



THE OHIO STATE UNIVERSITY

## **The Ohio State University**

### **Chemical Facility Anti-Terrorism Standards (CFATS) Program**

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## 1.0 Introduction

- 1.1 The U.S. Department of Homeland Security (DHS) Chemical Facility Anti-Terrorism Standards (CFATS) are comprehensive risk-based security regulations intended to prevent the intentional misuse of certain chemicals by sabotage, theft, diversion or direct attack. DHS has authority to inspect facilities to enforce compliance with CFATS. DHS can impose civil penalties up to \$25,000 per day and shut down facilities that fail to comply with the regulations.
  - 1.1.1 CFATS requires a facility to submit a report, which is known as a Top-Screen, to DHS after coming into possession of a Chemical of Interest (COI) at or above the Screening Threshold Quantity (STQ). The facility has 60 days to complete and submit the Top-Screen via a secure web portal known using the Chemical Security Assessment Tool (CSAT).
  - 1.1.2 Using the Top-Screen, DHS makes a preliminary determination of whether a facility presents a high level of security risk. Following the Department's review of a facility's Top-Screen submission, the facility may be notified in writing that it is required to complete and submit a CSAT Security Vulnerability Assessment (SVA). A facility that receives such a letter is initially considered high-risk and preliminarily assigned to Tier 1, 2, 3, or 4. Unless specifically notified by the Department, the SVA must be submitted within 90 days from the date of written notification.
  - 1.1.3 If DHS determines that a facility presents a high level of security risk during the final threat analysis, high-risk facilities have 120 days from the time of written notification to complete and submit a CSAT Site Security Plan (SSP) or a DHS-approved Alternative Security Program (ASP).
- 1.2 Purpose: The purpose of this program is to outline the requirements to facilitate the University's compliance with CFATS. This program is developed in accordance with the following DHS regulations:
  - 6 CFR Part 27, "Appendix to Chemical Facility Anti-Terrorism Standards; Final Rule"
  - Public Law 113-254—Dec. 18, 2014, "Protecting and Securing Chemical Facilities From Terrorist Act of 2014"
- 1.3 Scope: This program is applicable to all Ohio State University faculty, staff, students and contract employees, who order, stock, ship, manufacture or use any of the over 300 chemicals listed in Appendix A to Part 27, DHS Chemicals of Interest (COI).

## 2.0 Responsibilities

- 2.1 The Office of Environmental Health and Safety (EHS)
  - 2.1.1 EHS is responsible for the oversight of the CFATS program and for ensuring the University's overall compliance with CFATS.
  - 2.1.2 Ensure the CFATS Program is reviewed, maintained and updated.
  - 2.1.3 Maintain the University's electronic chemical inventory in the EHS Assistant Web Based Chemical Inventory System (EHS Assist).

- 2.1.4 Maintain an active list of facilities, departments and colleges possessing COI.
- 2.1.5 Provide training and program implementation assistance to all departments within OSU.
- 2.1.6 Maintain the Chemical-Terrorism Vulnerability Information (CVI) Authorized User list and CVI Tracking Log.
- 2.1.7 Ensure that all DHS reporting deadlines are met.
- 2.1.8 If required, EHS will work with a high risk facility to develop and implement an appropriate SSP or ASP based upon DHS's Risk-Based Performance Standards (RBPS).
- 2.1.9 Run and review monthly chemical security reports from EHS Assist.
- 2.1.10 Review monthly primary chemical vendor purchasing reports and quarterly random vendor purchasing reports.

2.2 OSU Departments (Facilities Operations & Development (FOD); Athletics; OSU Medical Center (OSUMC); Student Life; et al.) possessing COI are responsible for implementing and ensuring the compliance of the CFATS Program within their facilities.

### 2.3 Supervisors/Principle Investigators (PI)

- 2.3.1.1 Provide CFATS training to employees involved with COI as part of their job duties.
- 2.3.1.2 Submit and maintain an up-to-date chemical inventory within EHS Assist. At a minimum, inventories must be submitted annually, however, any changes to COI must be made within 30 days of the receipt of the chemical.
- 2.3.1.3 New OSU faculty and staff should contact EHS at (614) 292-1284 to obtain a username and password to gain access to the EHS Assist chemical inventory system. An instruction manual is available on the EHS Assist login page:  
<https://ehsa.osu.edu/ehsa/ehsawebisapi.dll/0ipmlhu011i8u814c073h1pxd46b/>
- 2.3.1.4 Be aware of what COI are in your possession.
- 2.3.1.5 Ensure that facilities possessing COI are locked and secured when unattended.
- 2.3.1.6 Ensure that strangers or authorized visitors do not have unfettered access to COI.
- 2.3.1.7 Protect and safeguard CVI from inappropriate disclosure. If required, obtain CVI clearance by completing the DHS CVI Authorized User Training:  
<https://www.dhs.gov/cvi-authorized-user-training>
- 2.3.1.8 If determined to be a high risk facility, follow all security procedures as set forth within the facility's SSP or ASP.

### 3.0 Abbreviations and Terms

ACG – A Commercial Grade

APA – A Placarded Amount

ASP – Alternate Security Plan

CAS – Chemical Abstract Service

CFATS – Chemical Facility Anti-Terrorism Standards

CFR – Code of Federal Regulations

COI – Chemical of Interest

Covered Facility – A facility to be determined to be high risk and regulated by CFATS

Covered Person – A covered person is anyone who has a need to know or any person who otherwise receives or gains access to information that they know (or reasonably should know) is CVI. This includes persons who either inadvertently receive or are given access to CVI; or obtain or gain access to CVI under exigent or emergency circumstances.

CUM-100g – Cumulative STQ of 100 grams for designated chemical weapons

CW/CWP – Chemical Weapons/Chemical Weapons Precursor

CWC – Chemical Weapons Convention

CSAT – Chemical Security Assessment Tool

CVI – Chemical-Terrorism Vulnerability Information

DHS – Department of Homeland Security

DOT – Department of Transportation

EHS Assist – EHS Assistant Web Based Chemical Inventory System

EXP – Explosives

Facility Security Coordinator – The individual responsible for ensuring a facility complies with CFATS, including the implementation of security measures as detailed in the facility's Site Security Plan (SSP) or Alternate Security Program (ASP). This individual must control access to restricted COI areas, and may only issue access to individuals who have successfully completed entry requirements for COI access.

IED/IEDP – Improvised Explosive Device/Improvised Explosive Device Precursor

LNG – Liquefied Natural Gas

RBPS – Risk Based Performance Standards

RMP – EPA's Risk Management Program (40 CFR Part 68)

SSP – Site Security Plan

STQ – Screening Threshold Quantity

SVA – Security Vulnerability Assessment

WME – Weapon of Mass Effect

#### **4.0 Chemical-Terrorism Vulnerability Information**

4.1 The following information, whether transmitted verbally, electronically, or in written form, shall constitute CVI:

- Security Vulnerability Assessments under §27.215
- Completed and partially completed Site Security Plans (SSP) §27.225
- Documents relating to the DHS's review and approval of Security Vulnerability Assessments and SSPs, including Letters of Authorization, Letters of Approval, and responses thereto; written notices; and other documents developed pursuant to §§27.240 or 27.245
- Alternative Security Programs under §27.235
- Documents relating to inspection or audits of a facility by DHS under §27.250
- Any records required to be created or retained by a covered facility under §27.255
- Sensitive portions of orders, notices or letters under §27.300
- Information developed pursuant to §§27.200 or 27.205 (such as the CSAT Top-Screen and the determination by the Assistant Secretary that a chemical facility presents a high level of security risk)
- Other information developed for chemical facility security purposes that DHS determines is similar to the information noted above
- Preliminary and final tier determination of a covered facility
- Derivative products developed from other CVI documents

#### **4.2 Covered Person**

- 4.2.1 A covered person is anyone who has a need to know or any person who otherwise receives or gains access to information that they know (or reasonably should know) is CVI. This includes persons who either inadvertently receive or are given access to CVI; or obtain or gain access to CVI under exigent or emergency circumstances.

#### **4.3 Emergency and Exigent Circumstances**

- 4.3.1 Emergency and exigent circumstances are defined by DHS as circumstances that may include the existence of a threat to public health or public safety or other unique circumstances that warrant immediate action to provide access to CVI.

#### 4.4 Need to Know

- 4.4.1 DHS defines a need to know as the determination that a prospective recipient requires access to specific CVI to perform or assist in a lawful or authorized function and has specified that a person has a need to know CVI in each of the following circumstances:
  - 4.4.1.1 When the person requires access to specific CVI to carry out chemical facility security activities approved, accepted, funded recommended, or directed by DHS.
  - 4.4.1.2 When the person needs the information to receive training to carry out chemical facility security activities approved, accepted, funded, recommended, or directed by DHS.
  - 4.4.1.3 When the information is necessary for the person to supervise or otherwise manage individuals carrying out chemical facility security activities approved, accepted, funded, recommended, or directed by DHS.
  - 4.4.1.4 When the person needs the information to provide technical or legal advice to a covered person, who has a need to know the information, regarding chemical facility security requirements of federal law.
  - 4.4.1.5 When DHS determines access is required for administrative enforcement or in judicial proceedings.
  - 4.4.1.6 When a federal employee needs the information for performance of the employee's official duties.
  - 4.4.1.7 When information is needed by a contractor acting in the performance of a contract or grant with DHS.
  - 4.4.1.8 Other persons that DHS has determined have a need to know CVI in a particular circumstance.

#### 4.5 Access to and Disclosure of CVI

- 4.5.1 CVI requirements apply to all covered persons. An individual cannot have access to CVI unless the individual has a need to know CVI and is a CVI Authorized User. Individuals must complete CVI training, which addresses how to protect information submitted to DHS, and to whom and under what circumstances such information may be disclosed. The DHS CVI training is accessible at <https://www.dhs.gov/cvi-authorized-user-training>. After completing CVI Authorized User training, DHS must designate the individual as a CVI Authorized User and issue a certificate. A copy of the DHS CVI Authorized User certificate must be provided to John Sharpe (614-292-1284), who serves as OSU's CVI Point of Contact (POC) for approval before CVI may be released to an individual. Each need to know will be assessed on a case-by-case basis.

- 4.5.2 Records containing CVI are not available for public inspection or copying. All persons in possession of CVI shall take reasonable steps to confirm that any individual seeking access to CVI is an Authorized User and has a need to know. Authorized Users shall not openly display or freely reveal their CVI number.

#### 4.6 Unauthorized CVI Release and Misuse

- 4.6.1 CVI cannot be released to any individual without a need to know, even if the individual has completed CVI Authorized training. Except in exigent circumstances, an individual cannot release information to an individual with a need to know when the individual has not yet completed CVI Authorized training.
- 4.6.2 Persons shall promptly notify the CVI POC (614-292-1284) if they become aware of any of the following: a person without a need to know has requested CVI, CVI has been released to a person without a need to know, a person becomes aware of any suspected or actual misuse of CVI, or suspicious or inappropriate attempts to gain access to CVI. If any of these events occur, personnel shall promptly provide the CVI POC with the following information: date of event; description of the event (e.g., who was involved, what happened, where release of CVI took place); other relevant facts; and any mitigation that has been implemented to respond to minimize the potential impact of the CVI that has been disclosed. When required by CFATS, the CVI POC will report occurrences to DHS (866-323-2957 or [CSAT@dhs.gov](mailto:CSAT@dhs.gov)).
- 4.6.3 Unauthorized disclosure of CVI could result in an administrative compliance order or civil penalties or other enforcement or corrective actions by DHS.

#### 4.7 Disclosures due to Emergency or Exigent Circumstances

- 4.7.1 In the event that the university discloses or provides access to CVI to persons who are not CVI Authorized Users due to an emergency or exigent circumstance; the following information shall be reported as soon as practical (via phone @ 614-292-1284) to the OSU CVI POC: date CVI was shared, who received the CVI, contact information for the recipient, how CVI was provided to the recipient, reason for emergency or exigent access/disclosure, and justification on need to know. As soon as practicable, the CVI POC will report this information to the DHS chemical facility security inspector or the CSAT Help Desk at 866-323-2957. Additionally, the CVI POC will document this information in the CVI Tracking Log.

#### 4.8 Disclosing CVI to State and Local Officials

- 4.8.1 There are times when disclosing CVI to state and local officials may be appropriate, provided they have a need to know and are CVI Authorized Users. The Public Official shall contact the DHS Chemical Inspector via Helpdesk (866-323-2957) or [CSAT@DHS.GOV](mailto:CSAT@DHS.GOV). After DHS determines that a public official is a CVI Authorized User with a need to know specific CVI, DHS will provide the individual with documentation of their determination. The public official shall be referred to the CVI POC to discuss how to share the necessary information in a non-CVI format or how to share the CVI; access to CVI (e.g. on-site review of CVI documents); disclosure of CVI (verbal communication of relevant CVI); redacted CVI document or summary document of key information; and full and complete CVI product in the permanent possession of Public Official. In the event of any disagreement between the facility and the public official regarding the precise CVI to be disclosed or the method of



disclosure, the CVI POC will refer the matter to DHS. While the university is not required to notify DHS of proper disclosures of CVI to a public official, the CVI POC will maintain a CVI Tracking Log.

#### 4.9 Disclosing CVI to State Homeland Security Advisors and Non-DHS Federal Agencies

- 4.9.1 State Homeland Security Advisors (HSAs) shall request CVI about facilities directly from DHS. DHS will provide CVI related to covered facilities to HSAs.
- 4.9.2 Federal agencies will be encouraged to seek CVI directly from DHS, so that DHS can determine whether the individual is an Authorized User and has a need to know. However, in the event that a non-DHS federal agency requests access to CVI, the CVI POC will make the determination whether access will be in accordance with CFATs. If disclosure is warranted, the CVI POC will notify DHS of the disclosure after the fact.

#### 4.10 CVI Handling Procedures

- 4.10.1 All persons shall take reasonable steps to safeguard CVI in their possession.

#### 4.11 Storage of CVI

- 4.11.1 The workspace where CVI is stored typically should have controls to limit access (e.g., keys, key cards, badges, swipe cards) to prevent unauthorized access by members of the public, visitors, or other persons without a need to know. When unattended, materials containing CVI must, at a minimum, be stored in a secure container. Examples of such containers may include a safe, locked file cabinet, locked desk drawer, locked overhead storage compartment such as a systems furniture credenza, or similar locked compartment.
- 4.11.2 IT and AIS systems used to handle, store, or transmit materials containing CVI must have operational and technical controls in place to ensure that only Authorized Users with a need to know can access such materials and to prevent loss or theft of CVI. The CVI POC must pre-approve use of these systems prior to use for handling, storage or transmission of CVI. Computer systems shall provide appropriate marking and warnings (see § 3.2). Computers and other media used to handle, store, or transmit materials containing CVI shall be stored and protected to prevent unauthorized access and disclosure.

#### 4.12 Marking Materials Containing CVI

- 4.12.1 Regardless of form (e.g., written verbal, electronic, or digital), all CVI, including any copies of materials derived from CVI, must be marked so that individuals are aware of its sensitivity and protection requirements. Required markings shall remain with the document permanently.
- 4.12.2 The protective marking is: **Chemical-terrorism Vulnerability Information**
- 4.12.3 The distribution limitation statement is: **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).**

- 4.12.4 For paper copies, the top of all CVI documents must be conspicuously marked with the protective marking. All CVI documents must have the distribution limitation statement on the bottom of the outside of any front and back cover, including a binder cover or folder (if applicable); any title page; and each page of the document. When transmitting CVI, an appropriate cover sheet shall be placed on the front and back of the transmittal letter, report or document to prevent unauthorized or inadvertent disclosure.
- 4.12.5 Non-paper records that contain CVI, including videotape recordings, audio recordings and electronic and magnetic records must be marked with the protective marking and the distribution limitation statement such that the viewer or listener is reasonably likely to see or hear them when obtaining access to the contents.
- 4.12.6 Electronic CVI should have an electronic watermark or banner stating the CVI is being displayed. All electronic storage devices (e.g., external hard drives or thumb drives) that contain CVI shall be marked with the protective marking. The protective marking and distribution limitation statement should also be applied to each side of the disk and the disk sleeve/jacket, on the non-optical side of the CD-ROM and both sides of the CD-ROM case. If the electronic/magnetic text has a soundtrack, audible warnings that describe the protective marking and distribution limitation statement should, if possible be included in the introduction and at the end of the text. If CVI or material containing CVI cannot be marked directly, the cases or containers in which the CVI is stored (e.g., CD cases) should include the protective marking and distribution limitation statement.
- 4.12.7 If the information is presented electronically, this information shall be displayed in a manner obvious to the reader of the information. When CVI is included in a classified product, the CVI Cover Sheet is placed immediately behind the classified Cover Sheet.
- 4.12.8 If any person receives a record or verbal transmission containing CVI that is not marked as required, this person must mark the record in accordance with CFATS; inform the sender that the record must be marked; and for verbal transmissions, make reasonable efforts to memorize the information and inform the speaker that the information warrants CVI protection.

#### 4.13 Transmission of Hard Copies

- 4.13.1 A return receipt or other tracking process shall be used when transmitting CVI using the U.S. Postal Service. Commercial delivery services shall provide a tracking mechanism that documents the departure and receipt of the package containing CVI. CVI shall have an appropriate inner cover or envelope that should be placed in an opaque, unmarked envelope. The CVI cover page may serve as the inner envelope. The outer envelope shall be marked with the complete name and address of the intended recipient, who must be an Authorized User with a need to know. The envelope should include a notation that if the intended recipient is not at the specified address, the package shall not be forwarded to another address and must be returned to the sender. The outer envelope should not identify the contents as CVI.

4.13.2 CVI cannot be transmitted via inter-office mail at the university.

4.14 CVI in Transit

4.14.1 CVI must be safeguarded when in transit or in use at a temporary work location. The following are examples of appropriate safeguards:

- 4.14.1.1.1 Remain under the control of the authorized person at all times;
- 4.14.1.1.2 Be placed in an opaque envelope and sealed; CVI should not be viewed or displayed where people without a need to know may view the information; and
- 4.14.1.1.3 Be locked in the trunk when traveling by car and when the authorized person is away from the vehicle

4.15 Transmittal via Facsimile

4.15.1 CVI may be sent via non-secure fax, although use of a secure fax machine is encouraged. Consistent with 6 CFR §§ 27.400 (d)-(e), when a non-secure fax is used, the sender should:

- 4.15.1.1.1 Confirm that the person receiving the CVI at the other end is an Authorized User with a need to know.
- 4.15.1.1.2 Coordinate with the recipient to ensure the facsimile number of the recipient is current and valid.
- 4.15.1.1.3 Contact the recipient to ensure that the materials faxed will not be left unattended.
- 4.15.1.1.4 Use a cover sheet for the transmitted information that clearly identifies the sender's name, and telephone number and contains a warning that if the message is received by other than the intended recipient, the individual receiving the message should immediately contact the sender for disposition instructions.
- 4.15.1.1.5 Ensure that the CVI is properly marked in accordance with §3.2.

4.16 Transmittal via E-mail

4.16.1 CVI may be transmitted via email, provided that the transmission is consistent with 6 CFR §§ 27.400 (d) – (e). The following are examples of steps that if taken would be consistent with the regulations:

- 4.16.1.1.1 CVI transmitted via email should be protected by encryption or transmitted within secure communications systems. Where this is impractical or unavailable, CVI may be transmitted over non-secured email accounts as a properly marked, encrypted attachment (e.g., PK Zip or WinZip) or as a properly marked, password-protected attachment with the password provided in a separate transmission.

- 4.16.1.1.2 2. Due to inherent vulnerabilities, materials containing CVI should not be sent to personal email account such as Hotmail or Gmail.

#### 4.17 Telephone and Verbal Communications

- 4.17.1 If telephone communications are necessary, CVI should be discussed over a secure telephone unit or secure telephone equipment when available and practical. Due to the risk of interception and monitoring, avoid use of cellular or cordless telephones unless the circumstances are exigent or transmissions are coded. When deemed necessary, the caller must take reasonable steps to ensure that the person to whom they are communicating the CVI is an Authorized User with a need to know.
- 4.17.2 Moreover, when communicating CVI verbally, the individual providing the information should inform the receiving individual that the information is designated as CVI and subject to protection. Any record that may result from such a verbal conversation that contains CVI should be appropriately marked as CVI.

### 5.0 Shipping and Receiving of Chemicals of Interest at or Above Screening Threshold Quantity

- 5.1 Due to the need to provide additional safeguards for the shipment of COI at or above STQ, it is recommended that COI be shipped only when absolutely necessary. COI that fall under a hazardous material classification must be shipped in accordance with 49 CFR Department of Transportation Hazardous Materials Regulations. Requirements include without limitation appropriate training, as well as classifying materials, packaging, labeling, marking, as well as preparing and maintaining copies of shipping papers.
- 5.2 COI at or above STQ must be safeguarded at all times and must never be left unsecured. Authorized COI Users are responsible for safeguarding COI from the time of receipt until the time that the COI is used, disposed of, or shipped to another location.
- 5.3 When shipping or transferring COI at or above STQ to OSU faculty and staff, personnel must ensure that COI are only shipped or transferred to Authorized COI Users. Contact EHS Chemical Security (614-292-1284) to verify that the receiving individual is an Authorized COI User. It is not necessary to verify this information when COI is disposed of as hazardous waste through the EHS hazardous waste program.
- 5.4 Any time a facility receives, ships, disposes or transfers a COI it must update its inventory to reflect the addition or subtraction within 30 days of the action. When transferring COI to another location at the university, inventory must be updated to reflect the new location of the COI. Research laboratories must update inventories using EHS Assistant. Non-research facilities at the university may either use EHS Assistant to maintain an up-to-date chemical inventory or may notify EHS Chemical Security (614-292-1284) of chemical inventory changes.
- 5.5 When shipping or transferring COI at or above STQ to a non-OSU faculty or staff; the shipper is responsible for verifying that recipient intends to use and possess the COI for legitimate business purposes. The shipper should advise the recipient that they may be subject to DHS CFATS requirements.
- 5.6 When receiving a COI shipment, thoroughly inspect the shipment before signing the Delivery Receipt (DR). Do not accept any leaking or damaged shipments.

## 6.0 Reporting and Responding to Suspicious Persons, Activities and Security Incidents

6.1 When an Ohio State University facility possesses COI at or above the STQ and has been determined by DHS to be a high risk chemical facility; facility personnel shall report security incidents, as well as suspicious persons and activities to the Facility Security Coordinator. Suspicious persons are generally not known to facility staff and generally have no means of identification or credentials. A suspicious person or activity may include without limitation a person who does not work at the facility who has no valid reason for being in a COI restricted area, someone asking questions regarding COI, person observed taking photos/ casing the facility, or an employee exhibiting suspicious behavior that is outlined in Table 1. It is important for personnel to maintain a continued awareness of ongoing activities within university facilities that possess COI  $\geq$  STQ.

- 6.1.1 When feasible, facility personnel should challenge a suspicious person and /or activity (e.g., inquire whether an unrecognized individual needs assistance). Personnel shall notify OSUPD at (614) 292-2121 and the Facility Security Coordinator if they observe suspicious persons and/or activities pertaining to COI. In instances where personnel sense there is an imminent threat of harm or danger, they need to dial 911 from a campus phone, (614) 292-2525 from a cell phone or use an emergency call box. Personnel should attempt to secure COI to prevent unauthorized use, theft, or sabotage. OSUPD will investigate reports of security incidents, suspicious persons and/or activities. After investigating the report, OSUPD and/or the Facility Security Coordinator will implement procedures that they deem appropriate for the circumstances. The Facility Security Coordinator shall provide EHS Chemical Security (@ 614-292-1284) with a report of findings of the investigation.
- 6.1.2 Facility personnel are encouraged to report suspicious activities or behaviors displayed by Authorized COI Users to the Facility Security Coordinator. The Facility Security Coordinator should be advised of information concerning personnel with access to COI  $\geq$  STQ, which indicates such access, may be questionable or may not be in the best interest of the institution. Examples of the types of information that should be reported to the Facility Security Coordinator include, without limitation, criminal activities, bizarre or notoriously disgraceful conduct, failure to comply with security policies and procedures, treatment for mental disorders, habitual use of intoxicants, use of illegal controlled substances, delinquent debt or recurring financial difficulties, and reprimands pertaining to an individual's behavior or judgment that raise concern over an individual's trustworthiness or reliability. Examples for potential basis of suspicion are included in Table 1. It is important for personnel to dispel the notion that peer-reporting is "snitching" and recognize that most inappropriate behavior is the temporary result of personal matters, e.g., illness or death of a loved one or a divorce, that can be addressed by leadership in a fair and private manner to mitigate associated risks. The Facility Security Coordinator will promptly investigate the report and will take steps necessary to ensure that the individual does not present a security risk. The Facility Security Coordinator will implement procedures deemed appropriate based upon the circumstances of the situation. The Facility Security Coordinator should report these incidents to EHS Chemical Security. When appropriate, EHS will facilitate the Facility Security Coordinator with consultation of appropriate entities (OSU Public Safety, etc.) to assess reported information and make appropriate determination.
- 6.1.3 Authorized COI users should notify the Facility Security Coordinator if co-workers or other persons ask repeated questions regarding COI, have a interest in COI and don't

work around COI on a regular basis, person(s) observed taking photos or “casing” the facility.

- 6.1.4 The Facility Security Coordinator shall notify EHS of security or cyber security incidents (e.g., attempts to break into the facility, attempts to disrupt or affect the operations of the cyber system, etc.). The Senior Director of EHS will notify DHS of significant security incidents. Examples of significant security incidents include without limitation:
  - 6.1.4.1 A breach or attempted breach of either the facility’s restricted area perimeter or a critical asset’s restricted area perimeter.
  - 6.1.4.2 An attempted or successful bypass of any access control point.
  - 6.1.4.3 An incident nearby or against the facility that requires the facility to implement additional security measures, activate procedures, or respond with intent of stopping an actual threat.
  - 6.1.4.4 An inventory control issue, theft, diversion, or tampering with any chemical of interest or other dangerous chemical.
  - 6.1.4.5 An act of tampering, with malicious intent, to cause undesirable consequences through the act itself.
  - 6.1.4.6 An incident that affects the operations of critical cyber assets, including any IT equipment that is used to provide security for the facility or to manage processes involving chemicals of interest or critical assets of the facility.
- 6.1.5 When challenges of persons or activities, which appear suspicious, reveal a valid reason for an individual to be near a restricted area (e.g., visitors touring campus, students skateboarding in parking lot); facility personnel would not need to notify OSUPD. If facility personnel observe someone performing surveillance on the facility, they need to notify OSUPD and the Facility Security Coordinator. If the Facility Security Coordinator is uncertain or has questions about whether an incident should be reported, the Facility Security Coordinator should notify OSUPD and EHS Chemical Security.

Table 1: Basis for reasonable suspicion may include without limitation:

<p>Work patterns:</p> <ul style="list-style-type: none"> <li>• Inconsistency in quality of work</li> <li>• High/low periods of productivity</li> <li>• Poor judgment/more mistakes than usual and general carelessness</li> <li>• Lapses in concentration</li> <li>• Difficulty in recalling instructions</li> <li>• Difficulty in remembering own mistakes</li> <li>• Using more time to complete work/missing deadlines</li> <li>• Increased difficulty in handling complex situations</li> <li>• Difficulty in sorting out priority items from nonessential ones</li> <li>• Increased personal phone calls</li> <li>• Taking needless risks</li> <li>• Disregard for the safety of others</li> <li>• Higher than average accident rate on the job</li> </ul>	<p>Absenteeism:</p> <ul style="list-style-type: none"> <li>• Acceleration of absenteeism and tardiness, especially Mondays, Fridays, before and after holidays</li> <li>• Frequent unreported absences, later explained as “emergencies”</li> <li>• Unusual or questionable excuses for absences</li> <li>• Unusually high incidence of colds, flu, upset stomach, headaches</li> <li>• Frequent use of unscheduled vacation time</li> <li>• Leaving work area more than necessary (e.g., too frequent trips to water fountain or restroom)</li> <li>• Unexplained disappearance from the job</li> <li>• Frequently requesting to leave work early for various reasons</li> </ul>
<p>Physical signs or conditions:</p> <ul style="list-style-type: none"> <li>• Weariness, exhaustion</li> <li>• Unusual untidiness</li> <li>• Yawning excessively</li> <li>• Blank stare</li> <li>• Slurred speech</li> <li>• Sleepiness (nodding)</li> <li>• Unsteady walk</li> <li>• Sunglasses at work in inappropriate times</li> <li>• Unusual effort to cover arms</li> <li>• Changes in appearance after lunch or a break</li> </ul>	<p>Emotional signs:</p> <ul style="list-style-type: none"> <li>• Appears to be depressed or extremely anxious all the time</li> <li>• Irritable</li> <li>• Suspicious behavior</li> <li>• Complains about others</li> <li>• Emotional unsteadiness (e.g., outbursts or crying)</li> <li>• Mood changes after lunch or a break</li> <li>• Withdrawn or improperly talkative</li> <li>• Argumentative</li> <li>• Has exaggerated sense of self-importance</li> <li>• Displays violent behavior</li> <li>• Avoids talking with supervisor regarding work issues</li> </ul>
<p>Relationships with others on the job:</p> <ul style="list-style-type: none"> <li>• Overreaction to real or imagined criticism</li> <li>• Avoiding and withdrawing from peers</li> <li>• Complaints from fellow employees</li> <li>• Complaints of difficulties at home, such as separation, divorce, and child discipline problems</li> <li>• Persistent job transfer requests</li> <li>• Frequent non-work-related visits by strangers or from employees from other work areas</li> <li>• Refusal to accept authority</li> <li>• Unauthorized meetings with employees in remote work areas</li> </ul>	



## Appendix A: Appendix A to Part 27: DHS Chemicals of Interest

Appendix A to Part 27. -- DHS Chemicals of Interest <sup>1</sup>																	
Chemicals of Interest (COI)	Synonym	Chemical Abstract Service (CAS) #	Release		Theft		Sabotage		Security Issue								
			Minimum Concentration (%)	Screening Threshold Quantities (in pounds)	Minimum Concentration (%)	Screening Threshold Quantities (in pounds unless otherwise noted)	Minimum Concentration (%)	Screening Threshold Quantities	Release -- Toxic	Release -- Flammables	Release -- Explosives	Theft -- CW/CWP	Theft -- WME	Theft -- EXP/IEDP	Sabotage/Contamination		
Acetaldehyde		75-07-0	1.00	10,000				ACG	APA			X					
Acetone cyanohydrin, stabilized		75-86-5															
Acetyl bromide		506-96-7						ACG	APA								X
Acetyl chloride		75-36-5						ACG	APA								X
Acetyl iodide		507-02-8						ACG	APA								X
Acetylene	[Ethyne]	74-86-2	1.00	10,000								X					
Acrolein	[2-Propenal] or Acrylaldehyde	107-02-8	1.00	5,000							X						
Acrylonitrile	[2-Propenenitrile]	107-13-1	1.00	10,000									X				
Acrylyl chloride	[2-Propenoyl chloride]	814-68-6	1.00	10,000										X			
Allyl alcohol	[2-Propen-1-ol]	107-18-6	1.00	15,000								X					
Allylamine	[2-Propen-1-amine]	107-11-9	1.00	10,000									X				
Allyltrichlorosilane, stabilized		107-37-9						ACG	APA								X
Aluminum (powder)		7429-90-5				ACG	100								X		
Aluminum bromide, anhydrous		7727-15-3						ACG	APA								X
Aluminum chloride, anhydrous		7446-70-0							ACG	APA							X
Aluminum phosphide		20859-73-8						ACG	APA								X
Ammonia (anhydrous)		7664-41-7	1.00	10,000					ACG	APA							
Ammonia (conc. 20% or greater)		7664-41-7	20.00	20,000								X					
Ammonium nitrate, [with more than 0.2 percent combustible substances, including any organic substance calculated as carbon, to the exclusion of any other added substance]		6484-52-2	ACG	5,000	ACG	400										X	



Appendix A to Part 27. -- DHS Chemicals of Interest <sup>1</sup>

Chemicals of Interest (COI)	Synonym	Chemical Abstract Service (CAS) #	Release		Theft		Sabotage		Security Issue							
			Minimum Concentration (%)	Screening Threshold Quantities (in pounds)	Minimum Concentration (%)	Screening Threshold Quantities (in pounds unless otherwise noted)	Minimum Concentration (%)	Screening Threshold Quantities	Release - Toxic	Release - Flammables	Release - Explosives	Theft - CW/CWP	Theft - WME	Theft - EXP/EDP	Sabotage/Contamination	
Ammonium nitrate, solid [nitrogen concentration of 23% nitrogen or greater]		6484-52-2			33.00	2000									X	
Ammonium perchlorate		7790-98-9	ACG	5,000	ACG	400									X	
Ammonium picrate		131-74-8	ACG	5,000	ACG	400									X	
Amyltrichlorosilane		107-72-2						ACG	APA							X
Antimony pentafluoride		7783-70-2						ACG	APA							X
Arsenic trichloride	[Arsenous trichloride]	7784-34-1	1.00	15,000	30.00	2.2				X						
Arsine		7784-42-1	1.00	1,000	0.67	15					X			X		
Barium azide		18810-58-7	ACG	5,000	ACG	400									X	
1,4-Bis(2-chloroethylthio)-n-butane		142868-93-7			CUM 100g								X			
Bis(2-chloroethylthio)methane		63869-13-6			CUM 100g							X				
Bis(2-chloroethylthiomethyl)ether		63918-90-1			CUM 100g							X				
1,5-Bis(2-chloroethylthio)-n-pentane		142868-94-8			CUM 100g							X				
1,3-Bis(2-chloroethylthio)-n-propane		63905-10-2			CUM 100g							X				
Boron tribromide		10294-33-4			12.67	45		ACG	APA					X		X
Boron trichloride	[Borane, trichloro]	10294-34-5	1.00	5,000	84.70	45				X				X		
Boron trifluoride	[Borane, trifluoro]	7637-07-2	1.00	5,000	26.87	45				X				X		
Boron trifluoride compound with methyl ether (1:1)	[Boron, trifluoro [oxybis (methane)], T-4-]	353-42-4	1.00	15,000						X						
Bromine		7726-95-6	1.00	10,000										X		
Bromine chloride		13863-41-7			9.67	45								X		
Bromine pentafluoride		7789-30-2						ACG	APA							X
Bromine trifluoride		7787-71-5			6.00	45		ACG	APA					X		X
Bromotrifluoroethylene	[Ethene, bromotrifluoro-]	598-73-2	1.00	10,000											X	

Appendix A to Part 27. -- DHS Chemicals of Interest <sup>1</sup>

Chemicals of Interest (COI)	Synonym	Chemical Abstract Service (CAS) #	Release			Theft		Sabotage		Security Issue					
			Minimum Concentration (%)	Screening Threshold Quantities (in pounds)	Minimum Concentration (%)	Screening Threshold Quantities (in pounds unless otherwise noted)	Minimum Concentration (%)	Screening Threshold Quantities	Release - Toxic	Release - Flammables	Release - Explosives	Theft - CW/CWP	Theft - WME	Theft - EXP/MDP	Sabotage/Contamination
1,3-Butadiene		106-99-0	1.00	10,000						X					
Butane		106-97-8	1.00	10,000						X					
Butene		25167-67-3	1.00	10,000						X					
1-Butene		106-98-9	1.00	10,000						X					
2-Butene		107-01-7	1.00	10,000						X					
2-Butene-cis		590-18-1	1.00	10,000						X					
2-Butene-trans		624-64-6	1.00	10,000						X					
Butylchlorosilane	[2-Butene, (E)]	7521-90-4						ACG APA							X
Calcium hydrosulfite	[Calcium dithionite]	15512-36-4						ACG APA							X
Calcium phosphide		1305-99-3						ACG APA							X
Carbon disulfide		75-15-0	1.00	20,000					X						
Carbon oxysulfide	[Carbon oxide sulfide (COS); carbonyl sulfide]	463-58-1	1.00	10,000											
Carbonyl fluoride		353-50-4				12.00	45					X			
Carbonyl sulfide		463-58-1				56.67	500					X			
Chlorine		7782-50-5	1.00	2,500	1.00	9.77	500		X			X			
Chlorine dioxide	[Chlorine oxide, (ClO <sub>2</sub> )]	10049-04-4	1.00	1,000				ACG APA	X						X
Chlorine monoxide	[Chlorine oxide]	7791-21-1	1.00	10,000						X					
Chlorine pentafluoride		13637-63-3				4.07	15					X			
Chlorine trifluoride		7790-91-2				9.97	45					X			
Chloroacetyl chloride		79-04-9						ACG APA							X
2-Chloroethylchloro- methylsulfide		2625-78-5				CUM 100g					X				
Chloroform	[Methane, trichloro-]	67-66-3	1.00	20,000					X						
Chloromethyl ether	[Methane, oxybis(chloro-)]	542-88-1	1.00	1,000					X						
Chloromethyl methyl ether	[Methane, chloromethoxy-]	107-30-2	1.00	5,000					X						
1-Chloropropylene	[1-Propene, 1-chloro-]	590-21-6	1.00	10,000						X					
2-Chloropropylene	[1-Propene, 2-chloro-]	557-88-2	1.00	10,000						X					

Appendix A to Part 27. -- DHS Chemicals of Interest <sup>1</sup>

Chemicals of Interest (COI)	Synonym	Chemical Abstract Service (CAS) #	Release			Theft		Sabotage		Security Issue					
			Minimum Concentration (%)	Screening Threshold Quantities (in pounds)	Minimum Concentration (%)	Screening Threshold Quantities (in pounds unless otherwise noted)	Minimum Concentration (%)	Screening Threshold Quantities	Release - Toxic	Release - Flammables	Release - Explosives	Theft - CW/CWP	Theft - WME	Theft - EXP/MDP	Sabotage/Contamination
Chlorosarin	[o-Isopropyl methylphosphonochloridate]	1445-76-7				CUM 100g						X			
Chlorosoman	[o-Pinacetyl methylphosphonochloridate]	7040-57-5				CUM 100g						X			
Chlorosulfonic acid		7780-94-5													X
Chromium oxychloride		14977-61-8						ACG APA							X
Crotonaldehyde	[2-Butenal]	4170-30-3	1.00	10,000						X					
Crotonaldehyde, (E)-	[2-Butenal], (E)-	123-73-9	1.00	10,000						X					
Cyanogen	[Ethanedinitrile]	460-19-5	1.00	10,000	11.67	45				X			X		
Cyanogen chloride		506-77-4	1.00	10,000	2.67	15				X			X		
Cyclohexylamine	[Cyclohexanamine]	108-91-8	1.00	15,000						X					
Cyclohexyltrichlorosilane		98-12-4						ACG APA							X
Cyclopropane		75-19-4	1.00	10,000						X					
DF		676-99-3				CUM 100g						X			
Diazodinitrophenol	Methyl phosphonyl difluoride	87-31-0	ACG	5,000	ACG	400					X			X	
Diborane		19287-45-7	1.00	2,500	2.67	15				X			X		
Dichlorosilane	[Silane, dichloro-]	4109-96-0	1.00	10,000	10.47	45				X			X		
N,N-(2- diethylamino)ethanethiol		100-38-9			30.00	2.2						X			
Diethylchlorosilane		1719-53-5													X
o,o-Diethyl S-[2- (diethylamino)ethyl] phosphorothiolate		78-53-5				30.00	2.2					X			
Diethyleneglycol dinitrate		693-21-0	ACG	5,000	ACG	400					X			X	
Diethyl methylphosphonite		15715-41-0			30.00	2.2						X			
N,N-Diethyl phosphoramidic dichloride		1498-54-0			30.00	2.2						X			
N,N-(2- diisopropylamino)ethanethiol	N,N-diisopropyl-(beta)- aminoethane thiol	5842-07-9			30.00	2.2						X			



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			Minimum Concentration (%)	Screening Threshold Quantities (in pounds)	Minimum Concentration (%)	Screening Threshold Quantities (in pounds unless otherwise noted)	Minimum Concentration (%)	Screening Threshold Quantities	Release – Toxic	Release – Flammables	Release – Explosives	Theft – CW/CWP	Theft – WME	Theft – EXP/IEDP	Sabotage/Contamination	
Ethyl nitrite	[Nitrous acid, ethyl ester]	109-95-5	1.00	10,000								X				
Ethyl phosphonyl difluoride		753-98-0			CUM 100g								X			
Ethylamine	[Ethanamine]	75-04-7	1.00	10,000								X				
Ethyldiethanolamine		139-87-7			80.00	220							X			
Ethylene	[Ethene]	74-85-1	1.00	10,000								X				
Ethylene oxide	[Oxirane]	75-21-8	1.00	10,000								X				
Ethylenediamine	[1,2-Ethanediamine]	107-15-3	1.00	20,000							X					
Ethylenimine	[Aziridine]	151-56-4	1.00	10,000								X				
Ethylphosphonothioic dichloride		993-43-1			30.00	2.2							X			
Ethyltrichlorosilane		115-21-9						ACG	APA							X
Fluorine		7782-41-4	1.00	1,000	6.17	15			X				X			
Fluorosulfonic acid		7789-21-1						ACG	APA							X
Formaldehyde (solution)		50-00-0	1.00	15,000							X					
Furan		110-00-9	1.00	10,000								X				
Germane		7782-65-2			20.73	45								X		
Germanium tetrafluoride		7783-58-6			2.11	15							X			
Guanyl nitrosaminoquanylidene hydrazine			ACG	5,000	ACG	400						X			X	
Hexaethyl tetraphosphate and compressed gas mixtures		757-68-4			33.37	500							X			
Hexafluoroacetone		684-16-2			15.67	45										
Hexanitrostilbene		20062-22-0	ACG	5,000	ACG	400							X		X	
Hexolite	[Hexoto]	121-82-4	ACG	5,000	ACG	400							X		X	
Hexyltrichlorosilane		928-65-4						ACG	APA							X
HMX	[Cyclotetramethylene- tetranitramine]	2691-41-0	ACG	5,000	ACG	400						X			X	





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			Minimum Concentration (%)	Screening Threshold Quantities (in pounds)	Minimum Concentration (%)	Screening Threshold Quantities (in pounds unless otherwise noted)	Minimum Concentration (%)	Screening Threshold Quantities	Release - Toxic	Release - Flammables	Release - Explosives	Theft - CW/CWP	Theft - WME	Theft - EXP/IEDP	Sabotage/Contamination	
Isopropyl chloride	[Propane, 2-chloro-]	75-29-6	1.00	10,000												
Isopropyl chloroformate	[Carbonochloridic acid, 1-methylethyl ester]	108-23-6	1.00	15,000												
Isopropylamine	[2-Propanamine]	75-31-0	1.00	10,000												
Isopropylphosphonothioic dichloride		1498-60-8			30.00	2.2										
Isopropylphosphonyl difluoride		677-42-9				CUM 100g										
Lead azide		13424-46-9	ACG	5,000	ACG	400										
Lead styphnate	[Lead trinitroresorcinate]	15245-44-0	ACG	5,000	ACG	400										
Lewisite 1	[2-Chlorovinylchloroarsine]	541-25-3				CUM 100g										
Lewisite 2	[Bis(2-chlorovinyl)chloroarsine]	40334-69-8				CUM 100g										
Lewisite 3	[Tris(2-chlorovinyl)arsine]	40334-70-1				CUM 100g										
Lithium amide		7782-89-0						ACG APA								X
Lithium nitride		26134-82-3						ACG APA								X
Magnesium (powder)		7439-95-4			ACG	100										X
Magnesium diamide		7803-54-5						ACG APA								X
Magnesium phosphide		12057-74-8						ACG APA								X
MDEA	[Methyldiethanamine]	105-59-9														
Mercury fulminate		628-86-4	ACG	5,000	ACG	400										
Methacrylonitrile	[2-Propenenitrile, 2-methyl-]	126-98-7	1.00	10,000												
Methane		74-82-8	1.00	10,000												
2-Methyl-1-butene		563-46-2	1.00	10,000												
3-Methyl-1-butene		563-45-1	1.00	10,000												
Methyl chloride	[Methane, chloro-]	74-87-3	1.00	10,000												
Methyl chloroformate	[Carbonochloridic acid, methyl ester]	79-22-1	1.00	10,000												
Methyl ether	[Methane, oxybis-]	115-10-6	1.00	10,000												
Methyl formate	[Formic acid Methyl ester]	107-31-3	1.00	10,000												





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Nitrotriazolone		932-64-9	ACG	5,000	ACG	400					X			X		
Nonyltrichlorosilane		5283-67-0						ACG	APA						X	
Octadecyltrichlorosilane		112-04-9						ACG	APA						X	
Octolite		57607-37-1	ACG	5,000	ACG	400					X			X		
Octonal		78413-87-3	ACG	5,000	ACG	400					X			X		
Octyltrichlorosilane		5283-68-9						ACG	APA						X	
Oleum (Fuming Sulfuric acid)	[Sulfuric acid, mixture with sulfur trioxide]	8014-95-7	1.00	10,000					X							
Oxygen difluoride		7783-41-7											X			
1,3-Pentadiene		504-60-9	1.00	10,000	0.09	15				X						
Pentane		109-66-0	1.00	10,000						X						
1- Pentene		109-67-1	1.00	10,000						X						
2-Pentene, (E)-		648-04-8	1.00	10,000						X						
2-Pentene, (Z)-		627-20-3	1.00	10,000						X						
Pentolite		8066-33-9	ACG	5,000	ACG	400					X			X		
Peracetic acid	[Ethaneperoxy acid]	79-21-0	1.00	10,000						X						
Perchloromethylmercaptan	[Methanesulfonyl chloride, trichloro-]	594-42-3	1.00	10,000					X							
Perchloryl fluoride		7616-94-6			25.67	45							X			
PETN	[Pentaerythritol tetranitrate]	78-11-5	ACG	5,000	ACG	400					X			X		
Phenyltrichlorosilane		98-13-5						ACG	APA							X
Phosgene	[Carbonic dichloride] or [carbonyl dichloride]	75-44-5	1.00	500	0.17	15			X				X			
Phosphine		7803-51-2	1.00	10,000	0.67	15				X			X			
Phosphorus		7723-14-0			ACG	400								X		
Phosphorus oxychloride	[Phosphoryl chloride]	10025-87-3	1.00	5,000	80.00	220		ACG	APA	X		X			X	
Phosphorus pentabromide		7789-69-7						ACG	APA						X	
Phosphorus pentachloride		10026-13-8						ACG	APA						X	
Phosphorus pentasulfide		1314-80-3						ACG	APA						X	



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			Minimum Concentration (%)	Screening Threshold Quantities (in pounds)	Minimum Concentration (%)	Screening Threshold Quantities (in pounds unless otherwise noted)	Minimum Concentration (%)	Screening Threshold Quantities	Release – Toxic	Release – Flammables	Release – Explosives	Theft – CW/CWP	Theft – WME	Theft – EXP/IEDP	Sabotage/Contamination	
Sesquimustard	[1,2-Bis(2-chloroethylthio)ethane]	3563-36-8			CUM 100g											
Silane		7803-62-5	1.00	10,000									X			
Silicon tetrachloride		10026-04-7					ACG	APA							X	
Silicon tetrafluoride		7783-61-1			15.00	45									X	
Sodium azide		26628-22-8			ACG	400									X	
Sodium chlorate		7775-09-9			ACG	400									X	
Sodium cyanide		143-33-9					ACG	APA							X	
Sodium hydrosulfite	[Sodium dithionite]	7775-14-8					ACG	APA							X	
Sodium nitrate		7631-99-4			ACG	400									X	
Sodium phosphide		12058-85-4					ACG	APA							X	
Soman	[o-Pinacoyl methylphosphonofluoridate]	96-64-0			CUM 100g						X					
Stibine		7803-52-3			0.67	15								X		
Strontium phosphide		12504-16-4					ACG	APA								X
Sulfur dioxide (anhydrous)		7446-09-5	1.00	5,000	84.00	500			X					X		
Sulfur tetrafluoride	[Sulfur fluoride (SF4), (T-4)]	7783-60-0	1.00	2,500	1.33	15					X			X		
Sulfur trioxide		7446-11-9	1.00	10,000					X					X		
Sulfuryl chloride		7791-25-5					ACG	APA								X
Tabun	[o-Ethyl-N,N- dimethylphosphoramido-cyanidate]	77-81-6			CUM 100g						X					
Tellurium hexafluoride		7783-80-4														
Tetrafluoroethylene		116-14-3	1.00	10,000	0.83	15								X		
Tetramethyllead	[Ethene, tetrafluoro-]												X			
Tetramethylsilane	[Plumbane, tetramethyl-]	75-74-1	1.00	10,000												
Tetranitroaniline	[Silane, tetramethyl-]	75-76-3	1.00	10,000										X		
Tetranitromethane		53014-37-2	ACG	5,000	ACG	400								X		
Tetrazene	[Methane, tetranitro-]	509-14-8	1.00	10,000										X		
	[Guanyl nitrosaminoquanyltetrazene]	109-27-3	ACG	5,000	ACG	400								X		X



Appendix A to Part 27. -- DHS Chemicals of Interest <sup>1</sup>

Chemicals of Interest (COI)	Synonym	Chemical Abstract Service (CAS) #	Release		Theft		Sabotage		Security Issue						
			Minimum Concentration (%)	Screening Threshold Quantities (in pounds)	Minimum Concentration (%)	Screening Threshold Quantities (in pounds unless otherwise noted)	Minimum Concentration (%)	Screening Threshold Quantities	Release – Flammables	Release – Explosives	Theft – CW/CWP	Theft – WME	Theft – EXP/IEDP	Sabotage/Contamination	
Vinyl acetate monomer	[Acetic acid ethenyl ester]	108-05-4	1.00	10,000											
Vinyl acetylene	[1-Buten-3-yne]	689-97-4	1.00	10,000											
Vinyl chloride	[Ethene, chloro-]	75-01-4	1.00	10,000											
Vinyl ethyl ether	[Ethene, ethoxy-]	109-92-2	1.00	10,000											
Vinyl fluoride	[Ethene, fluoro-]	75-02-5	1.00	10,000											
Vinyl methyl ether	[Ethene, methoxy-]	107-25-5	1.00	10,000											
Vinylidene chloride	[Ethene, 1,1-dichloro-]	75-35-4	1.00	10,000											
Vinylidene fluoride	[Ethene, 1,1-difluoro-]	75-38-7	1.00	10,000											
Vinyltrichlorosilane		75-94-5						ACG	APA						X
VX	[o-Ethyl-S-2-diisopropylaminoethyl methyl phosphonothiolate]	50782-69-9			CUM 100g						X				
Zinc hydrosulfite	[Zinc dithionite]	7779-86-4						ACG	APA						X

<sup>1</sup> The acronyms used in this appendix have the following meaning: ACG = A Commercial Grade; APA = A Placarded Amount; CW/CWP = Chemical Weapons/Chemical Weapons Precursors; WME = Weapons of Mass Effect; EXP/IEDP = Explosives/Improvised Explosive Device Precursors