

CHEMICAL SAFETY AND SECURITY

International collaboration to reduce chemical threats.



Sandia National Laboratories is a multi-program laboratory managed and operated by Sandia Corporation, a wholly owned subsidiary of Lockheed Martin Corporation, for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000



Mission

The International Chemical Threat Reduction (ICTR) program enhances United States and international security by reducing chemical threats worldwide. It collaborates with partner governments, national and international chemical organizations, and chemical professionals to raise awareness about chemical security and safety, consistent with national and international guidelines, norms, and requirements.



Goals

Raise chemical threat awareness globally

- Afghanistan | Pakistan | Iraq | Egypt | Jordan | Yemen | Saudi Arabia
- Algeria | Libya | Turkey | India | Malaysia | Indonesia | Philippines



Goals

Foster peaceful collaboration among chemical professionals worldwide

- Engage with government officials, leaders in chemical industry and academia, and other strategic decision-makers
- Create networks of chemical professionals with an interest in propagating chemical safety and security best practices
- Develop partnerships with organizations, programs, and people involved in chemical risk management



Goals

Provide training opportunities and technical assistance to improve chemical safety and security in laboratories

- Improve chemical management practices among academic chemists & engineers, industrial chemists & managers, environmental safety & health professionals, security personnel & law enforcement, and other emergency responders to mitigate the risks of hazardous and dual-use chemicals at all points along the chemical supply chain from manufacturing and distribution to use and disposal as waste
- Ensure sustainability of global chemical risk management by establishing a sustainable chemical security and safety culture globally



Goals

Facilities training and industrial partnerships to improve chemical security best practices in local chemical industries

- Develop procedures for effective regional and international chemical supply chain regulation
- Conduct safety and security assessments of laboratories and facilities where chemicals are stored, used, or transported
- Work with partners to implement sustainable upgrades that enhance chemical safety and security
- Consult on the design of planned chemical facilities or laboratory buildings



Capabilities

Chemical laboratory safety and security management

- Establish chemical management policies and programs
- Develop and install of computer-based chemical inventory management systems
- Train Chemical Safety & Security Officers and support local chemical risk management training and improvement initiatives



Capabilities

Chemical site physical security assessment

- Conduct safety and security assessments of laboratories and facilities where chemicals are stored, used, or transported
- Evaluate safety and security threats to chemical facilities, vulnerabilities, and conduct associated risk analyses



Capabilities

Structured decision analysis tools for understanding chemical threats

- Chemical Risk Management Self-Assessment Model (CHEM-SAM) for small-to-medium-sized facilities
- Global Chemical Threat Prioritization (GCTP) model