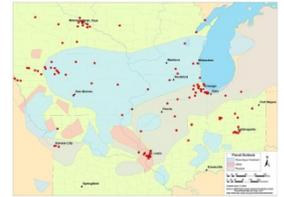


## Center for Infrastructure Security Analysis

### Chemical Security Assessment Tool

In support of chemical security regulation the Chemical Security Assessment Tool (CSAT) is the Department of Homeland Security (DHS) system for collecting and analyzing key data from chemical facilities to:

- Identify facilities presenting a high level of risk
- Support preliminary and final rankings for high-risk facilities
- Assess facility security vulnerabilities
- Evaluate facility security plans to address vulnerabilities and meet risk-based performance standards



### Technical Approach

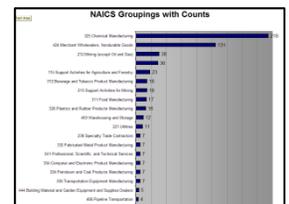
ORNL staff develops and utilizes information technologies to manage, quality assure, analyze, and visualize information related to the nation's chemical facility infrastructure by:

- Collecting and storing data through a series of CSAT surveys accessible via web 2.0 interface
- Performing quality assurance on the data, including cross-validation, geospatial correction, statistical and numerical analysis
- Modeling and ranking facilities based on risk parameters
- Assessing facilities for security vulnerabilities
- Developing facility-specific site security plans
- Developing systems necessary to support and defend the long-term regulatory function



### Benefit

Chemical facility data is collected, assimilated, and analyzed by ORNL to provide the Department of Homeland Security (DHS) with a representation of risk posed by chemical facility operations. This allows the DHS to inventory and systematically secure the Nation's chemical sector by implementing mandatory security requirements and a system for auditing and ensuring compliance with Chemical Facility Anti-Terrorism Standards. ORNL's unique combination of world class facilities, research capabilities, information technology and subject matter expertise makes this possible.



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### Data System Sciences and Engineering Group

