



# Indo-US

Workshops on

Strengthening Supply Chain Security in  
the Pharmaceutical and Contract Chemical Synthesis Industries

## 2019



**July 10-11, 2019**

**GFSU, Gandhinagar, Gujarat**

**July 15-16, 2019**

**CSIR-Indian Institute of Chemical Technology, Hyderabad**



**GFSU**



Gujarat Forensic  
Sciences University  
Knowledge | Wisdom | Politeness



Gujarat University  
Ahmedabad



**Pacific Northwest**  
NATIONAL LABORATORY



In association with

**Gujarat University, Ahmedabad**

**CSIR-Indian Institute of Chemical Technology, Hyderabad**

and

**Pacific Northwest National Laboratory (PNNL), Richland, WA, USA**

**U.S. Department of State's Chemical Security Program (CSP), Washington DC, USA**



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Strengthening Supply Chain Security in  
the Pharmaceutical and Contract Chemical Synthesis Industries  
**2019**



Strengthening Supply Chain Security in  
the Pharmaceutical and Contract Chemical Synthesis Industries

## Theme

We are pleased to announce the presentation of Indo-US workshops at two locations ( Gandhinagar - Gujarat and Hyderabad - Telangana, India ) to strengthen chemical security awareness, to improve supply chain security, and enhance customer vetting in pharmaceutical and contract chemical synthesis industries.

Chemical security may be lax with poor security awareness; inadequate regulations; and little appreciation of how to identify, select, and implement risk-based, cost-effective security controls. Around the world, there is an immediate need for the decision makers (senior leaders, facility managers) and security personnel, emergency planning and response personnel to use appropriate tools to deter and mitigate potential security threats against facilities that manufacture, use, or store significant quantities of hazardous or weaponizable chemicals. Specifically, the pharmaceutical sector in the Asian region (e.g. India, Bangladesh, Indonesia, Malaysia etc.) faces substantial security risk from the theft or diversion of weaponizable chemicals. This risk is increasing as the region becomes a major world center for “end-to-end” drug discovery, manufacture, and distribution. The rapid growth in this industry has led to the proliferation of firms up and down the supply chain who routinely synthesize or distribute significant quantities of hazardous or weaponizable chemicals.

This workshop will build chemical security awareness and provide cost-effective techniques for implementing customer vetting and other supply chain security best practices for the pharmaceutical and contract chemical synthesis industries. In particular, the workshops propose to promote awareness and education in technical communities, support the adoption of customer-vetting programs in the chemical sector, and enhance security coordination and communication.

## Who Should Attend?

The target audience for the workshops include personnel from pharmaceutical or speciality chemical firms and their suppliers and distributors. This includes firms that span a broad spectrum of sizes - from large firms to those firms who produce products with quantities in the range of 1 to 100 kg. In particular, the workshops invite attendees who are:

- Industry decision makers and facility managers
- Company safety and security personnel
- Facility emergency planners
- Managing the transportation or distribution of weaponizable chemicals
- Government security officials and law enforcement authorities
- Academicians who train people working in the pharmaceutical and speciality chemical sectors or potential future sector employees

## Workshop Syllabus

**The tentative syllabus for the workshop covers the following topics:**

- Raising security awareness throughout the product lifecycle.
- Identifying security weaknesses in the industry's supply chain management.
- Identifying high-value and cost-effective security controls that can improve security within the supply chain (e.g., security in product and process design, role and responsibility assignments, selection of suppliers and vendors, product procurement, workforce management and security training, inventory management, theft prevention, security monitoring, transportation, product disposal).
- Improving incident response and security event reporting.
- Characterizing potential threats to divert or steal pharmaceutical chemicals, intermediates, and/or end products.
- Understanding potential threats to public safety and security by the use of weaponizable chemicals obtained from the pharmaceutical and contract chemical industry or from the associated supply chain.

**Each workshop will be run as a residential event to encourage intense interactions amongst the participants.**

## Workshop in Ahmedabad, Gujarat



**July 09, 2019**

**19h30 - 21h00** An optional pre-workshop meeting

**July 10, 2019 (Day 1) Workshop from 09h00 - 17h00**

**19h00 - 20h30** An optional pre-dinner interaction session at Gujarat University

**July 11, 2019 (Day 2) - Workshop from 09h00 - 15h00**

## Workshop in Hyderabad, Telangana



**July 14, 2019**

**19h30 - 21h00** An optional pre-workshop meeting

**July 15, 2019 (Day 1) Workshop from 09h00-17h00**

**19h00 - 20h30** An optional pre-dinner interaction session at CSIR-IICT

**July 16, 2019 (Day 2) - Workshop from 09h00-15h00**

## The Workshop Organizers

The U.S. partner at the workshop is Pacific Northwest National Laboratory (PNNL) and their work is sponsored by the U.S. Department of State's Chemical Security Program (CSP). The Indian workshop partners include the CSIR-Indian Institute of Chemical Technology, Gujarat University and GFSU, Gandhinagar, Gujarat. This workshop is a follow-up to the chemical security vulnerability assessment workshops conducted in Hyderabad, Chandigarh and Visakhapatnam in 2018 and Hyderabad in 2016; and the agrochemical security workshops conducted in 2017 in New Delhi, Ahmedabad, and Hyderabad.

## Patrons, Advisory and Organizing Committees

### Patrons

**Dr. Shekar Mande**, Director General, CSIR, New Delhi, India  
**Dr. S. Chandrasekhar**, Director, CSIR-IICT, Hyderabad, India  
**Dr. J. M. Vyas**, Director General, GFSU, Gandhinagar, India  
**Prof. H. A. Pandya**, Vice-Chancellor, Gujarat University, Ahmedabad, India  
**Mr. Jack Dishner**, Chemical Security Program, Department of State, Washington D.C., USA

### Advisory Committee

**Dr. Clifford S. Glantz**, PNNL, Richland, WA, USA  
**Dr. Radha Kishan Motkuri**, PNNL, Richland, WA, USA  
**Dr. P. Radhakrishna**, CSIR-IICT, Hyderabad, India  
**Dr. B. Jagadeesh**, CSIR-IICT, Hyderabad, India

### Organizing Committee

**Dr. V. K. Jain**, Gujrat University (Co-ordinator, Ahmedabad)  
**Prof. S. K. Mehta**, Panjab University, Chandigarh  
**Dr. K. Ravindranath**, Chief Scientist, CSIR-IICT (Co-ordinator, Hyderabad)  
**Dr. S. Prabhakar**, Principal Scientist, CSIR-IICT (Convenor, Hyderabad)  
**Dr. K. Srinivas**, Principal Scientist, CSIR-IICT, Hyderabad  
**Dr. B. V. Subba Reddy**, Chief Scientist, CSIR-IICT, Hyderabad  
**Dr. G. V. M. Sharma**, Chief Scientist (Rtd.), CSIR-IICT, Hyderabad  
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