### December 8, 2016

TIME	EVENT	POC
830 –900	Day One Review	
900 – 1030	Site Tour of PDPU Facilities (TBC) The participants will participate in a guided tour of PDPU facilities, discuss existing security systems, and consider additional low-cost, high-impact upgrades.	
1030 - 1045	Break	
1045 – 1130	Transportation Security and Security of Materials Throughout the Supply Chain This presentation relays the high-level concerns regarding the transport security of chemical materials and identifies elements of a transportation security plan for the secure transport of high consequence. We will also address cradle-to-grave management procurement, stockpile, Inventory, usage, and waste. This will look at the issue from both a facility perspective, as well as at the state and national level.	
1130 – 1230	Transportation Security Tabletop Exercise The participants will examine a simulated chemical transfer, identifying vulnerabilities and offering alternatives to the proposed activity.	
1230 – 1330	Lunch	
1330 – 1430	Insider Threat and Managing the Human Element of Security This session discusses human influences to be considered when securing chemicals, sites and preforming analysis on threats. This is particularly important with institutions with students, visitors and high traffic areas.	
1430 – 1500	India Chemistry Council Participants will be introduced to the mission and goals of Nicer Globe, an Indian Chemistry Council initiative to enable industries to use acclaimed standards, infrastructure, and services for safe and security transportation. We will also introduce the basic principles of Responsible Care, including the Security Code, and discuss applicability in India.	
1500 – 1515	Break	
1515 – 1545	Indian Academic Curriculum Development Participants will hear from a nuclear security professor at Amity University about how she has incorporated security concepts in to her training.	
1545 – 1630	Post-event Questionnaire This activity will allow the participants to see how awareness of chemical security changes perceptions of security.	
1630 – 1700	Day Three Wrap-up, Next Steps Discussion, and Certificates	

### December 9, 2016 – Site Tours

TIME	EVENT
	Meet with Indian POCs
	Tour local chemical industry facility
	The goal of this outreach is to meet with local chemical professionals and to witness first hand industry practices as they relate to security of chemicals of interest at their chemical facility
	Transit to second facility
	Tour local chemical industry facility The goal of this outreach is to meet with local chemical professionals and to witness first hand industry practices as they relate to security of chemicals of interest at their chemical facility.

# **REGISTRATION/LOGISTICS**

For registration, send your CV to

Dr. Manit Shah at manit.shah@tetratech.com Mr. Vipin Shukla at vipin.shukla@pdpu.ac.in

There is no registration fee. Local participants to this workshop will arrange their lodging and travel, while remote participants (80 km or further) will be offered lodging and reimbursement for the travel. Please provide dietary restriction information with your registration.

For more information, please contact manit.shah@tetratech.com

#### **REGISTRATION DEADLINE: NOVEMBER 16, 2016**

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CHEMICAL SECURITY PROGRAM



Organized By







Venue: Off. Koba - Gandhinagar Highway, Raisan, Gandhinagar - 382 007. Gujarat, India.



Pandit Deendayal Petroleum University, in collaboration with the U.S. Department of State Chemical Security Program and Oak Ridge National Laboratory, invites participants from the chemical industry to participate in an Industrial Chemical Security Workshop.

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## **OBJECTIVE OF THE WORKSHOP**

The overall objective of the course is to give an understanding of basic aspects related to chemical security & safety. It will

- Provide an introduction to the scope of hazardous substances and the problems they pose at the places of work.
- Improve the skills of participants in recognizing hazards and preventive safety and security work practices in relation of the production and use of chemicals,
- Improve the skills of information retrieval and convey information to workers, employers and government officials.

### TOPICS TO BE DISCUSSED INCLUDE

- Chemical Safety and Security Fundamentals
- Potential Threats in handling hazardous chemicals
- Vulnerability Assessment Essentials for Chemical Industry
- Systematic Approach to Physical Security System Design for Chemical Security
- Security Basics for chemical transportation and shipping.
- Insider Threat Mitigation to reduce security risks.

### **TARGET AUDIENCE**

- Chemical Industry Managers
- Chemical Laboratory Managers
- Environmental Health, Safety, and Security Personnel
- Researchers/Faculties in Chemical Safety/Security

# ABOUT THE WORKSHOP

The Industrial Chemical Security Workshop on December 6-9, 2016 seeks to improve the safety and security at facilities handling high-risk chemicals. This workshop will provide participants an opportunity to study best practices from a team of experts and identify ways to promote safety and security culture at their facility.

The work is designed to acquaint the participants with the different aspects of managing and promoting chemical security & safety. The research related to the effects of dangerous chemicals and the application of accumulated knowledge in the existing classification systems are presented in the modules. The texts can also give details needed for exercises. The factory visit helps participants to appreciate the complexity of applying safety measures but also that safety promotion can be achieved with simple planning and organization of work practices and places.

### December 6, 2016

TIME	EVENT	POC
830 – 900	Registration and Coffee	
900 – 1000	Introduction and Opening Remarks During this session, CSP, ORNL, and PDPU will provide opening remarks. Participants will also be encouraged to introduce themselves and their perspectives and goals of the following four days.	
1000 - 1030	International Chemical Security Threats and Mitigation Strategies This will be a presentation largely taken from international documentation, highlighting what threats have been focused on the chemical community as well as successful and unsuccessful prevention measures.	
1030 - 1100	Break - Refreshments Served	
1100 – 1145	Pre-Event Questionnaire & Discussion Questions will be tailored to gauge participant's interest and knowledge in specific areas, while providing the speakers an understanding of what topics to emphasize. The facilitators will employ an anonymous data collection tool during this process.	
1145 – 1230	Safety and Security Synergy (Including Hazards)  This session will highlight chemical safety and security overlap and how elements of chemical safety can be used as foundation for implementing chemical security plans/program at an institution.	
1230 - 1330	Lunch	
1330 – 1415	Chemicals of Specific Concern  This session will raise awareness about chemicals of concern to include chemicals likely targeted for theft or diversion, toxic chemicals, and reactive chemicals. It may be tailored based on participant background and facilities.	
1415 – 1500	Potential Threats to Materials of Interest This presentation will identify potential threats to chemical facilities, identify chemicals of concern and their risks, discuss adversary characteristic, and discuss the elements of a terrorist attack.	
1500 - 1515	Break	
1515 – 1600	Graded Approach to Chemicals of Concern This presentation provides an approach to securing numerous chemicals with varying security recommendations assigned to them, within an academic environment.	
1600 – 1645	Chemical Security Culture This overview will cover the evolution of chemical safety and security, and development of a strong chemical security model.	
1645 - 1700	Day One Wrap-up and Discussion	

#### December 7, 2016

TIME	EVENT	POC
830 -900	Day One Review	
900 – 1030	Chemical Hazards and Implementing Systems to Minimize Risks  This presentation focuses on the distinctions between safety and security in terms of awareness of the hazards associated with chemicals. Participants will complete a basic hazards assessment that will illustrate concepts discussed in the session, as well as provide information used in future tabletop exercises.	
1030 - 1045	Break	
1045 – 1130	Chemical Security Site Characterization Overview and Vulnerability Assessment Introduction This session will illustrate the need to analyze sites holistically, while also incorporating physical security enhancements when identified. It will also establish a basic understanding of the vulnerability assessment (VA) process, how VA is relevant to chemical facilities, and introduce the VA process.	
1130 – 1230	Vulnerability Assessment Tabletop Exercise – Small Industrial Facility and University The participants will examine a simulated small chemical industrial facility layout as well as a university layout to determine potential vulnerabilities and hazards.	
1230 - 1330	Lunch	
1330 – 1430	Vulnerability Assessment Tabletop Exercise Participant Presentations The participants will share their observations of identified vulnerabilities.	
1430 – 1530	Physical Protection Systems Definitions and Concepts  This presentation will identify the elements of an effective system, discuss the principles of security, and introduce specific implementation examples.	
1530 – 1545	Break	
1545 – 1645	Physical Protection Table Top Exercise – Small Industrial Facility and University Participants consider low-cost, high-impact upgrades to their facilities. They will then switch groups and identify weaknesses in the systems designed by their peers.	
1645 – 1700	Day Two Wrap-up	