

CHEMICAL SECURITY ANALYSIS CENTER (CSAC)



Location: Aberdeen Proving Ground, MD

Core Competencies: Knowledge Management, Design and Execution of Laboratory and Field Tests, Assessment of the Hazard and Risk of Toxic Chemicals, Safer Design Strategies for Chemical Engineering Processes, and 24/7 S&T-Based Reachback

Accreditations: ISO 9001 Compliant

The Department of Homeland Security (DHS) established the Chemical Security Analysis Center (CSAC) in 2006 to assess and identify vulnerabilities and respond to potential chemical threats and hazards to the homeland. Located on Aberdeen Proving Ground in Maryland, CSAC supports the Homeland Security Enterprise by providing a robust knowledge repository of chemical threat information, extensive subject matter expertise in science-based threat and risk analysis, and a 24/7 science- and technology-based reachback capability. CSAC maintains core competencies to address the following focus areas:

Knowledge Management

- Delivered the Interagency Nontraditional Chemical Agents Virtual Library to the White House's Office of Science and Technology Policy.
- Improved the Chemical Agent Reaction Database.
- Enhanced the CSAC website on the Homeland Secure Data Network.
- Published more than 300 reports since 2006.

Design and Execution of Laboratory and Field Tests

- Developed updated source terms for chlorine and ammonia releases.
- Transitioned results from the Jack Rabbit testing to several training organizations.
- Initiated execution of the Jack Rabbit II series of 5- to 20-ton chlorine release tests.

- Established a Cooperative Research and Development Agreement (CRADA) with the Chlorine Institute for transferring information essential for operations planning and response, garnering two Federal Laboratory Consortium Awards for Technology Transfer.

Assessment of the Hazard and Risk of Toxic Chemicals

- Published the 2012 Chemical Terrorism Risk Assessment (CRTA); transitioned assessment methodologies to the Department of Defense (DOD) and other federal agencies.
- Provided tailored assessments based on client input using the CTRA Desktop Tool.
- Completed hazard and delivered hazard assessments on Food and Drug Administration and U.S. Department of Agriculture food products.
- Prepared and delivered three reports on emerging chemical threats to the Committee on Homeland and National Security.

Safer Design Strategies for Chemical Engineering Processes

- Defined Inherently Safer Technology (IST) in cooperation with the Center for Chemical Process Safety and industry experts.
- In cooperation with industry, developed a set of risk-based metrics to evaluate safety and security measures for various chemical processes and the supply chain.

Support to the Homeland Security Enterprise

- Developed and delivered a process and data to the Federal Emergency Management Agency to support a scenario-based chemical defense strategy.
- Developed and delivered to the DHS Office of Health Affairs a series of medical management guidelines on chemical threat materials.
- Established a joint project with DOD to assess and evaluate emerging threat chemical materials.
- Through the CSAC Reachback, provided responses to more than 500 inquiries from more than 72 organizations.

Contact

Questions? Email csacinfo@st.dhs.gov for more information.

