top-Screen asks questions about release-flammable COI from Appendix A and questions about some fuels (such as diesel) that do not routinely contain Appendix A chemicals. If your facility is completing a Top-Screen because it possesses a release flammable COI, it must also provide information about these fuels that do and do not contain Appendix A release-flammable COI. A facility that possesses **only** fuel(s) must:

- 1) Indicate the type of fuel it possesses; and
- 2) Provide the total amount of the fuel it possesses at the facility. This facility need not select from the list of release-flammable COI any or all constituents of that fuel.

Some examples include:

- For fuels that do not contain Appendix A COI: Diesel does not routinely contain any Appendix A chemicals of interest. A facility that possesses diesel need only select “Fuel: Diesel” and enter the total weight in pounds of diesel at the facility.
- For fuels that contain Appendix A COI: Gasoline typically includes Appendix A chemicals of interest. A facility that possesses gasoline need only select “Fuel: Gasoline” and enter the total weight in pounds of gasoline at the facility. The facility should not select the constituents of its gasoline (e.g., butane) from the list of release-flammable COI in the Top-Screen.

Top-Screen Question	Question Details
<p>Release-Flammable COI Present at a Facility: Does the facility manufacture, process, use, store, or distribute any of the release-flammables COI at or above the screening threshold quantity?</p>	<p>If your facility currently possesses any of the listed chemicals or possessed them within the past 60 days in an amount at or above the applicable STQs, you should select the chemical(s) from the list provided (see Table 7.2). Some chemicals have more than one STQ.</p> <ul style="list-style-type: none"> <li>• The default settings indicate that the chemical is not present at the facility; thus, your facility must affirmatively change the answer for each chemical it possesses or possessed at or above the STQ at the facility within the past 60 days.</li> <li>• Select all applicable chemicals from the look-up table and select Yes at the end to affirm that your facility has diligently reviewed the list.</li> </ul>

Security Issue	STQ	COI to Exclude	COI to Include	Minimum Concentration
Release-Flammable	10,000–60,000 lbs (RMP STQ except COI Propane)	27.203(a) 27.203(b)(2) 27.203(b)(3)	27.203(b)(1) 27.204(a)(2)	27.204(a)(2)

**Table 7.2: Summary of General Rules for Release-Flammable COI at 6 CFR Part 27**

For assistance in determining if a Top-Screen submission is required and how to complete the Top-Screen for release-flammable mixtures, fuels and/or the chemical or COI propane, please see the CFATS Web site or <http://edocket.access.gpo.gov/2008/pdf/08-1059.pdf>.

### 7.2.1 Calculating Release-Flammable COI

To calculate whether your facility possesses any of the listed release-flammable COI at or above the STQ, your facility shall **only** include COI in the following:

Release-Flammable COI Location/Occurrence	Description
Vessel	As defined in 40 CFR § 68.3, any reactor, tank, drum, barrel, cylinder, vat, kettle, boiler, pipe, hose, or other container.
Underground Storage Facility	For purposes of 6 CFR Part 27, DHS defines an underground storage facility as a belowground storage location for COI or mixtures of COI (e.g., petroleum-based materials) that are placed in a storage location (until needed) after having been extracted from the ground and refined or processed. Such facilities include, but are not limited to, depleted reservoirs in oil and/or oil gas fields, aquifers, and salt cavern formations.
Magazine	As defined in 27 CFR § 555.11.
Transportation Containers for Storage	These would be transportation containers that are <b>not</b> incident to transportation, such as transportation containers connected to equipment at a facility for loading or unloading and transportation containers detached from the mode of power that delivered the container to the facility.
Incidental/Transitory	These would be COI that, if they exist at any given time, would be present as process intermediates, by-products, or materials produced incidental to the production of a product.
Peak Shaving Facilities	These would be COI in natural gas or liquefied natural gas stored in peak shaving facilities.

Release-Flammable COI Location/Occurrence	Description
Tank Farms	These would be COI in gasoline, diesel, kerosene or jet fuel (including fuels that have flammability hazard ratings of 1, 2, 3, or 4, as determined by using the National Fire Protection Association’s (NFPA) Standard System for the Identification of the Hazards of Materials for Emergency Response) stored in aboveground tank farms, including tank farms that are part of pipeline systems. For purposes of applying this provision, the flammability hazard ratings are defined in NFPA 704: Standard System for the Identification of the Hazards of Materials for Emergency Response [2007 ed.].

To calculate whether your facility possesses any of the listed release-flammable COI at or above the STQ, your facility does **not** need to include COI that is:

- Used as a structural component (e.g., a facility need not include a chemical of interest embedded in foam insulation toward the facility’s STQ for that chemical);
- Used as products for routine janitorial maintenance;
- Contained in food, drugs, cosmetics, or other personal items used by employees;
- In process water or non-contact cooling water drawn from environment or municipal sources;
- In air as compressed air or as part of combustion;
- Contained in articles, as defined in 40 CFR § 68.3;
- In solid waste (including hazardous waste) regulated under the Resource Conservation and Recovery Act, 42 U.S.C. § 6901 *et seq.*, except for the waste described in 40 CFR § 261.33;
- In naturally occurring hydrocarbon mixtures prior to entry of the mixture into a natural gas processing plant or a petroleum refining process unit (e.g., condensate, crude oil, field gas, and produced water as defined by 40 CFR § 68.3); or
- In a laboratory at the facility under the supervision of a technically qualified individual as defined in 40 CFR § 720.3. **NOTE:** This exemption does **not** apply to specialty chemical production; manufacture, processing, or use of substances in pilot plant scale operations; or activities, including research and development, involving chemicals of interest outside the laboratory.

**NOTE:** Special provisions apply to the COI propane. The COI propane refers to products containing at least 87.5 percent of the chemical propane, as well as other release-flammable COI. The STQ for the COI propane is 60,000 pounds. When calculating whether a facility possesses an amount that meets the STQ for the COI propane, your facility does not need to include tanks of 10,000 pounds or less (see 6 CFR § 27.203[b][3]).

### 7.2.2 Calculating Minimum Concentration of Release-Flammable COI

In determining whether a facility possesses COI that meet or exceed the STQ, your facility shall consider the release-flammable minimum concentration provision in 6 CFR §27.204(a)(2).

For release-flammable mixtures that are fuels:

- Your facility must indicate the type of fuel it possesses and provide the entire amount of the fuel if a release-flammable COI is:
  - Present in gasoline, diesel, kerosene or jet fuel (including fuels that have flammability hazard ratings of NFPA 1, 2, 3, or 4);
  - Stored in an aboveground tank farm, including tank farms that are part of pipeline systems; and
  - In a concentration equal to or greater than one percent (1%) by weight of the mixture.
- However, your facility does **not** need to account for the release-flammable COI or mixture if the same release-flammable COI is:
  - Present in a fuel stored in an aboveground tank farm, including tank farms that are a part of pipeline systems,
  - In a concentration less than one percent (1%) by weight of the mixture; and
  - In a mixture that has a NFPA flammability hazard rating of 1, 2, 3, or 4.

For release-flammable mixtures that are **not** fuels:

- Your facility does not need to count the mixture if a release-flammable COI is:
  - Present in a mixture in a concentration equal to or greater than one percent (1%) by weight of the mixture; and
  - In a mixture that has a National Fire Protection Association (NFPA) flammability hazard rating of 1, 2, or 3.



**NOTE:** Your facility **only** needs to count the amount of the release-flammable COI equal to or greater than one percent (1%).

- However, your facility **must count the entire amount** of the mixture if a release-flammable COI is:
  - Present in a mixture in a concentration equal to or greater than one percent (1%) by weight of the mixture, and
  - In a mixture that has a NFPA flammability hazard rating of 4.

**NOTE:** Your facility must count the entire amount of such a mixture whether it is stored in a belowground or aboveground tank farm.

The following examples illustrate the requirements for release-flammable COI and release-flammable mixtures that are fuels:

- A facility that stores gasoline with a NFPA 2 flammability hazard rating belowground is not required to count this release-flammable mixture and fuel. Release-flammable mixtures with a NFPA flammability hazard rating of 1, 2, or 3 only count at aboveground tank farms. See 6 CFR §§ 27.204(a)(2) and 27.203(b)(v).
- A marketing terminal has an aboveground tank farm that stores 15,000 pounds of a release-flammable mixture that contains 2% of butane. The release-flammable mixture has a NFPA flammability hazard rating of 3. This facility must select “Fuel: Gasoline” from the release-flammable list, apply the entire amount of the release-flammable mixture, and submit a Top-Screen because it possesses an amount that exceeds the STQ of 10,000 pounds for the release-flammable mixture.

### 7.2.3 Reporting the Total Quantity of Release-Flammable COI

After you identify all of the release-flammable COI that your facility possesses at or above the STQ, the Top-Screen will display all of the release-flammable COI with their CAS numbers in a list.

Top-Screen Question	Question Details
Total On-site Quantity	Enter the maximum TOQ of each release-flammable COI (in pounds) that your facility possessed at any time within the past 60 days. This is the single highest amount of each release-flammable COI currently present on-site or within the past 60 days, <b>not</b> the aggregate amount within the past 60 days. Compute the TOQ using the same provisions a facility shall consider when determining whether it possesses a COI at or above the STQ (see Section 7.2).

The records prepared by your facility to comply with other programs, such as Emergency Planning and Community Right-to-Know Act (EPCRA) and RMP, contain information that may be useful in compiling the TOQ of a given COI consistent with Section 7.2. However, your facility shall compile the TOQ of a COI under CFATS irrespective of the interconnection of processes and equipment or the proximity of different storage containers or locations, which are considerations in RMP and in the Occupational Safety and Health Administration’s (OSHA) Process Safety Management (PSM). Interconnection is **not** a consideration for compiling the TOQ of a COI under CFATS.

**NOTE:** Do not use commas when reporting quantities. Round to two significant digits and report quantities as follows (similar to the way quantities are rounded and reported in RMP):

- 5,333 pounds should be reported as 5300 pounds.
- 107,899 pounds should be reported as 110000 pounds.
- 2,128,000 pounds should be reported as 2100000 pounds.

Please refer to Attachment A of this document for worksheets and an example of how to assemble information for reporting TOQ.

**7.2.4 Reporting the Quantity of Release-Flammable COI in the AHQ**

The AHQ is defined as an area within a radius of 170 feet in which the greatest amount of the release-flammable COI is located. When compiling the AHQ, apply the same counting rules that your facility applies in determining whether it meets or exceeds the STQ for release-flammable COI.

Top-Screen Question	Question Details
Total Maximum Amount within the Area of Highest Quantity (AHQ)	Enter the total maximum amount within the AHQ for each release-flammable COI (in pounds). The TOQ (answered in the previous question) may be different from the total amount in the AHQ. If the release-flammable COI is found in only one location at a facility, enter the same amount as reported for TOQ.

The approach to compiling the AHQ for release-flammable COI is distinct from the approach used for release-toxic COI. For release-toxic COI, AHQs are counted individually regardless of their proximity; for release-flammables, the reported AHQ for a COI should include the release-flammable COI in addition to other release-flammable COI in adjacent process equipment or several listed release-flammable COI within the 170-foot radius. All listed release-flammable COI released in an intentional event could contribute to a secondary flammable consequence; therefore, all listed release-flammables within 170 feet of the COI need to be evaluated when determining the AHQ and reported as an aggregate number, consistent with the counting provision in Section 7.2 and 6 CFR §27.203(b)(1). For example, a facility with a single flammable storage area (all within a 170-foot radius) with three COI — 70,000 pounds of COI propane, 50,000 pounds of butane, and 30,000 pounds of pentane — the same AHQ of 150,000 pounds would be reported for each flammable COI. Please refer to Attachment A of this document for worksheets and an example of how to assemble information for reporting AHQ.

### 7.2.5 Underground Storage for Release-Flammable COI

Top-Screen Question	Question Details
Is the Flammable COI Stored Underground?	Your facility should answer this question for each listed release-flammable COI. If any amount of the COI is stored underground, your facility must answer <i>Yes</i> and then answer a series of specific questions about underground storage. Under CFATS, a COI is considered stored underground if it is stored in a containment vessel (e.g., a tank) that is physically buried in the ground, is stored in a containment vessel below grade, or is stored in cavern or non-cavern type containment. Basement level storage would <b>not</b> be considered underground if the containment vessels are portable.

### 7.2.6 Gasoline-Specific Questions

If your facility selects gasoline as a COI, it will be asked additional questions about storage.

Top-Screen Question	Question Details
Aboveground storage	If your facility stores any gasoline in aboveground atmospheric tanks, answer <i>Yes</i> ; otherwise, answer <i>No</i> .

If you answer *Yes* for your facility, you will be directed to a series of specific questions about aboveground storage. For the questions in this section, round quantities to two significant digits (e.g., round 24750 gallons to 25000 gallons, and round 3625 feet to 3600 feet).

Top-Screen Question	Question Details
Maximum Storage Capacity	What is your facility's maximum gasoline storage capacity (in gallons, based on design capacity) taking into consideration Federal, State, and local laws and regulations?
Single Largest Storage Vessel	What is your facility's single largest gasoline storage vessel (in gallons, based on design capacity) taking into consideration Federal, State, and local laws and regulations?
Shortest Distance to Off-site Business	What is the shortest distance (in feet) from a large gasoline storage tank to off-site businesses or retail areas where another company's employees or members of the public would be located? For purposes of this question, a "large storage tank" is typically defined as 30,000 gallons or greater (based on design capacity), taking into account Federal, State, and local laws and regulations. However, enter the shortest distance from the largest gasoline storage tank at your facility.

Top-Screen Question	Question Details
Shortest Distance to Off-site Residences	What is the shortest distance (in feet) from a large gasoline storage tank to off-site residences? For purposes of this question, a “large storage tank” is typically defined as 30,000 gallons or greater (based on design capacity) taking into account Federal, State, and local laws and regulations. However, enter the shortest distance from the largest gasoline storage tank at your facility.
Largest Population	What is your estimate of the largest population (either daytime or nighttime) other than on-site employees/contractors within 250, 500, and 1,000 feet from any large gasoline storage tank or containment area?
What is the source or basis for this estimate?	Provide an explanation of how the previous question’s response was determined.

### 7.2.7 Underground Storage for Release-Flammable COI

For each release-flammable COI that is stored underground, your facility should answer the following questions:

Top-Screen Question	Question Details
Is the COI stored in bulk tanks?	Bulk tanks are cylindrical or spherical containers, typically of metal fabrication, and “cavern/non-cavern containment” refers to underground earth formations including aquifers, salt caverns and depleted reservoirs. If the answer to either question is Yes, the facility will then be directed to specific questions on bulk tanks or cavern/non-cavern storage.
Is the COI stored in cavern/non-cavern type containment?	

For each release-flammable COI that is stored underground in bulk tanks, answer the following questions. Bulk tank storage can be for both below grade and physically buried tanks. The following questions regarding underground storage should **only** be answered about the amount of release-flammable COI stored underground:

Top-Screen Question	Question Details
Number of Underground Tanks	Enter the number of underground storage tanks.
Collective Capacity of Underground Tanks	Enter the collective aggregate capacity of the underground storage tanks (in pounds).
Distance to Nearest Infrastructure	Enter the distance from the underground tank(s) to the nearest infrastructure (in feet) that is not associated with the underground storage operation. Infrastructure may include buildings, bridges, or other above ground structures or pipelines.

The following questions regarding underground storage for each release-flammable COI should **only** be answered about the amount of release-flammable COI stored underground:

Top-Screen Question	Question Details
Pressure Rating of Tank(s)	Enter the pressure rating of tank(s) (in psig).
Tank(s) Double Walled?	Is/Are the tank(s) double walled? Answer <i>Yes</i> or <i>No</i> .
Depth of Underground Tanks	Enter depth (from ground surface to tank top) of underground tanks (in feet).
Underground Storage Type	Select buried or below grade. Buried storage is set in the ground and covered by soil. Below grade storage is set entirely below the surface of the ground in a storage pit but is not covered by soil.

For each release-flammable COI that is stored below grade in bulk tanks, answer the following question:

Top-Screen Question	Question Details
Below Grade Containment Covered?	<ul style="list-style-type: none"> <li>• If the below grade containment area is covered by an enclosure or other protective structure, answer <i>Yes</i>.</li> <li>• If the below grade containment is open to atmospheric conditions, answer <i>No</i>.</li> </ul>

For each release-flammable COI stored underground in a cavern/non-cavern type formation, select the [Describe] button and answer the following questions regarding underground storage. These questions should only be answered about the amount of release-flammable COI stored underground.

Top-Screen Question	Question Details
Is the Release-Flammable COI stored in cavern or in non-cavern storage?	Choose <i>Cavern</i> or <i>Non-Cavern</i> . Cavernous formations refer to porous rock formations. Non-cavernous formations refer to old gas or oil fields that are no longer productive.
How many wells are in the storage field?	Enter the number of wells that are in the storage field in the text box provided.
What is the aerial extent of the storage formation?	Enter the aerial extent of the storage formation (in acres).
What is the total storage weight?	Enter the total storage weight (in pounds).

Top-Screen Question	Question Details
<p>List the well heads, if any, located in High Consequence Areas (HCA) as defined by Department of transportation (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA) in 49 CFR Part 192</p>	<p>Enter the following information for each well head located in the HCA. Click the [Add] button to enter information for another well head.</p> <ul style="list-style-type: none"> <li>• Enter the name or ID of the well head.</li> <li>• Depth of Well (in feet).</li> <li>• Maximum pressure at well head (in psig).</li> <li>• Absolute open flow rate at maximum pressure (in mmcf/min).</li> <li>• Distance to closest infrastructure not associated with storage operation (in feet). Use the distance (in feet) from the well head to the nearest infrastructure that is not associated with the underground storage operation. Infrastructure may include buildings, bridges, or other above ground structures or pipelines.</li> </ul>

When each release-flammable COI stored underground in a cavern/non-cavern type formation is complete, click the [Next] button to continue to release-explosive COI.



### 7.3 Release-Explosive COI

DHS identifies release-explosive COI as those with the potential to affect populations within and beyond the facility, if intentionally detonated.

Top-Screen Question	Question Details
Release-Explosive COI Present at a Facility: Does the facility manufacture, process, use, store, or distribute any of the listed release-explosive COI at or above the screening threshold quantity?	If your facility currently possesses any of the listed chemicals or possessed them within the past 60 days in an amount at or above the applicable STQs, you should select the chemical(s) from the list (see Table 7.3). Some chemicals have more than one STQ. <ul style="list-style-type: none"> <li>• The default settings indicate that the chemical is not present at the facility; thus, your facility must affirmatively change the answer for each chemical it possesses or possessed at the facility within the past 60 days.</li> <li>• Select all applicable chemicals from the look-up table and select Yes at the end to affirm that your facility has diligently reviewed the list.</li> </ul>

Security Issue	STQ	COI to Exclude	COI to Include	Minimum Concentration
Release-Explosive COI	5,000 lbs	27.203(a)	27.203(b)(1)	27.204(a)(3)

**Table 7.3: Summary of General Rules for Release-Explosive COI at 6 CFR Part 27**

### 7.3.1 Calculating Release-Explosive COI

To calculate whether your facility possesses any of the listed release-explosive COI at or above the STQ, your facility shall **only** include COI in the following:

Release-Explosive COI Location/Occurrence	Description
Vessel	As defined in 40 CFR § 68.3, any reactor, tank, drum, barrel, cylinder, vat, kettle, boiler, pipe, hose, or other container.
Underground Storage Facility	For purposes of 6 CFR Part 27, DHS defines an underground storage facility as a belowground storage location for COI or mixtures of COI (e.g., petroleum-based materials) that are placed in a storage location (until needed) after having been extracted from the ground and refined or processed. Such facilities include, but are not limited to, depleted reservoirs in oil and/or oil gas fields, aquifers, and salt cavern formations.
Magazine	As defined in 27 CFR § 555.11.
Transportation Containers for Storage	These would be transportation containers that are <b>not</b> incident to transportation, such as transportation containers connected to equipment at a facility for loading or unloading and transportation containers detached from the mode of power that delivered the container to the facility.
Incidental/Transitory	These would be COI that, if they exist at any given time, would be present as process intermediates, by-products, or materials produced incidental to the production of a product.
Peak Shaving Facilities	These would be COI in natural gas or liquefied natural gas stored in peak shaving facilities.
Tank Farms	These would be COI in gasoline, diesel, kerosene, or jet fuel (including fuels that have flammability hazard ratings of 1, 2, 3, or 4, as determined by using the National Fire Protection Association’s [NFPA] Standard System for the Identification of the Hazards of Materials for Emergency Response) stored in aboveground tank farms, including tank farms that are part of pipeline systems.

To calculate whether your facility possesses any of the listed release-explosive COI at or above the STQ, your facility does **not** need to include COI that is:

- Used as a structural component (e.g., a facility need not include a COI embedded in foam insulation toward the facility's STQ for that chemical);
- Used as products for routine janitorial maintenance;
- Contained in food, drugs, cosmetics, or other personal items used by employees;
- In process water or non-contact cooling water drawn from environment or municipal sources;
- In air as compressed air or as part of combustion;
- Contained in articles, as defined in 40 CFR § 68.3;
- In solid waste (including hazardous waste) regulated under the Resource Conservation and Recovery Act, 42 U.S.C. § 6901 *et seq.*, except for the waste described in 40 CFR § 261.33;
- In naturally occurring hydrocarbon mixtures prior to entry of the mixture into a natural gas processing plant or a petroleum refining process unit (e.g., condensate, crude oil, field gas, and produced water as defined by 40 CFR § 68.3); or
- In a laboratory at the facility under the supervision of a technically qualified individual as defined in 40 CFR § 720.3. **NOTE:** This exemption does **not** apply to specialty chemical production; manufacture, processing, or use of substances in pilot plant scale operations; or activities, including research and development, involving chemicals of interest outside the laboratory.

### 7.3.2 Calculating Minimum Concentration of Release-Explosive COI

The minimum concentration provision for release-explosive COI is located at 6 CFR § 27.204(a)(3). The minimum concentration for release-explosive COI is A Commercial Grade (ACG). ACG is defined in 6 CFR §27.105 as “any quality or concentration of a chemical of interest offered for commercial sale that a facility uses, stores, manufactures, or ships.” For each release-explosive COI, your facility shall count the total quantity of all commercial grades of the COI toward the STQ. However, if a specific minimum concentration is assigned in the minimum concentration column of Appendix A, your facility should count the total quantity of all commercial grades of the chemical at or above the specified minimum concentration.

### 7.3.3 Reporting the Total Quantity of Release-Explosive COI

After you identify all of the release-explosive COI that your facility possesses at or above the STQ, the Top-Screen will display all of the release-explosive COI with their CAS numbers in a list.

Top-Screen Question	
Total On-site Quantity	Enter the maximum TOQ of each release-explosive COI (in pounds) that your facility possessed at any time within the past 60 days. This is the single highest amount of each release-explosive COI currently present on-site or within the past 60 days, <b>not</b> the aggregate amount within the past 60 days. Compute the TOQ using the same provisions a facility shall consider when determining whether it possesses a COI at or above the STQ (see Section 7.3).

The records prepared by your facility to comply with other programs, such as Emergency Planning and Community Right-to-Know Act (EPCRA) and RMP, contain information that may be useful in compiling the TOQ of a given COI consistent with Section 7.3. However, your facility shall compile the TOQ of a COI under CFATS irrespective of the interconnection of processes and equipment, or the proximity of different storage containers or locations, which are considerations in RMP and in the Occupational Safety and Health Administration’s (OSHA) Process Safety Management (PSM). Interconnection is **not** a consideration for compiling the TOQ of a COI under CFATS.

**NOTE:** Do not use commas when reporting quantities. Round to two significant digits and report quantities as follows (similar to the way quantities are rounded and reported in RMP):

- 5,333 pounds should be reported as 5300 pounds.
- 107,899 pounds should be reported as 110000 pounds.
- 2,128,000 pounds should be reported as 2100000 pounds.

Please refer to Attachment A of this document for worksheets and an example of how to assemble information for reporting TOQ.

### 7.3.4 Reporting the Quantity of Release-Explosive COI in the AHQ

The AHQ is defined as an area within a radius of 170 feet in which the greatest amount of the explosive COI is located. When compiling the AHQ, apply the same counting rules that your facility applies in determining whether it meets or exceeds the STQ for release-explosive COI.

Top-Screen Question	Question Details
Total Maximum Amount within the Area of Highest Quantity (AHQ)	Enter the total maximum amount within the AHQ of each release-explosive COI (in pounds). The TOQ (answered in the previous question) may be different from the total amount in the AHQ. If the release-explosive COI is found in only one location at a facility, enter the same amount as reported for TOQ.

For explosives, the reported AHQ for a COI may include a single release-explosive COI or several covered explosives located within the 170-foot radius. Because all covered explosives released in an intentional event could contribute to a secondary consequence, all covered explosives that meet the reporting criteria in Section 7.3.1 within 170 feet of the COI need to be evaluated when determining the AHQ and reported as an aggregate number. This calculation for colocated COI is similar to the approach used for release-flammable COI. The example in Attachment A illustrates the approach. Please refer to Attachment A of this document for worksheets and an example of how to assemble information for reporting Area of Highest Quantity.

## 7.4 Theft/Diversions-Explosives/Improvised Explosive Device Precursor COI

DHS identifies Theft/Diversions-Explosives (EXP)/Improvised Explosive Device Precursors (IEDP) COI as those that could be stolen or diverted and used explosives or Improvised Explosive Devices (IEDs).

Top-Screen Question	Question Details
Theft/Diversions-Explosives/Improvised Explosive Device Precursor (EXP/IEDP) Present at the Facility: Does the facility manufacture, process, use, store, or distribute any of the theft/diversion-explosives/improvised explosive device precursor COI at or above the STQ?	If your facility currently possesses any of the listed chemicals or possessed them within the past 60 days in an amount at or above the applicable STQs, you should select the chemical(s) from the list (see Table 7.4). Some chemicals have more than one STQ. <ul style="list-style-type: none"> <li>• The default settings indicate that the chemical is not present at the facility; thus, your facility must affirmatively change the answer for each chemical it possesses or possessed at the facility within the past 60 days.</li> <li>• Select all applicable chemicals from the list and select Yes at the end to affirm that your facility has diligently reviewed the list.</li> </ul>

Security Issue	STQ	COI to Exclude	COI to Include	Minimum Concentration
Theft/Diversions-EXP/IEDP	15–400 lbs	27.203(a)	27.203(c)	27.204(b)(3)

**Table 7.4: Summary of General Rules for Theft/Diversions-EXP/IEDP COI at 6 CFR Part 27**

### 7.4.1 Calculating Theft/Diversions-EXP/IEDP COI

To calculate whether your facility possesses any of the theft/diversion-EXP/IEDP COI at or above the STQ, your facility shall only include theft/diversion-EXP/IEDP COI in a transportation packaging, as defined in 49 CFR § 171.8. This includes—but is not limited to—cylinders, bulk bags, bottles (inside or outside of a box), cargo tanks, and tank cars. Accordingly, your facility shall count all commercial grades of theft/diversion-EXP/IEDP COI in transportation packaging(s) in laboratories toward the STQ. **NOTE:** The laboratory quantities exclusion in § 27.203(b)(2) does **not** apply to theft/diversion-EXP/IEDP COI.

To calculate whether your facility possesses any of the listed theft/diversion-EXP/IEDP COI at or above the STQ, your facility does **not** need to include COI that is:

- Used as a structural component (e.g., a facility need not include COI embedded in foam insulation toward the facility's STQ for that chemical);
- Used as products for routine janitorial maintenance;
- Contained in food, drugs, cosmetics, or other personal items used by employees;
- In process water or non-contact cooling water drawn from environment or municipal sources;
- In air as compressed air or as part of combustion;
- Contained in articles, as defined in 40 CFR § 68.3;
- In solid waste (including hazardous waste) regulated under the Resource Conservation and Recovery Act, 42 U.S.C. § 6901 *et seq.*, except for the waste described in 40 CFR § 261.33;
- In naturally occurring hydrocarbon mixtures prior to entry of the mixture into a natural gas processing plant or a petroleum refining process unit (e.g., condensate, crude oil, field gas, and produced water as defined by 40 CFR § 68.3).

### 7.4.2 Calculating Minimum Concentration of Theft/Diversions-EXP/IEDP COI

The minimum concentration provision for theft/diversion-EXP/IEDP COI is located at 6 CFR § 27.204(b)(3). The minimum concentration provision for theft/diversion-EXP/IEDP COI is A Commercial Grade (ACG). ACG is defined in 6 CFR §27.105 as “any quality or concentration of a chemical of interest offered for commercial sale that a facility uses, stores, manufactures, or ships.” For each theft/diversion-EXP/IEDP COI, your facility shall count the total quantity of all commercial grades of the COI toward the STQ.

However, if a specific minimum concentration is assigned in the minimum concentration column of Appendix A, your facility should count the total quantity of all commercial grades of the chemical at or above the specified minimum concentration.

- Hydrogen peroxide is an example of a theft/diversion-EXP/IEDP COI with a specific minimum concentration. Hydrogen peroxide is manufactured and used in various commercial grades depending on its intended use. DHS listed hydrogen peroxide in Appendix A with a specific concentration, “at least 35%,” thus, a facility that possesses 400 pounds or more of at least 35 percent hydrogen peroxide must complete a Top-Screen.
- In Appendix A, DHS lists two forms of ammonium nitrate (AN) for the security issue of theft:
  - **AN (explosive form)** with more than 0.2 percent combustible substances, including any organic substance calculated as carbon to the exclusion of any other added substance, has an STQ of 400. The STQ for this form of AN is 400 pounds. A facility must count the total of any commercial grade of this form of AN toward that STQ.
  - **AN (solid, commonly used as a fertilizer)** with a nitrogen concentration of 23 percent or greater. The STQ for this form of AN is 2,000 pounds. A facility must count this form of AN when it accounts for 33% or more of a mixture.

### 7.4.3 Describing Theft/Diversion-EXP/IEDP COI

After you identify all of the theft/diversion-EXP/IEDP COI that your facility possesses at or above the STQ, the Top-Screen will display all of the theft/diversion-EXP/IEDP COI with their CAS numbers in a list. Select all of the following that describe theft/diversion-EXP/IEDP COI at your facility:

- **Portable:** The theft/diversion-EXP/IEDP COI is portable. Portable is defined as either man-portable (i.e., movable by 1-3 people without the aid of powered mechanical devices) or mechanically portable (i.e., movable with the aid of a fork lift, truck, or crane).
- **Bulk Transport:** The theft/diversion-EXP/IEDP COI is included in a shipment that is required to carry a placard pursuant to the provisions of subpart F of 49 CFR Part 172. Specifically, the COI is in a package or container such as a tank car(s), a rail car(s), or other large storage container(s) that could be hitched to a vehicle for removal from a site.
- **Bulk Storage:** The theft/diversion-EXP/IEDP COI is in a package or container from which the COI could be safely transferred into a portable package or container.



## 7.5 Theft/Diversion-Weapon of Mass Effect COI

DHS identifies theft/diversion-weapons of mass effect (WME) COI as those that could be stolen or diverted and used directly as WME.

Top-Screen Question	Question Details
Theft/Diversion-Weapons of Mass Effect (WME) COI Present at the Facility: Does the facility manufacture, process, use, store, or distribute any of the theft/diversion-weapons of mass effect COI at or above the STQ?	If your facility currently possesses any of the listed chemicals or possessed them within the past 60 days in an amount at or above the applicable STQs, you should select the chemical(s) from the list (see Table 7.5). Some chemicals have more than one STQ. <ul style="list-style-type: none"> <li>• The default settings indicate that the chemical is not present at the facility; thus, your facility must affirmatively change the answer for each chemical it possesses or possessed at the facility within the past 60 days.</li> <li>• Select all applicable chemicals from the list and select Yes at the end to affirm that your facility has diligently reviewed the list.</li> </ul>

Security Issue	STQ	COI to Exclude	COI to Include	Minimum Concentration
Theft/Diversion-WME	15 - 500 lbs	27.203(a)	27.203(c)	27.204(b)(2)

**Table 7.5: Summary of General Rules for Theft/Diversion-WME COI at 6 CFR Part 27**

### 7.5.1 Calculating Theft/Diversions-WME COI

To calculate whether your facility possesses any of the theft/diversion-WME COI at or above the STQ, your facility shall only include theft/diversion-WME COI in a transportation packaging, as defined in 49 CFR § 171.8. This includes—but is not limited to—cylinders, bulk bags, bottles (inside or outside of a box), cargo tanks, and tank cars. Accordingly, your facility should count all theft/diversion-WME COI in transportation packaging in laboratories toward the STQ. For example:

- A facility that possesses 20 pounds of 1 percent arsine must complete and submit a Top-Screen to DHS.
- A facility that possesses 50 pounds of arsine contained in an article such as a semiconductor, need not consider this arsine toward the STQ.

**NOTE:** The laboratory quantities exclusion in § 27.203(b)(2) does **not** apply to theft COI.

To calculate whether your facility possesses any of the listed theft/diversion-WME COI at or above the STQ, your facility does **not** need to include COI that is:

- Used as a structural component (e.g., a facility need not include a chemical of interest embedded in foam insulation toward the facility's STQ for that chemical);
- Used as products for routine janitorial maintenance;
- Contained in food, drugs, cosmetics, or other personal items used by employees;
- In process water or non-contact cooling water drawn from environment or municipal sources;
- In air as compressed air or as part of combustion;
- Contained in articles, as defined in 40 CFR § 68.3;
- In solid waste (including hazardous waste) regulated under the Resource Conservation and Recovery Act, 42 U.S.C. § 6901 *et seq.*, except for the waste described in 40 CFR § 261.33;
- In naturally occurring hydrocarbon mixtures prior to entry of the mixture into a natural gas processing plant or a petroleum refining process unit (e.g., condensate, crude oil, field gas, and produced water, as defined by 40 CFR § 68.3).

### 7.5.2 Calculating Minimum Concentration of Theft/Diversions-WME COI

The minimum concentration provision for theft/diversion-WME COI is located at 6 CFR § 27.204(b)(2). If a theft/diversion-WME COI is present in a mixture at or above the minimum concentration amount listed in the minimum concentration column, a facility shall count the entire amount of the mixture toward the STQ. For example, a facility that possesses a 16 pound mixture that contains 7 percent fluorine must complete and submit a Top-Screen for that COI.

### 7.5.3 Describing Theft/Diversions-WME COI

After you identify all of the theft/diversion-WME COI that your facility possesses at or above the STQ, the Top-Screen will display all of the theft/diversion-WME COI with their CAS numbers in a list. Select all of the following that describe theft/diversion-WME COI at your facility:

- **Portable:** The theft/diversion-WME COI is portable. Portable is defined as either man-portable (i.e., movable by 1-3 people without the aid of powered mechanical devices) or mechanically portable (i.e., movable with the aid of a fork lift, truck or crane).
- **Bulk Transport:** The theft/diversion-WME COI is included in a shipment that is required to carry a placard pursuant to the provisions of subpart F of 49 CFR Part 172. Specifically, the COI is in a package or container such as a tank car(s), a rail car(s), or other large storage container(s) that could be hitched to a vehicle for removal from a site.
- **Bulk Storage:** The theft/diversion-WME COI is in a package or container from which the COI could be safely transferred into a portable package or container.

## 7.6 Theft/Diversions-Chemical Weapons/Chemical Weapon Precursor COI

DHS identifies Theft/Diversions-Chemical Weapons (CW)/Chemical Weapons Precursor (CWP) COI as those that could be stolen or diverted and used as CW or easily converted into CW.

Top-Screen Question	Question Details
Theft/Diversions-Chemical Weapons/Chemical Weapons Precursor (CW/CWP) COI Present at the Facility: Does the facility manufacture, process, use, store, or distribute any of the theft/diversion-CW/CWP COI at or above the STQ?	If your facility currently possesses any of the listed chemicals or possessed them within the past 60 days in an amount at or above the applicable STQs, you should select the chemical(s) from the list (see Table 7.6). Some chemicals have more than one STQ. <ul style="list-style-type: none"> <li>• The default settings indicate that the chemical is not present at the facility; thus, your facility must affirmatively change the answer for each chemical it possesses or possessed at the facility within the past 60 days.</li> <li>• Select all applicable chemicals from the list and select Yes at the end to affirm that your facility has diligently reviewed the list.</li> </ul>

Security Issue	STQ	COI to Exclude	COI to Include	Minimum Concentration
Theft/Diversions-CW/CWP	CUM 100 grams*-220 lbs	27.203(a)	27.203(c)	27.204(b)(1)

**Table 7.6: Summary of General Rules for Theft/Diversions-CW/CWP COI at 6 CFR Part 27**

*\*CUM 100g means a cumulative STQ of 100 g for those theft/diversion-CW/CWP COI being noted as CUM 100g. This is an aggregate amount for all such theft/diversion – CW/CWP COI, not a per-chemical STQ.*

### 7.6.1 Calculating Theft/Diversions-CW/CWP COI

To calculate whether a facility possesses any of the theft/diversion-CW/CWP COI at or above the STQ, your facility shall only include such theft COI in a transportation packaging, as defined in 49 CFR § 171.8. This includes—but is not limited to—cylinders, bulk bags, bottles (inside or outside of a box), cargo tanks, and tank cars. Accordingly, your facility should count all theft/diversion-CW/CWP COI in transportation packaging in laboratories toward the STQ. **NOTE:** The laboratory quantities exclusion in § 27.203(b)(2) does **not** apply to theft COI.

To calculate whether your facility has any of the listed theft/diversion-CW/CWP COI at or above the STQ, your facility does **not** need to include COI that is:

- Used as a structural component (e.g., COI embedded in foam insulation at the facility would not be counted toward the facility's STQ of those COI);
- Used as products for routine janitorial maintenance;
- Contained in food, drugs, cosmetics, or other personal items used by employees;
- In process water or non-contact cooling water drawn from environment or municipal sources;
- In air as compressed air or as part of combustion;
- Contained in articles, as defined in 40 CFR § 68.3 (e.g., the quantity of vinylidene chloride contained in flexible plastic food wrap that is found at the facility would not be counted toward the facility's STQ of vinylidene chloride);
- In solid waste (including hazardous waste) regulated under the Resource Conservation and Recovery Act, 42 U.S.C. § 6901 *et seq.*, except for the waste described in 40 CFR § 261.33;
- In naturally occurring hydrocarbon mixtures prior to entry of the mixture into a natural gas processing plant or a petroleum refining process unit (e.g., condensate, crude oil, field gas, and produced water as defined by 40 CFR § 68.3).

### 7.6.2 Calculating Minimum Concentration of Theft/Diversions-CW/CWP COI

The minimum concentration provision for theft/diversion-CW/CWP COI is located at 6 CFR § 27.204(b)(1). If CUM 100g appears in the minimum concentration column in Appendix A for a theft/diversion-CW/CWP, your facility shall total the quantity of all such designated chemicals in its possession to determine whether the facility possesses theft/diversion-CW/CWP chemicals that meet or exceed the STQ of 100 grams. That STQ is cumulative for all such theft/diversion-CW/CWP COI; it is not a chemical-specific STQ.

Where a theft/diversion-CW/CWP COI is not designated by “CUM 100g” in Appendix A and the chemical is present at or above the minimum concentration amount listed in the minimum concentration column of Appendix A, your facility shall count the entire amount of the mixture toward the STQ.

### 7.6.3 Describing Theft/Diversion-CW/CWP COI

After you identify all of the theft/diversion-CW/CWP COI that your facility possesses at or above the STQ, the Top-Screen will display all of the theft/diversion-CW/CWP COI with their CAS numbers in a list. Select all of the following that describe each theft/diversion-CW/CWP COI at your facility:

- **Portable:** The theft/diversion-CW/CWP COI is portable. Portable is defined as either man-portable (i.e., movable by 1-3 people without the aid of powered mechanical devices) or mechanically portable (i.e., movable with the aid of a fork lift, truck, or crane).
- **Bulk Transport:** The theft/diversion-CW/CWP COI is included in a shipment that is required to carry a placard pursuant to the provisions of subpart F of 49 CFR Part 172. Specifically, the COI is in a package or container such as a tank car(s), a rail car(s), or other large storage container(s) that could be hitched to a vehicle for removal from a site.
- **Bulk Storage:** The theft/diversion-CW/CWP COI is in a package or container from which the COI could be safely transferred into a portable package or container.

## 7.7 Sabotage/Contamination COI

DHS identifies Sabotage/Contamination COI as those that, if mixed with readily-available materials, have the potential to create significant adverse consequences for human life or health.

Top-Screen Question	Question Details
<p>Sabotage/Contamination COI Shipped: Does the facility ship any of the listed Sabotage/Contamination COI from its facility for which it is required to placard the shipment of the COI under Department of Transportation (DOT) Hazardous Materials regulations?</p>	<p>Your facility meets the STQ for a sabotage/contamination COI if it ships the chemical and is required to placard the shipment pursuant to the provisions of subpart F of 49 CFR part 172. If your facility ships any of sabotage/contamination COI from the facility in an amount that requires a placard or did so in the past 60 days, select the COI from the list provided.</p> <ul style="list-style-type: none"> <li>• The default settings for the list indicate that the COI is not shipped from the facility; thus you must affirmatively change the answer for each COI shipped from your facility.</li> <li>• Select all applicable COI from the look-up table and select Yes at the end to affirm that your facility has diligently reviewed the list.</li> </ul>

Security Issue	STQ	COI to Exclude	COI to Include	Minimum Concentration
Sabotage/Contamination COI	A Placarded Amount	27.203(a)	27.203(d)	27.204(c) ACG

**Table 7.7: Summary of General Rules for Sabotage/Contamination COI at 6 CFR Part 27**

### 7.7.1 Calculating Sabotage/Contamination COI

To calculate whether your facility possesses any of the listed Sabotage/Contamination COI at or above the STQ, your facility does **not** need to include COI that is:

- Used as a structural component (e.g., a facility need not include a chemical of interest embedded in foam insulation toward the facility's STQ for that chemical);
- Used as products for routine janitorial maintenance;
- Contained in food, drugs, cosmetics, or other personal items used by employees;
- In process water or non-contact cooling water drawn from environment or municipal sources;
- In air as compressed air or as part of combustion;
- Contained in articles, as defined in 40 CFR § 68.3;
- In solid waste (including hazardous waste) regulated under the Resource Conservation and Recovery Act, 42 U.S.C. § 6901 *et seq.*, except for the waste described in 40 CFR § 261.33;
- In naturally occurring hydrocarbon mixtures prior to entry of the mixture into a natural gas processing plant or a petroleum refining process unit (e.g., condensate, crude oil, field gas, and produced water as defined by 40 CFR § 68.3).

### 7.7.2 Calculating Minimum Concentration of Sabotage/Contamination COI

The minimum concentration provision for sabotage/contamination COI is located in 6 CFR § 27.204(c). The minimum concentration for sabotage/contamination COI is A Commercial Grade (ACG). For each sabotage/contamination COI, your facility shall count the total quantity of all commercial grades of the chemical toward the STQ of APA. A Commercial Grade (ACG) is defined in §27.105 as "any quality or concentration of a chemical of interest offered for commercial sale that a facility uses, stores, manufactures, or ships." For example:

- A facility that manufactures and ships a placarded amount of commercial grade aluminum phosphide to a producer of crop protection products must complete and submit a Top-Screen.



- Conversely, a facility that possesses a fumigant that contains the sabotage/contamination COI aluminum phosphide does not need to count the aluminum phosphide contained in the fumigant toward the STQ because it is neither a commercial grade of the COI nor is the facility shipping a placarded amount of this COI.

## 7.8 Mission Critical Chemicals

All petroleum refinery, LNG storage, and chemical manufacturing facilities will be directed to the Mission Critical Chemicals section when completing the Top-Screen. In this section, your facility will answer questions about any chemicals for which they produce 20 percent or more of the domestic production, regardless of whether or not the chemical is a COI listed in Appendix A.

For purposes of this portion of the Top-Screen, critical infrastructure sectors include:

- **Defense Industrial Base**, which involves the Department of Defense, government, and private-sector facilities that perform research and development, design, produce, or maintain military weapon systems, subsystems, components, or parts to meet military requirements.
- **Public Health and Healthcare**, which involves public or private facilities that provide health-care services to the individual or to the community, whether the services are provided at the workplace, in academic institutions, or in the military, as well as supporting services.
- **Energy (electric generation only)**, which involves facilities converting other forms of energy (e.g., water power, fossil fuels, nuclear power, solar power) into electrical energy.
- **Public Drinking Water**, which involves facilities that serve at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents.

Top-Screen Question	Question Details
Mission Critical Production: Does this facility account for 20 percent or more of the domestic production of any chemical and supply the chemical to one or more critical infrastructure sectors?	Select <i>Yes</i> or <i>No</i> . Your facility may produce more than one chemical that meets the criteria. Facilities should consider chemicals listed on Appendix A as well as those that are <b>not</b> on Appendix A when determining whether their chemical production meets the criteria.

If the response is Yes and your facility accounts for 20 percent or more of the domestic production of any one chemical that is supplied to one or more critical infrastructure sectors listed above, your facility will be asked to supply the name and then to provide additional information about each such chemical (see Picture 7.5).

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Enter the chemical name(s) that account for 20% of the domestic production to one or more critical infrastructure sectors. The critical infrastructure sectors are defined as Defense Industrial Base, Energy (electric generation only), Public Health and Healthcare, or Public Drinking Water.

Click the "Add" button after entering the chemical name. Then click "Describe" and provide the requested information.

[Q.9.1-693]

Chemical Name
XYZ Chemical

Delete Describe: XYZ Chemical

Add

Have you listed all chemicals that account for 20% of the domestic production to one or more critical infrastructure sectors?

Check Yes [Q.9.1-2772]

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Picture 7.5: Adding/Describing Mission Critical Chemicals Screen

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Top-Screen Question	Question Details
Further Chemical Information	<p>Provide the name of any chemical that your facility accounts for 20 percent or more of its domestic production and is supplied to one or more of the critical infrastructure sectors. If your facility has more than one such chemical, click the [Add] button to add rows. For each chemical, click the [Describe] button and enter the following information:</p> <ul style="list-style-type: none"> <li>• CAS number (if available).</li> <li>• Any other name by which the chemical is commonly known (e.g., trinitrophenol is also known as picric acid).</li> <li>• Your facility's estimated domestic market share of the chemical. Select the appropriate range from the drop-down menu.</li> <li>• The primary application of the chemical by your facility's customer(s) (e.g., a chemical used to treat drinking water may be described in this field as "water treatment chemical").</li> <li>• The primary sector for which your facility produces the chemical. Select from the list all that apply for each chemical.</li> <li>• Whether there is an exact or direct substitute(s) available for the chemical produced to meet the needs of your facility's customers. Select <i>Yes</i> or <i>No</i>. If <i>Yes</i>, select whether the exact or direct substitute is produced in North America or overseas.</li> <li>• Whether a functional substitute(s) is available. Select <i>Yes</i> or <i>No</i>. If <i>Yes</i>, select whether the functional substitute is produced in North America or overseas. A functional substitute is another chemical that can accomplish the same function as the chemical made by your facility. For example, one solvent could be substituted for another solvent in the same application with little impact on product quality or processing.</li> </ul>
Select the facility's estimated annual average Capacity Utilization Rate	Select your facility's estimated annual average Capacity Utilization Rate from the range of values provided in the drop-down menu, see section 7.8.1.

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Top-Screen Question	Question Details
Select the facility's estimated National Emergency Production Rate.	Select your facility's estimated National Emergency Production Rate for the chemical from the range of values provided in the drop-down menu, see section 7.8.2.
Enter the total annual production.	<p>Enter the total annual production of the chemical (in pounds/year) from your facility. This information is similar to that which is reported under EPA's Inventory Update Rule (for updating the Toxic Substances Control Act Chemical Inventory Database) for the organic and inorganic substances manufactured or imported in quantities of 25,000 pounds per facility per reporting year. Report production only, not imports.</p> <ul style="list-style-type: none"> <li>• If the chemical is <b>not</b> on the Toxic Substances Control Act (TSCA) inventory, provide an estimate of your annual production.</li> <li>• Do not use commas when entering this information.</li> </ul>
The estimated replacement cost of the production unit(s).	<p>Select the appropriate range of the estimated replacement cost of the production unit(s) for the chemical at your facility from the drop-down menu. Replacement cost(s) apply to the production unit(s) related to the manufacture of this chemical and any other facility property likely to be damaged beyond repair that would need to be replaced to restore the original functionality of the unit or equipment to its design productivity levels.</p> <ul style="list-style-type: none"> <li>• The economic value to repair or replace the damaged or destroyed unit(s) and its associated equipment, plus the economic value of any lost products, should be estimated in U.S. dollars.</li> <li>• For the purposes of this analysis, use the historic (undepreciated) cost of the facility property plus the undepreciated value of betterments/ improvements (excluding maintenance and repair) to the production unit, less the amount that is covered by insurance.</li> </ul>
Confirm that all chemicals have been listed and described.	Confirm that all chemicals have been listed and described by selecting Yes. If more chemicals need to be listed and described, return to the appropriate screen and continue to add and describe the chemicals that meet the criteria.

### 7.8.1 Capacity Utilization Rate

The Capacity Utilization Rate is also known as the “operating rate for production” of a chemical or product at a facility. The information requested by the Top-Screen is the same as that which may have already been provided as part of the U.S. Census Bureau’s Survey of Plant Capacity Utilization form (form MQ-C1, question 2c), which is available at <http://bhs.econ.census.gov/BHS/index.html> (see Picture 7.6).

The Survey of Plant Capacity Utilization provides current data on the rates of capacity utilization in U.S. manufacturing plants. The survey collects information annually from approximately 17,000 manufacturing facilities with more than five employees. The answers to these Census Bureau questions may be available from the facility or its corporate financial department. Whereas data are reported on the Census Bureau survey for one quarter, DHS is seeking an estimate of the data for a one-year period. The instructions for calculating the full production rate for the survey are available at <http://www.census.gov/cir/www/mqc1pag2.html>.

FORM <b>MQ-C1</b> (11-17-2005)		OMB No. 0607-0175: Approval Expires .....				
		U.S. DEPARTMENT OF COMMERCE Economics and Statistics Administration U.S. CENSUS BUREAU				
<b>SURVEY OF PLANT CAPACITY UTILIZATION</b> <b>FOURTH QUARTER 2005 (October–December)</b>						
<b>Item 2</b>	<b>VALUE OF PRODUCTION</b>	<b>ACTUAL PRODUCTION</b>				
		4th QTR. 2005		4th QTR. 2004		
		\$	Mil.	Thou.	Mil.	Thou.
a.	Report market value of <b>actual production</b> for the 4th quarter of 2005 . . . . .	23				
b.	Estimate the market value of production of this plant as if it had been operating at <b>full production capability</b> in the 4th quarter of 2005. . . . . Assume:	<b>FULL PRODUCTION CAPABILITY</b>				
		4th QTR. 2005		4th QTR. 2004		
		\$	Mil.	Thou.	Mil.	Thou.
	<ul style="list-style-type: none"> <li>• only machinery and equipment <b>in place and ready to operate</b>.</li> <li>• normal downtime.</li> <li>• Labor, materials, utilities, etc. <b>ARE FULLY AVAILABLE</b>.</li> <li>• the number of shifts, hours of operation, and overtime pay that can be <b>sustained</b> under <b>normal</b> conditions and a <b>realistic</b> work schedule in the long run.</li> <li>• the <b>same product mix</b> as in the fourth quarter.</li> </ul>	34				
c.	Divide your <b>actual production estimate</b> by your <b>full production estimate</b> . Multiply this ratio by 100 to get a percentage. <i>Enter this percentage in the box.</i>	<b>Capacity Utilization:</b> <input style="width: 50px;" type="text"/>				
	Is this a reasonable estimate of your sustainable capacity use in the 4th quarter?	<input type="checkbox"/> Yes <input type="checkbox"/> No – <i>Please review your full production estimate</i>				

Picture 7.6: Survey of Plant Capacity Utilization

### 7.8.2 National Emergency Production Rate

The National Emergency Production Rate is the maximum amount of production that a facility can expect to attain and sustain for one year or more during national emergency conditions. The National Emergency Production Rate is estimated by dividing the average amount of chemical or product produced over the year by the amount that could have been produced if the plant had been operating under national emergency conditions during that period. The rate of production at national emergency levels should be greater than or equal to the rate of full production capability. For detailed definitions and instructions for calculating the National Emergency Production Rate, review the instructions for Item 5 on the Annual Plant Capacity Utilization Survey at <http://www.census.gov/cir/www/mqc1pag2.html>.

## 7.9 Economically Critical Chemicals

This section of the Top-Screen relates to chemicals that are critical to the national economy or to other critical infrastructure sectors that are not included in the Mission Critical Chemical section. In this section, your facility will answer questions about chemicals for which it accounts for 35 percent or more of the domestic production irrespective of whether the chemical is listed on Appendix A.

Top-Screen Question	Question Details
Total Production Value	<p>Only manufacturers are required to provide a dollar amount in response to this question. All other entities, such as distributors and retailers, should enter a "0" in response to this question.</p> <ul style="list-style-type: none"> <li>• Enter the total production value of products (not just Appendix A COI) shipped and other receipts from the facility.</li> <li>• Enter the whole number without commas or dollar signs (e.g., enter 1200000 not 1.2 million).</li> </ul>

- For the purpose of this question, CFATS defines a manufacturer the same way as the U.S. Census Bureau. The US Census Bureau requires all domestic establishments that are classified in NAICS sector 31-33, Manufacturing. The list of manufacturing NAICS required to complete the ASM are found on the US Census Bureau Web site at <http://www.census.gov/indicator/www/m3/appendixb.pdf>.
- The Total Production Value will be the same as that provided in the Annual Survey of Manufacturers (ASM), which provides sample estimates of statistics for all manufacturing establishments with one or more paid employees. The U.S. Census

Bureau conducts the ASM in each of the four years between the Economic Census that is collected for years ending in two and seven. In the Economic Census, manufacturing is the sample frame from which the ASM is chosen and presents more detailed data than the ASM. Among the statistics included in this survey are:

- Employment
- Payroll
- Value added by manufacturing
- Cost of materials consumed
- Value of shipments
- Detailed capital expenditures
- Supplemental labor costs
- Fuels and electric energy used
- Inventories by stage of fabrication.

More information is available at <http://bhs.econ.census.gov/BHS/index.html>.

- Facilities that responded to the 2006 ASM should provide the response to survey Question 5, “SALES, SHIPMENTS, RECEIPTS, OR REVENUE — Total value of products shipped and other receipts (rounded to thousands of dollars).” If the facility/company took part in this survey, the answers to the survey questions are probably available from the facility or from the corporate financial department. Picture 7.7 is extracted from the 2006 Annual Survey of Manufacturers.

<b>5</b> SALES, SHIPMENTS, RECEIPTS, OR REVENUE  Total value of products shipped and other receipts (Report detail in 2.). . . . . 0100 <input type="checkbox"/>	2006			2005
	\$ Bil.	Mil.	Thou.	\$ Thou.

Mark "X" if None

Picture 7.7: Form MA-1000(S) (10-11-2006), Question 5

Report the total value of products shipped, including interplant transfers, exports, and other receipts as entered in item 22 of the ASM. The value in item 5 should be the same as the value reported in item 22, code 7700000.

**If not shown, please enter your 11-digit Census File Number (CFN) from the mailing address.**

**22** DETAIL OF SALES, SHIPMENTS, RECEIPTS, OR REVENUE

If you cannot locate the description of any products that you produce, please enter a description of your products in column (a) and enter their value in column (c). If additional lines are needed please use the "REMARKS" section. Report separately for each major kind of product. Include the value of products exported and interplant transfers in the appropriate product line. They should also be reported separately in 5.

An asterisk (\*) at the end of a description denotes a comparability with products collected on a Current Industrial Report (CIR) questionnaire. See paragraph on "Comparability" in Part C of CIR instruction manual for item code references.

Enter TOTAL value of shipments under code 7700000.

Products and services (a)	Product Class code (b)	Products shipped and other receipts, including interplant transfers and exports			
		2006 (c)			2005 (d)
		\$ Bil.	Mil.	Thou.	\$ Thou.
	018				

Picture 7.8: Form MA-1000(S) (10-11-2006), Question 22



- Facilities may provide the response from the previous survey if the numbers accurately reflect **current** facility operations. Otherwise, the facility should calculate the amount using instructions for the most recent survey. For more information on the Economic Census, see <http://www.census.gov/econ/census02/index.html>.

Top-Screen Question	Question Details
Production of Economically Critical Chemicals: Does this facility account for 35 percent or more of the domestic production of any chemical, excluding the production of chemicals for critical infrastructure sectors covered in the Mission Critical Chemical section above (Defense Industrial Base, Public Health and Healthcare, Energy [electric generation only], Public Drinking Water)?	If your facility produces a chemical that is critical to the continued operation of other U.S. manufacturing, including, but not limited to, mining, construction, information, finance, government, or service sector of the U.S. economy (excluding the mission critical infrastructure sectors defined above), does your facility account for more than 35 percent of the total U.S. production volume of this chemical? In other words, does the production of this chemical from your facility represent a market share larger than 35 percent? Select <i>Yes</i> or <i>No</i> .

- The market share is calculated as the facility’s production divided by the total U.S. production for a particular chemical in volume terms. An estimate of the total U.S. production volume of a particular chemical in the facility’s production portfolio should be available from a company’s marketing department.

$$\text{Market Share} = \frac{\text{Facility Production of Chemical X (in volume terms)}}{\text{Total U.S. Production of Chemical X (in volume terms)}}$$

Top-Screen Question	Question Details
Additional Chemical Specific Information	<p>Provide the name of any chemical that your facility accounts for 35 percent or more of its domestic production and is supplied to one or more of the other economic sectors. If your facility has more than one such chemical, click the [Add] button to add rows. For each chemical, click the [Describe] button and enter the following information:</p> <ul style="list-style-type: none"> <li>• CAS number (if available).</li> <li>• Any other name by which the chemical is known (e.g., trinitrophenol is also known as picric acid).</li> <li>• Your facility's estimated domestic market share of the chemical. Select the appropriate range from the drop-down menu.</li> <li>• The application of the chemical by your facility's customer(s). Select the application(s) of the chemical by your facility's customer(s) from the list provided. Select <i>Yes</i> for all that apply. If there are other applications that are not listed, select <i>Yes</i> for "other applications" and enter a description of the other application(s) of the chemical by your facility's customer(s) that were not listed on the previous page.</li> <li>• The primary market sector for which your facility produces the chemical. Select the primary sector(s) from the list provided for which your facility produces the chemical. Select <i>Yes</i> for all that apply. If there are other applications that are not listed, select <i>Yes</i> for "other primary sectors" and enter a brief description of the other primary sector(s) not listed on the next page.</li> <li>• Whether there is an exact or direct substitute(s) available for the chemical produced to meet the needs of your facility's customers. Select <i>Yes</i> or <i>No</i>. If <i>Yes</i>, select whether the exact or direct substitute is produced in North America or overseas.</li> <li>• Whether a functional substitute(s) is available. Select <i>Yes</i> or <i>No</i>. If <i>Yes</i>, select whether the functional substitute is produced in North America or overseas.</li> <li>• Your facility's estimated annual average Capacity Utilization Rate from the range of values provided in the drop-down menu. Use the instructions in Section 7.8 to calculate this information.</li> <li>• Your facility's estimated National Emergency Production Rate for the chemical from the range of values provided in the drop-down menu. Use the instructions in Section 7.8 to calculate this information.</li> <li>• Annual production rate of mission critical chemicals. Enter the total annual production of the chemical (in pounds/year) from your facility. Do not use commas when entering the information.</li> </ul>

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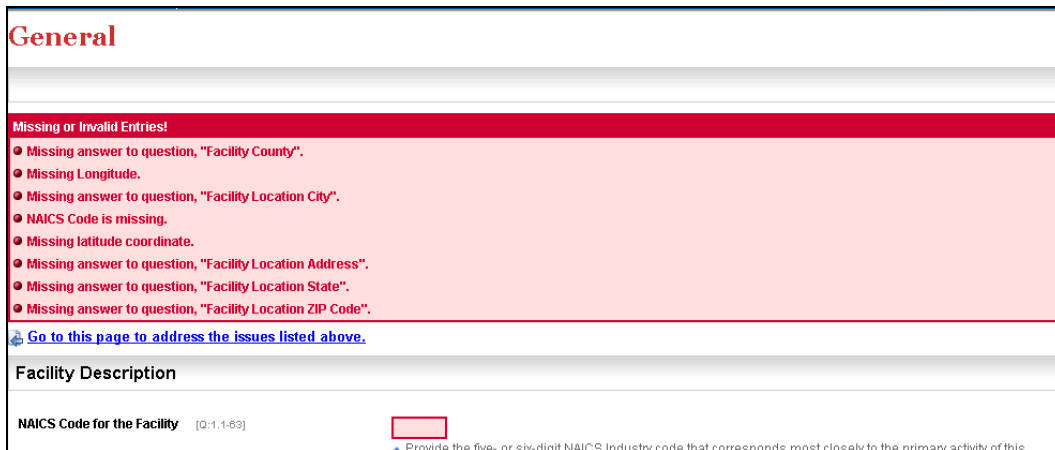
<b>Top-Screen Question</b>	<b>Question Details</b>
	<ul style="list-style-type: none"><li>• The estimated replacement cost(s) of the production unit(s) for this chemical at your facility. Use the instructions in Section 7.8 to calculate this information.</li><li>• Confirm that all chemicals have been listed and described by selecting Yes. If more chemicals need to be listed or described, return to the appropriate screen and continue to list and describe the chemicals that meet the criteria until complete.</li></ul>

## 8. Top-Screen Completion

### 8.1 Validating Reports

The Preparer is advised to validate the information entered into Top-Screen and review it for completeness and accuracy prior to survey submission (or completion). A validation check for basic logical errors is done by selecting the **Validate Report** command on the **Top-Screen Navigation Menu** on the left side of the screen. Information that is missing or incorrectly formatted will be listed and highlighted in red, and a link will be provided to take you to the affected area to fix the error or add the missing information. Once the information has been corrected, select the **Validate Report** command again to check for any additional errors.

**NOTE:** The Top-Screen will *not* find and display errors other than missing required data or logical errors (e.g., the incorrect format for latitude/longitude or the incorrect number of digits for an EPA Identifier number). Even if no validation errors appear when the **Validation Report** command is selected, you are encouraged to print a copy of the Summary Report and review it for accuracy.



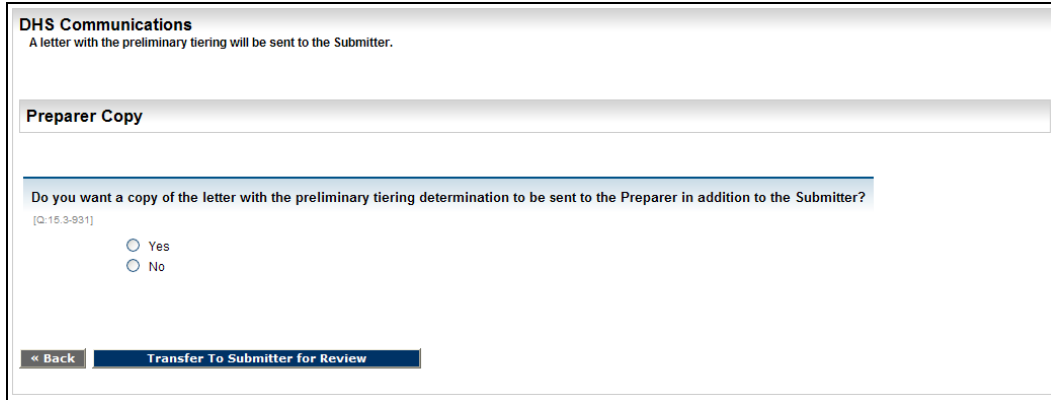
Picture 8.1: Validate Report Screen

### 8.2 Summary Reports

Select the **View Summary Report** command on the **Top-Screen Navigation Menu** on the left side of the screen to generate a report that lists the Top-Screen questions and the data entered for each.



read-only access to the data unless the Submitter sends the Top-Screen back for revisions, including the entry of additional data.



Picture 8.4: DHS Communications/Preparer Copy Screen

## 8.4 Submitter Review

After the Preparer has submitted the completed Top-Screen, the Submitter will receive an e-mail notifying him/her that the Top-Screen is ready for review. On the **CSAT Survey List** screen (see Picture 3.1), the Submitter will see the facility (or list of facilities) he/she is authorized to review and the facility's status in the review process. Surveys that are awaiting final review and submission will have the status of **In Review**.

The Submitter will select the name of the facility to review, and look through the Top-Screen to review and edit the answers supplied by the Preparer. After reviewing all of the information, the **Completion** screen will be displayed and the Submitter can either:

- Return the survey to the Preparer for edits and/or additions by clicking the [Transfer to Preparer for Modifications] button; or
- Proceed to the **Final Validation** screen by clicking the [Final Validation] button.

**NOTE:** If the Top-Screen is returned to the Preparer, its status will return to **In Progress** on the **CSAT Survey List** screen and the Preparer and Submitter will receive e-mails with additional instructions.



Picture 8.5: Submitter Review Buttons

To finish the SSP, the Submitter will click the [Final Validation] button and correct any errors or omissions. When the validation is complete, the Submitter will click the [Continue] button.



Figure 8.6: Validation Complete Screen

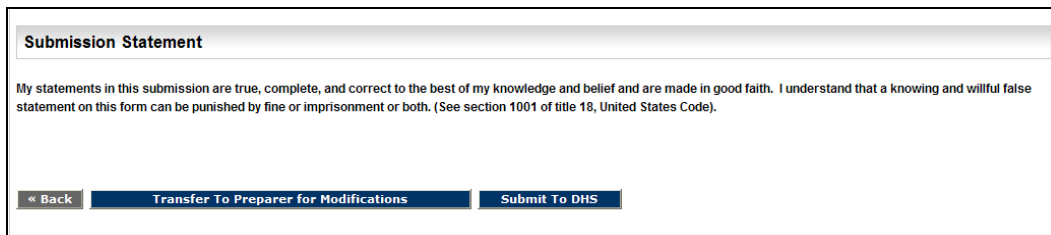
## 8.5 Printing Top-Screen Surveys

The Submitter **must** retain a copy of the completed Top-Screen for the facility's records, as specified in 6 CFR §27.255(b). This must be done prior to submission, as once the Top-Screen is submitted to DHS, a user no longer has access to the survey and will not be able to create a Summary Report.

Click the [Print Version of Top-Screen] button to generate the Summary Report. You can then choose to print the PDF file and/or save it electronically. Once generated, the report will be available from the **CSAT Survey List** Screen only until submission. **NOTE:** The printed and electronic records of the completed Top-Screen are CVI and must be protected as CVI.

## 8.6 Submitting Top-Screen Surveys

To officially submit the completed Top-Screen, the Submitter should click the [Submit to DHS] button on the **Top-Screen Finish** screen, as seen in Picture 8.7. The Submitter should be sure to read carefully and understand the Submission Statement on the **Top-Screen Finish** screen before submitting the Top-Screen.



Picture 8.7: Top-Screen Finish Screen

After receiving the submitted Top-Screen, DHS will evaluate your facility to determine whether it presents a high level of security risk. DHS will notify your facility in writing of its initial determination.

- If the preliminary determination by DHS is that your facility is a high-risk facility, it will notify your facility via a letter that it has been preliminarily determined to be high-risk. In the letter, DHS will also notify your facility of (1) its placement in a risk-based tier

pursuant to §27.220(a), and (2) the specific chemical(s) and security issue(s) that need to be addressed in the SVA. See Attachment C for an example.

- If the preliminary determination by DHS is that your facility is **not** a high-risk facility, it will send a letter stating its determination. See Attachment B for an example.

Your facility's Top-Screen submission is complete.



## List of Acronyms

ACG	A Commercial Grade
AHQ	Area of Highest Quantity
ASM	Annual Survey of Manufactures
ASME	American Society of Mechanical Engineers
CAS	Chemical Abstract Service
CCPS	Center for Chemical Process Safety
CFATS	Chemical Facility Anti-Terrorism Standards
CFR	Code of Federal Regulations
COI	Chemical(s) of Interest
CSAT	Chemical Security Assessment Tool
CUM 100g	Cumulative STQ of 100 grams for designated Chemical Weapons
CVI	Chemical-terrorism Vulnerability Information
CW/CWP	Chemical Weapons/Chemical Weapons Precursor
CWC	Chemical Weapons Convention
DHS	U.S. Department of Homeland Security
DOT	U.S. Department of Transportation
DUNS	Data Universal Numbering System
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right to Know Act
EXP/IEDP	Explosive/Improvised Explosive Device Precursor
FAQ	Frequently Asked Question
IFR	Interim Final Rule
LFL	Lower Flammability Limit
LNG	Liquefied Natural Gas
MTSA	Maritime Transportation Security Act
NAICS	North American Industrial Classification System
NFPA	National Fire Protection Association
OSHA	Occupational Safety and Health Administration
PSM	Process Safety Management
RMP	Risk Management Plan
SPR	Strategic Petroleum Reserve
SSP	Site Security Plan
STQ	Screening Threshold Quantity
SVA	Security Vulnerability Assessment
TOQ	Total On-site Quantity
WME	Weapon of Mass Effect

## Attachment A: Tools for Estimating TOQ and Amount in AHQ

### Example: TOQ Worksheet for Three COI in a Facility with Rural Topography

Where required in the Top-Screen, the TOQ must be calculated in comparison to the STQ to determine which chemicals and security issues should be evaluated in the Top-Screen. Essentially, the TOQ is the maximum quantity of each listed chemical that could be found at the facility at any one time within the past 60 days.

The TOQ is different from a worst-case scenario under EPA's RMP program in that the quantity is not limited to the amount in the single largest vessel. Rather, the TOQ in the Top-Screen is the aggregate quantity of the chemical that is found over the entire facility. Therefore, as part of the Top-Screen, each listed chemical at a facility will need to be inventoried by reviewing the following:

- Processing areas
- Storage areas (vessels as well as warehouses)
- Transportation loading and unloading operations
- Laboratories
- Any other areas at the facility where a COI is located.

When calculating the quantity at each location at the facility, the inclusions and exclusions from Appendix A (as described in Sections 7.1 through 7.3) and reasonable (and defensible) judgment should be used.

The following steps should be followed to calculate the TOQ for a single listed COI:

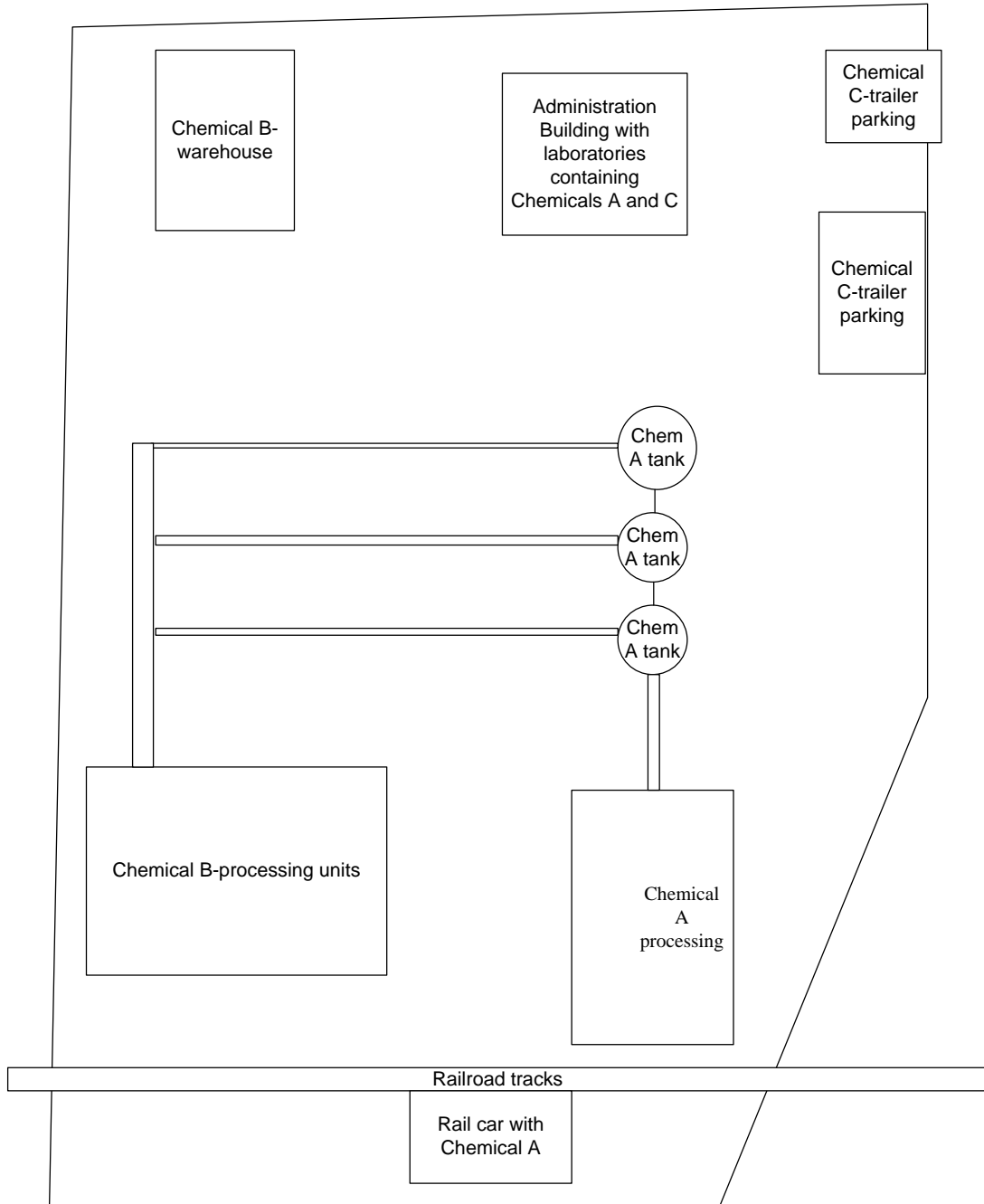
- Step 1: Identify all locations where the chemical is manufactured, used, stored, or processed.
- Step 2: Calculate the quantity associated with each location.
- Step 3: Sum the quantities from each location to determine the TOQ.

To illustrate the calculation of TOQ, an example is presented below for a facility with two listed release-toxic COI and one listed release-flammable COI. The calculation would be the same for release-explosive COI, but has been limited for simplicity.

- Chemical A: chlorine (toxic)
- Chemical B: dimethylamine (flammable)
- Chemical C: boron trifluoride (toxic)

Figure A.1 presents a plot plan showing the areas of the facility where the different COI are located. From this plot plan, it can be seen that Chemical A (chlorine) is located in a laboratory that is supervised by a technically qualified individual, includes raw material

storage tanks and a process unit, and is stored in railcars. Chemical B (dimethylamine) is located in two areas; a warehouse and a production unit. Chemical C (boron trifluoride) is found in the laboratory and two truck trailer areas.



**Figure A.1: Example Facility for Calculating TOQ**

Using the worksheets, the following data are captured for this example facility. Additionally, the Distance of Concern using RMP\*Comp must be reported in the Top-

Screen for toxics. These worksheets allow the documentation of this distance (in miles). In this example a facility is assumed to be located in a rural area (as defined in Section 7.1), and the resulting TOQ for each chemical and rural topography was used as an input into RMP\*Comp to calculate the Distance of Concern documented in the example worksheets.

<b>Chemical A: Chlorine TOQ</b>	<b>Amount</b>	<b>Distance of Concern (miles)</b>
Processing units (tanks and vessels)	3,000 pounds	
Storage (bulk storage tanks, vessels, underground caverns, etc.)	3 vessels with a total capacity of 7,500 pounds	
Tanks	-	
Railcars regularly on or adjacent to facility (Even if the railcar is not always present, include the estimated maximum amount at any one time that has been staged in railcars at the facility within the past 60 days.)	Possibility of two 90-ton railcars at the facility. 180,000 pounds each = 360,000 pounds	
Tube trailers parked at the facility (the estimated maximum amount that has been at the facility within the past 60 days)	-	
Other bulk transportation containers (tank cars, isotainers, large storage containers, etc.)	-	
Portable containers (cylinders, bags, etc.). Calculate the number of containers, multiply by the amount, and sum the results.	-	
Quantities in laboratories unless the laboratory is supervised by a technically qualified individual <sup>2</sup>	Not reported, as this laboratory is exempted	
Other _____	-	
<b>Total On-site Quantity</b> (aggregate quantity)	370,500 pounds (370,000 lbs reported)	

<sup>2</sup> See 40 CFR § 720.3 for the definition of such a laboratory supervisor.

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Chemical B: Dimethylamine TOQ	Amount	Distance of Concern (miles)
Processing units (tanks and vessels)	13,300 pounds (13,000 lbs reported)	
Storage (bulk storage tanks, vessels, underground caverns, etc.)	-	
Tanks	-	
Railcars regularly on or adjacent to facility (Even if the railcar is not always present, include the estimated maximum amount at any one time that has been staged in railcars at the facility within the past 60 days.)	-	
Tube trailers parked at the facility (the estimated maximum amount that has been at the facility within the past 60 days)	-	
Other bulk transportation containers (tank cars, isotainers, large storage containers, etc.)	-	
Portable containers (cylinders, bags, etc.). Calculate the number of containers, multiply by the amount, and sum the results.	thirty 500-pound totes in warehouse (15,000)	
Quantities in laboratories unless the laboratory is supervised by a technically qualified individual <sup>2</sup>	-	
Other _____	-	
<b>Total On-site Quantity</b> (aggregate quantity)	28,300 pounds (28,000 lbs reported)	Flammable (not reported)

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<b>Chemical C: Boron Trifluoride TOQ</b>	<b>Amount</b>	<b>Distance of Concern (miles)</b>
Processing units (tanks and vessels)	-	
Storage (bulk storage tanks, vessels, underground caverns, etc.)	-	
Tanks	-	
Railcars regularly on or adjacent to facility (Even if the railcar is not always present, include the estimated maximum amount at any one time that has been staged in railcars at the facility within the past 60 days.)	-	
Tube trailers parked at the facility (the estimated maximum amount that has been at the facility within the past 60 days)	Maximum of 1 full tube trailed at the facility. Trailer with eight 2,000-pound tubes (16,000 lbs).	
Other bulk transportation containers (tank cars, isotainers, large storage containers, etc.)	-	
Portable containers (cylinders, bags, etc.). Calculate the number of containers, multiply by the amount, and sum the results	-	
Quantities in laboratories, unless the laboratory is supervised by a technically qualified individual <sup>2</sup>	Not reported, as this laboratory is exempt.	
Other _____	-	
<b>Total On-site Quantity</b> (aggregate quantity)	16,000 pounds (16,000 reported)	

<sup>2</sup> See 40 CFR § 720.3 for the definition of such a laboratory supervisor.

## Example: AHQ and Distance of Concern Worksheet for Three COI in a Facility with Rural Topography

The AHQ is defined as an area within a circle with a radius of 170 feet, where the greatest amount of a listed toxic, flammable, or explosive COI is located. The AHQ is only reported in the Top-Screen for chemicals at or above the STQ listed for a release concern. For facilities with chemicals located in more than one area, the amount in the AHQ might be found in a single large storage vessel, in an area of densely located processing equipment, or in storage areas for raw materials, intermediates, and final products.

The calculation of AHQ for release-toxic COI is approached differently than for release-flammables/explosives when there are multiple chemicals located within the AHQ. Example calculations for each type of chemical are presented separately below.

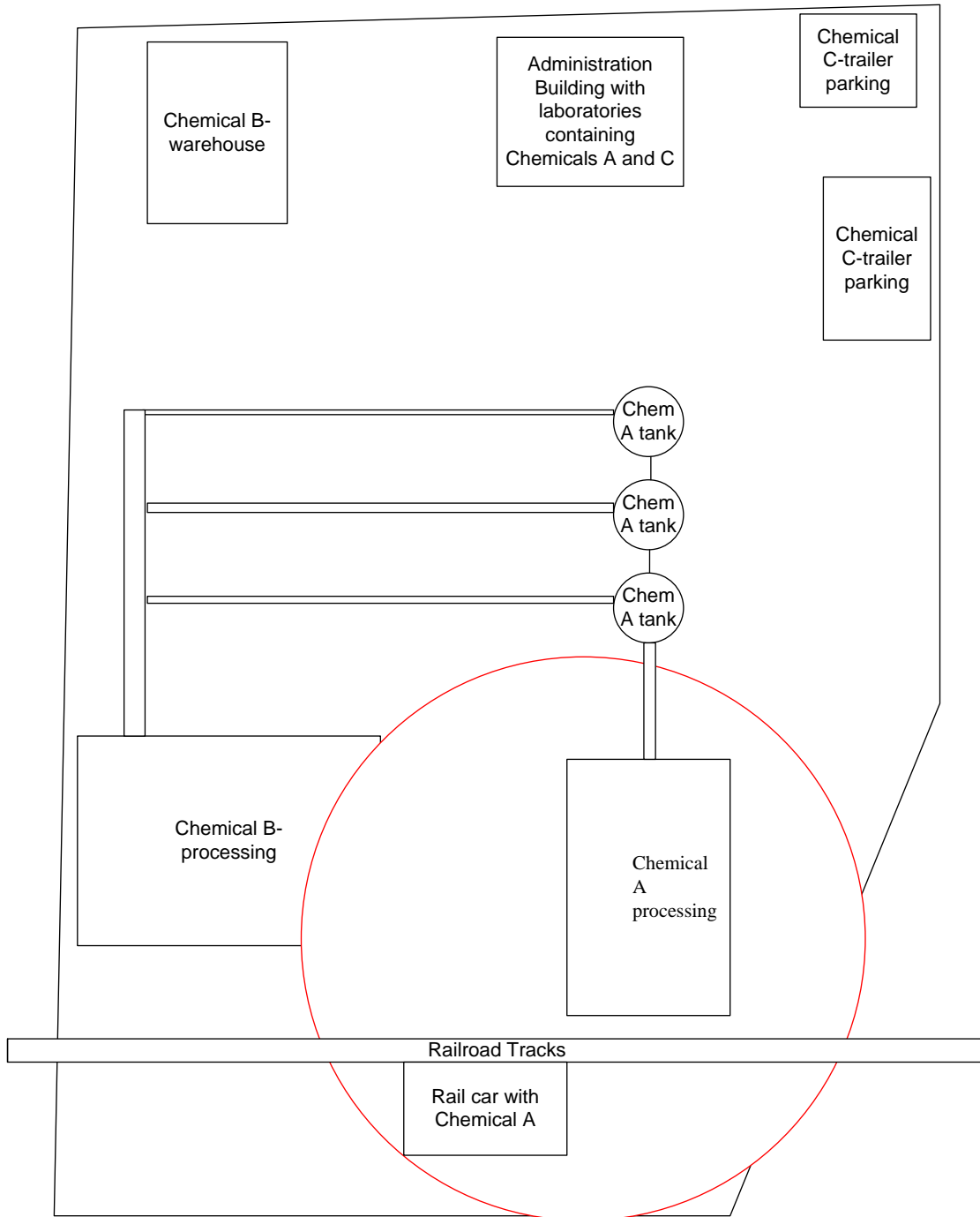
**Release-Toxic:** Building on the TOQ example for three listed chemicals above, the AHQ can be calculated. To determine the AHQ for toxic-release chemicals, the following steps are performed:

- Step 1: Overlay a circle with a radius of 170 feet on a plot plan of the facility.
- Step 2: Move the circle over or near each location where the COI is located.
- Step 3: At each location determine the quantity within the circle.
- Step 4: Report an AHQ for the COI that corresponds to the highest quantity determined at each location in Step 3.

For Chemical A the AHQ is determined by overlaying the 170-foot circle at or near the raw material storage area, railcar unloading, and the Chemical A processing unit. When the circle is moved over the facility, the following is determined:

- Raw material storage and processing units: Quantity of Chemical A in this area is 2,500 pounds in each of three storage tanks, resulting in a total of 7,500 pounds—plus 3,000 in the production unit results in a quantity of 10,500 pounds.
- Processing unit and railcar unloading: When the circle is overlaid near this area the production unit and the railcar unloading are encompassed. With 3,000 pounds in the processing unit and 360,000 pounds in the railcars, 363,000 pounds result at this location.

Therefore, the AHQ for Chemical A is 363,000 pounds, as illustrated in Figure A-2.



**Figure A.2: Example Facility for Calculating AHQ (Chemical A)**



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Moving the circle (170-foot radius) over the facility for each of the three COI results in the AHQ determinations listed below. Blank worksheets are provided at the end of this Attachment that can be used for documenting the AHQ calculation.

Chemical A: Chlorine	Amount	Distance of Concern (miles)
<b>AHQ Location: Area Encompassing Storage Tanks, Production Process, and Railcars</b>		
Processing units (tanks and vessels)	3,000 pounds	
Storage (bulk storage tanks, vessels, underground caverns, etc.)	3 vessels with a total capacity of 7,500 pounds	
Tanks	-	
Railcars regularly on or adjacent to facility (Even if the railcar is not always present, include the estimated maximum amount at any one time that has been staged in railcars at the facility within the past 60 days.)	Possibility of two 90-ton railcars at the facility. 180,000 lbs each = 360,000 lbs	
Tube trailers parked at the facility (the estimated maximum amount that has been at the facility within the past 60 days)	-	
Other bulk transportation containers (tank cars, isotainers, large storage containers, etc.)	-	
Portable containers (cylinders, bags, etc.). Calculate the number of containers, multiply by the amount, and sum the results.	-	
Quantities in laboratories unless the laboratory is supervised by a technically qualified individual <sup>2</sup>	-	
Other _____	-	
<b>Area of Highest Quantity</b> (aggregate quantity)	363,000 pounds (360,000 pounds reported)	

Chemical B: Dimethylamine AHQ	Amount	Distance of Concern (miles)
<b>AHQ Location: Area Encompassing Warehouse</b>		
Processing units (tanks and vessels)	13,300 pounds	
Storage (bulk storage tanks, vessels, underground caverns, etc.)	-	
Tanks	-	
Railcars regularly on or adjacent to facility (Even if the railcar is not always present, include the estimated maximum amount at any one time that has been staged in railcars at the facility within the past 60 days.)	-	
Tube trailers parked at the facility (the estimated maximum amount that has been at the facility over the past 12 months)	-	
Other bulk transportation containers (tank cars, isotainers, large storage containers, etc.)	-	
Portable containers (cylinders, bags, etc.). Calculate the number of containers, multiply by the amount and sum the results.	Thirty 500-pound totes in warehouse (15,000)	
Quantities in laboratories unless the laboratory is supervised by a technically qualified individual <sup>2</sup>	-	
Other _____	-	
<b>Area of Highest Quantity</b> (aggregate quantity)	15,000 pounds (15,000 lbs reported)	

Chemical C: Boron Trifluoride AHQ	Amount	Distance of Concern (miles)
<b>AHQ Location: Area Encompassing Warehouse</b>		
Processing units (tanks and vessels)	-	
Storage (bulk storage tanks, vessels, underground caverns, etc.)	-	
Tanks	-	
Railcars regularly on or adjacent to facility (Even if the railcar is not always present, include the estimated maximum amount at any one time that has been staged in railcars at the facility within the past 60 days.)	-	
Tube trailers parked at the facility (the estimated maximum amount that has been at the facility within the past 60 days)	Maximum of 1 full tube trailed at the facility. Trailer with eight 2,000-lb tubes (16,000 lbs)	
Other bulk transportation containers (tank cars, isotainers, large storage containers, etc.)	-	
Portable containers (cylinders, bags, etc.). Calculate the number of containers, multiply by the amount, and sum the results.	-	
Quantities in laboratories unless the laboratory is supervised by a technically qualified individual <sup>2</sup>	-	
Other _____	-	
<b>Area of Highest Quantity</b> (aggregate quantity)	16,000 pounds (16,000 reported)	7.4 miles

The following can be determined from the AHQ calculations:

- Chemical A: AHQ is equal to TOQ because the quantity of chlorine in the laboratory is not counted.
- Chemical B: AHQ encompasses only the location with the greater amount because the two locations are not located within the same 170-foot circle. See

the next example for an AHQ calculation for flammable COI located close together.

- Chemical C: AHQ is equal to the TOQ because this material is only found in one location at the facility.

## Example: Worksheet for Release-Flammable and Release-Explosive COI that are located in same AHQ

The difference between the calculation of AHQ for toxics and flammables/explosives is that for toxics the AHQ is reported individually for each COI, whereas for flammables and explosives the total quantity of all listed flammables/explosives (within the circle with a 170-foot radius) needs to be reported as an aggregate amount.

To illustrate the determination of the AHQ for release-flammables and release-explosives COI, a facility with three COI release-flammables is used for illustration:

- COI Propane: Stored in a single location at the facility with a TOQ of 70,000 pounds;
- Butane: Located in a common flammable storage area as well as other locations at a facility with a TOQ of 70,000 pounds; and
- Pentane: Used in a production process with a TOQ of 20,000.

To determine the AHQ for flammable or explosive, the following steps are performed:

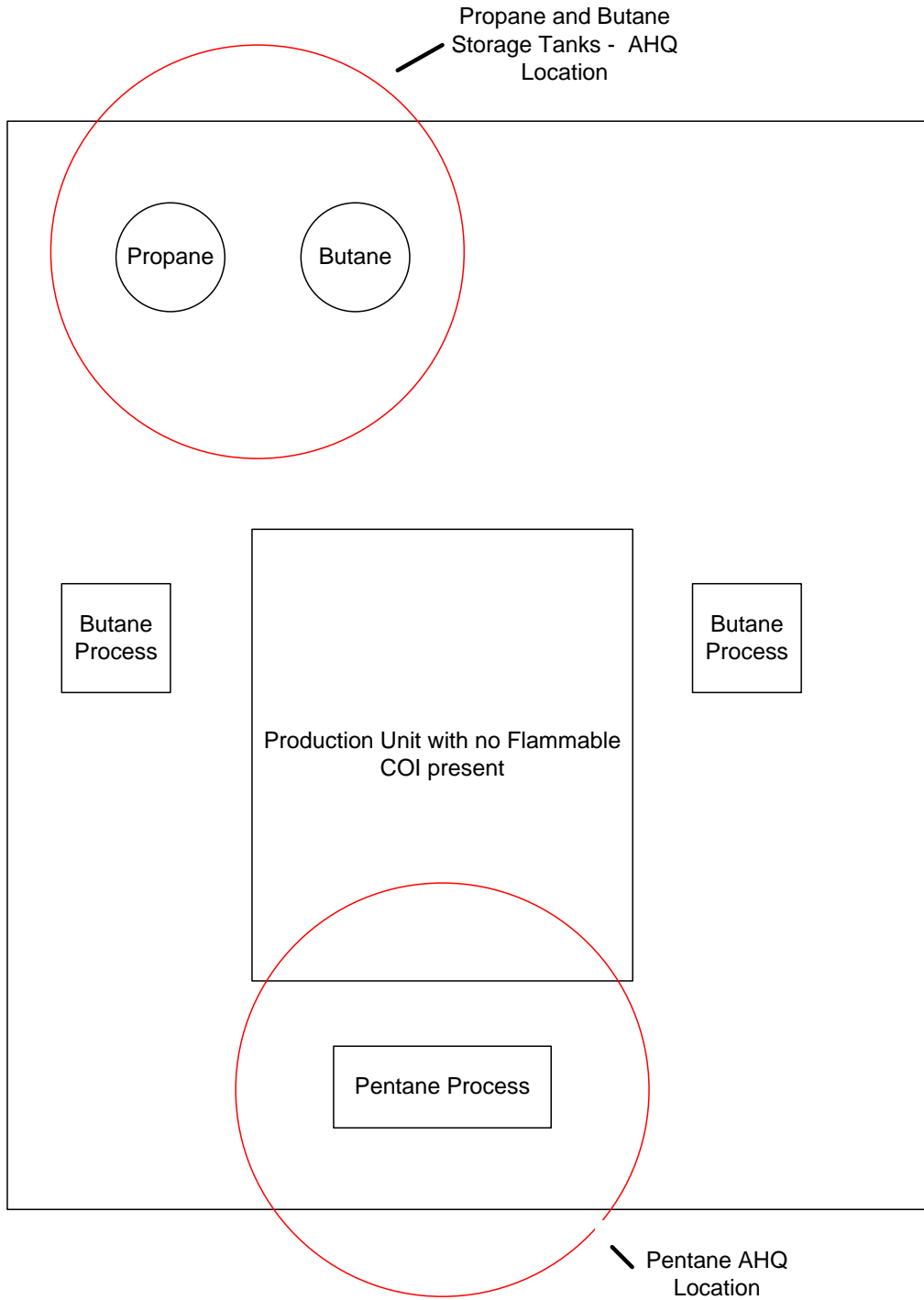
- Step 1: Overlay a circle with a radius of 170 feet on a plot plan of the facility.
- Step 2: Move the circle over or near each location where the COI is located.
- Step 3: For each location, determine the total quantity of listed flammable or explosive within the circle.
- Step 4: Report an AHQ for each flammable or explosive COI that corresponds to the highest quantity determined at each location in Step 3.

For the flammables in the example below, the AHQ is determined by overlaying the 170-foot circle at or near the flammable COI locations at the facility (see Figure A.3). When the circle is moved over the facility, the following is determined:

- Mixed flammable storage: Overlaying the circle with COI propane and butane storage tanks will encompass two tanks (70,000 pounds of COI propane and 50,000 pounds of butane). At this location the AHQ of flammables is 120,000 pounds.
- Process area butane: There are two separate areas of 10,000 pound butane. Overlaying the 170-foot radius at or near these locations results in only 10,000 pounds of butane.
- Production unit with pentane: Overlaying the circle at the production unit encompasses only the 20,000 pounds of COI propane associated with the unit.

For the listed chemicals, the following AHQ would be reported in the Top-Screen:

- COI Propane: 120,000 pounds (mixed flammable storage area)
- Butane: 120,000 pounds (mixed flammable storage area)
- Pentane: 20,000 pounds (production unit)



**Figure A.3: Example Facility for Calculating AHQ (Flammables)**

**TOQ Worksheet**

Chemical Name:	Amount	Distance of Concern (miles)
Processing units (tanks and vessels)		
Storage (bulk storage tanks, vessels, underground caverns, etc.)		
Tanks		
Railcars regularly on or adjacent to facility (Even if the railcar is not always present, include the estimated maximum amount at any one time that has been staged in railcars at the facility within the past 60 days.)		
Tube trailers parked at the facility (the estimated maximum amount that has been at the facility within the past 60 days)		
Other bulk transportation containers (tank cars, isotainers, large storage containers, etc.)		
Portable containers (cylinders, bags, etc.). Calculate the number of containers, multiply by the amount, and sum the results.		
Quantities in laboratories, unless the laboratory is supervised by a technically qualified individual <sup>2</sup>		
Other _____		
<b>Total On-site Quantity</b> (aggregate quantity)		

**AHQ Worksheet**

Chemical Name:	Amount	Distance of Concern (miles)
<b>AHQ Location:</b>		
Processing units (tanks and vessels)		
Storage (bulk storage tanks, vessels, underground caverns, etc.)		
Tanks		
Railcars regularly on or adjacent to facility (Even if the railcar is not always present, include the estimated maximum amount at any one time that has been staged in railcars at the facility within the past 60 days.)		
Tube trailers parked at the facility (the estimated maximum amount that has been at the facility within the past 60 days)		
Other bulk transportation containers (tank cars, isotainers, large storage containers, etc.)		
Portable containers (cylinders, bags, etc.). Calculate the number of containers, multiply by the amount and sum the results.		
Quantities in laboratories, unless the laboratory is supervised by a technically qualified individual <sup>2</sup>		
Other _____		
<b>Area of Highest Quantity</b> (aggregate quantity)		



## Attachment B: Sample Facility Letter (Not High-Risk)

---

Date

[Submitter Name]

[Company XYZ]

DHS Chemical Security Identification Number [INSERT Unique ID #]

[Address]

[State]

From:

Office of Infrastructure Protection/Chemical Security Compliance Division

Mail Stop 8100

Department of Homeland Security

Washington, DC 20528-8100

RE: Determination of status of [facility name from screen] [unique facility ID] under Chemical Facility Anti-Terrorism Standards

Dear [Submitter Name]:

Section 550 of Public Law 109-295 directs the Department of Homeland Security (DHS) to regulate security at chemical facilities determined to present high levels of security risk.

Based on the data submitted on [date of submission] by [name of submitter] to DHS through the Chemical Security Assessment Tool (CSAT) Top-Screen, the [name of facility from screen] has been determined not to present a high level of security risk. If there is a material change in the type of activities you undertake at this facility, this determination may change and you are required to notify DHS within 60 days of making such a change. Such notification should be sent to [insert contact information].

Thank you for your time and effort in completing the screening process. If you have any questions about the results of the CSAT Top-Screen please contact [insert contact information].

Sincerely,

## Attachment C: Sample Facility Letter (Preliminary Tier Determination)

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Date

[Submitter Name]

[Company XYZ]

DHS Chemical Security Identification Number [INSERT Unique ID #]

[Address]

[State]

From:

Office of Infrastructure Protection/Chemical Security Compliance Division

Mail Stop 8100

Department of Homeland Security

Washington, DC 20528-8100

RE: Determination of preliminary tiering for [facility name from screen] [unique facility ID]

Dear [Submitter Name]:

Section 550 of Public Law 109-295 directs the Department of Homeland Security (DHS) to regulate security at chemical facilities determined to present high levels of security risk. Chemical facilities so identified are required to conduct a Security Vulnerability Assessment (SVA) and develop a Site Security Plan (SSP) to be reviewed and approved by DHS. The facility may implement layered security measures that meet the applicable Risk Based Performance Standards (RBPSs).

Based on the data submitted on [date of submission] by [name of submitter] to DHS through the Chemical Security Assessment Tool (CSAT) Top-Screen, the [name of facility from screen] has been determined to present a high level of security risk and placed preliminarily in Tier [insert tier level].

**INSERT IF TIER 1, 2, OR 3:** As a preliminary Tier [1, 2, 3] facility, you must conduct the Security Vulnerability Assessment using the CSAT SVA Survey Application available at <http://www.dhs.gov/chemicalsecurity>.

**INSERT IF TIER 4:** As a preliminary Tier 4 facility, DHS requests that you conduct a Security Vulnerability Assessment using the CSAT SVA Survey Application available at <http://www.dhs.gov/chemicalsecurity>. You may, however, submit an Alternative Security Program for consideration.

The SVA for [name of facility] must include assets associated with the chemicals and security issues specified below:

- Release of the following:
  - [Chemical<sub>A</sub>]
  - [Chemical<sub>B</sub>]
  - [Chemical<sub>C</sub>]
- Theft or diversion of the following:
  - [Chemical<sub>A</sub>]
  - [Chemical<sub>B</sub>]
  - [Chemical<sub>C</sub>]
- Sabotage or contamination of the following:
  - [Chemical<sub>A</sub>]
  - [Chemical<sub>B</sub>]
  - [Chemical<sub>C</sub>]
- Production of the following:
  - [Chemical<sub>A</sub>]
  - [Chemical<sub>B</sub>]
  - [Chemical<sub>C</sub>]

The completed CSAT SVA should be submitted to DHS by [insert tier specific date]. DHS will review the submitted SVA and notify the facility in writing of the final Tier determination. Following receipt of the final Tier Determination, the facility may be requested to prepare and submit a Site Security Plan (SSP) in accordance with the requirements of [add regulatory citation].

If you have any questions about the results of the CSAT Top-Screen or the SVA requirements please contact [insert contact information].

Sincerely,

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