



**COURSE OVERVIEW HE0749**

**API-780: Security Risk Assessment Methodology for the Petroleum & Petrochemical Industries**

**Course Title**

API-780: Security Risk Assessment Methodology for the Petroleum & Petrochemical Industries

**Course Date/Venue**

Session 1: August 11-15, 2024/The Kooh Al Noor Meeting Room, The H Dubai Hotel, Sheikh Zayed Rd - Trade Centre, Dubai, UAE

Session 2: September 08-12, 2024/The Kooh Al Noor Meeting Room, The H Dubai Hotel, Sheikh Zayed Rd - Trade Centre, Dubai, UAE



**Course Reference**

HE0749

**Course Duration/Credits**

Five days/3.0 CEUs/30 PDHs



**Course Description**



***This practical and highly-interactive course includes various practical sessions and exercises. Theory learnt will be applied using our state-of-the-art simulators.***

API developed the security risk assessment (SRA) methodology (API 780 Standard) as a universal approach for assessing security risk at petroleum and petrochemical industries. The information contained herein has been developed in cooperation with government and industry and is intended to help oil and gas companies, petroleum refiners, pipeline operators, petrochemical manufacturers, and other segments of the petroleum industry or other similar industries maintain and strengthen their corporate security through a structured and standardized SRA methodology. This course contains a standard methodology and guidance for use including examples.



This course describes a methodology that can be applied to a broad range of assets and operations beyond the typical operating facilities of the industry. This includes other assets containing hazardous materials such as chemical, refining and petrochemical manufacturing operations, pipelines and transportation operations including truck, marine and rail. It also can be used at a wide variety of non-hydrocarbon types of assets and is applicable as a general purpose SRA methodology. The methodology is suitable for assisting with compliance to regulations, such as the U.S. Department of Homeland Security's Chemical Facility Anti-terrorism Standards, 6 CFR Part 27.



### Course Objectives

Upon the successful completion of this course, each participant will be able to:-

- Get certified as a “*Certified Security Risk Assessor (SRA)*”
- Define the terms, acronyms, abbreviations and symbols of security risk assessment
- Discuss general concepts of SRA covering security risk assessment and security management principles, risk definition for SRA and key variables, likelihood, consequences, threat, attractiveness and vulnerability
- Apply SRA approach including the concept and relationship to security risk management process, conducting and reviewing the SRA, validation and prioritization of risks and risk-based screening
- Employ proper planning in conducting SRA as well as gather, review and integrate information
- Identify the sources of information and the information needs
- Locate, collect and review required information
- Analyze previous incidents and conduct a site inspection
- Gather threat information using the various steps of API SRA
- Recognize forms and worksheets, SRA supporting data requirements and various examples of the SRA process

### Exclusive Smart Training Kit - H-STK®



Participants of this course will receive the exclusive “Haward Smart Training Kit” (H-STK®). The H-STK® consists of a comprehensive set of technical content which includes **electronic version** of the course materials, sample video clips of the instructor’s actual lectures & practical sessions during the course conveniently saved in a **Tablet PC**.

### Who Should Attend

This course provides an overview of all significant aspects and considerations of security risk assessment for those who are involved in physical and cyber security, facility and process design and operations, safety, logistics, emergency response, management and other disciplines as necessary.

### Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking

### Course Fee

**US\$ 5,500** per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.



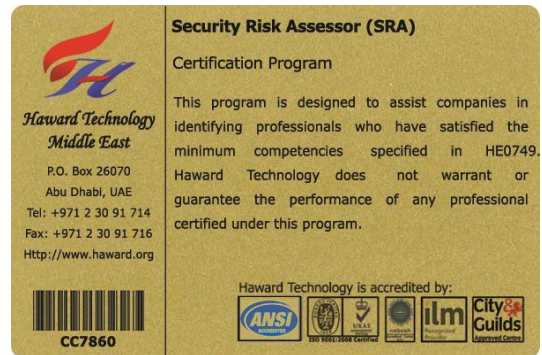


**Course Certificate(s)**

- (1) Internationally recognized Competency Certificates and Plastic Wallet Cards will be issued to participants who completed a minimum of 80% of the total tuition hours and successfully passed the exam at the end of the course. Successful candidate will be certified as a "Certified Security Risk Assessor (SRA)". Certificates are valid for 5 years.

**Sample of Certificates**

The following are samples of the certificates that will be awarded to course participants:-





- (2) Official Transcript of Records will be provided to the successful delegates with the equivalent number of ANSI/IACET accredited Continuing Education Units (CEUs) earned during the course.

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**Haward Technology Middle East**  
Continuing Professional Development (HTME-CPD)

**CEU Official Transcript of Records**

**TOR Issuance Date:** 09-Feb-17  
**HTME No.** PAR11317  
**Participant Name:** Abdullah Al Hajri

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
HE0749	API-780: Security Risk Assessment Methodology for the Petroleum & Petrochemical Industries	February 05-09, 2017	30	3.0

Total No. of CEU's Earned as of TOR Issuance Date **3.0**

**TRUE COPY**

Maricel De Guzman  
Academic Director

Haward Technology has been approved as an Authorized Provider by the International Association for Continuing Education and Training (IACET), 1760 Old Meadow Road, Suite 500, McLean, VA 22102, USA. In obtaining this approval, Haward Technology has demonstrated that it complies with the ANSI/IACET 1-2013 Standard which is widely recognized as the standard of good practice internationally. As a result of their Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for programs that qualify under the ANSI/IACET 1-2013 Standard.


Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking Continuing Education Units (CEUs) in accordance with the rules & regulations of the International Association for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology is accredited by

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### Certificate Accreditations


Certificates are accredited by the following international accreditation organizations: -

- 
The International Accreditors for Continuing Education and Training (IACET - USA)

Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units (CEUs)** in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.

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British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.





### Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:



**Mr. Saad Bedir**, BSc, NEBOSH-IGC, NEBOSH-ENV, is a **Senior Fire, Health, Safety & Environment (HSE) Consultant** with over **35 years** of extensive experience in the **Power, Petrochemical and Oil & Gas** industries. He is a **NEBOSH Approved Instructor** for various certification programs. He is well-versed in the areas of **NEBOSH International General Certificate, NEBOSH Certificate in Environmental Management, Health, Fire, Safety, Security & Environmental Codes of Practice, Legislations and Procedures, Security Operations Management, Security Investigations & Criminal Evidence, Security Risk Assessment, Supervising Security Operation Team, Industrial Security & Asset Protection, Active and Positive Fire Fighting, Fire & Gas Detection Systems, Fire Fighting Systems, Fire Proofing, ESD, Escape Routes, Mobile Crane Operation, Heavy Lifting Equipments, Scaffolding, Rigging Slings, the implementation of OHSAS 18001, ISO 9001, ISO 14001, QHSE Management Planning, Crisis & Business Continuity Management Planning, Emergency Response & Procedures, Industrial Security Risk Assessment & Management, Environmental Impact Assessment (EIA), Behavioural Safety, Occupation Safety, Incident & Accident Investigation, Integrated EHS Aspects, Risk Assessment & Hazard Identification, Environmental Audits, Chemical Handling, Hazardous & Non-Hazardous Waste Management, Confined Space Safety, SHEMS Principles, Process Safety, Basic & Advanced Construction Safety, Mobile Crane Operations, Rig & Barge Inspection, Lifting & Slings, Scaffolding, Air Quality Management, Safety & Occupational Health Awareness, Loss Control, Marine Pollution Hazards & Control, Ground Contamination & Reclamation Processes, Waste Management & Recycling, Clean Energy & Power Saving, FMEA, HAZMAT/HAZCOM, HAZOP, HAZWOPER, HAZID, HSEIA, QRA, Hazardous Area Classification and Radiation Protection. Further, he is also well-versed in **Performance Standards, Statistical Report Writing, Basic Motivation Management, Performance Assessment & Appraisal, Manpower Planning, Managing & Coordinating Training, Strategic Talent Management, Developing Others, Managing Employees Performance, Performance Evaluation and Human Resource Management**. Presently, he is the **HSE Director** for one of the largest and renowned companies in the Middle East, wherein he takes charge of all HSE and security operations of the company.**

Mr. Saad's vast professional experience in directing and managing health, safety and the environment aspects as per **OSHA framework** and guidelines can be traced back to his stint with a few international companies like **Saudi ARAMCO, CONOCO, Kuwait Oil Co. (KOC)**, where he worked as the Field HSE Senior Engineer handling major projects and activities related to the discipline. Through these, Saad gained much experience and knowledge in the implementation and maintenance of international safety standards such as the National Fire Protection Association (**NFPA**), the American Petroleum Institute (**API**), Safety of Life at Sea (**SOLAS**) and Safety for Mobile Offshore Drilling Unit (**MODU**).

Mr. Saad has **NEBOSH** certificate which includes health & safety measures including:

- Fire fighting management system
- Rescue mechanisms (Escaping routes, Rope rescue, and emergency evacuation Plan)
- Machinery Safety requirement
- Occupational health measures & requirement

Mr. Saad has a **Bachelor's** degree in **Chemistry**. Further, he is a **Certified Instructor/Trainer**, an **Approved Tutor** in **NEBOSH International General Certificate**, an **Approved Tutor** in **NEBOSH Certificate in Environmental Management**, a **Certified Lead Auditor** for **OHSAS 18001, ISO 9001, ISO 14001** and a **member** of the **Egyptian Syndicate & Scientific Professions**. His passion for development and acquiring new skills and knowledge has taken him all over the Middle East to attend and share his expertise in numerous trainings and workshops.



**Training Methodology**

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

- 30% Lectures
- 20% Practical Workshops & Work Presentations
- 30% Hands-on Practical Exercises & Case Studies
- 20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

**Course Program**

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

**Day 1**

0730 – 0800	Registration & Coffee
0800 – 0815	Welcome & Introduction
0815 – 0830	<b>PRE-TEST</b>
0830 – 0930	<b>Introduction</b> Scope • Sequential Activities • Normative References • Terms, Definitions, Acronyms, Abbreviations & Symbols
0930 – 0945	Break
0945 – 1100	<b>API-780 SRA Concepts</b> General • Security Risk Assessment & Security Management Principles • Risk Definitions for SRA & Key Variables
1100 – 1230	<b>HCIS New Security, Directives &amp; Process</b>
1230 – 1245	Break
1245 – 1420	<b>API-780 SRA Concepts (cont'd)</b> Likelihood (L) • Consequences (C) • Threat (T) Attractiveness (A) • Vulnerability (V) • Locating Required Information • Information Collection & Review • Concept & Relationship to Security Risk Management Process
1420 – 1430	<b>Recap</b>
1430	Lunch & End of Day One

**Day 2**

0730 – 0930	<b>API-780 SRA Approach (1)</b> Validation & Prioritization of Risks Conducting & Reviewing the SRA
0930 – 0945	Break
0945 – 1100	<b>API-780 SRA Approach (1) (cont'd)</b> Risk-based Screening • Planning for Conducting a SRA • SRA Team • SRA Objectives & Scope • Information Gathering, Review & Integration
1100 – 1230	<b>API-780 SRA Approach (2)</b> Sources of Information • Identifying Information Needs
1230 – 1245	Break
1245 – 1420	<b>API-780 SRA Approach (2) (cont'd)</b> Locating Required Information • Information Collection & Review
1420 – 1430	<b>Recap</b>
1430	Lunch & End of Day Two





**Day 3**

0730 – 0930	<b>API-780 Practical Hands on Real Exercise</b> API-780 SRA Approach Characterization • Threat Assessment • Vulnerability Assessment • Risk Analysis/Ranking • Identify Countermeasures • Summary of Approach
0930 – 0945	Break
0945 – 1100	<b>API-780 Forms &amp; Worksheets</b> Characterization Form • Threat Assessment Form • Attractiveness Form Vulnerability Analysis & Risk Assessment Form • Recommendation Form • Residual Risk Based on Implementation of All Proposed Countermeasures • Countermeasure Risk Score & Priority Form
1100 – 1230	<b>Countermeasure Risk Score &amp; Priority Form</b> Checklist Access Control, Security Force, Intrusion Detection, Perimeter and Building Barriers, etc.
1230 – 1245	Break
1245 – 1420	<b>Information, Computers, Network &amp; Intellectual Property Security</b>
1420 – 1430	<b>Recap</b>
1430	Lunch & End of Day Three

**Day 4**

0730 – 0930	<b>Interdependency &amp; External Infrastructure Checklists</b>
0930 – 0945	Break
0945 – 1100	<b>QRA Quantitative Risk Assessment Worked Real Onsite Case</b>
1100 – 1230	<b>QRA Quantitative Risk Assessment Worked Real Onsite Case (cont'd)</b>
1230 – 1245	Break
1245 – 1420	<b>Using Software to Collect &amp; Update Risk Register</b>
1420 – 1430	<b>Recap</b>
1430	Lunch & End of Day Four

**Day 5**

0730 – 0930	<b>Reviewing Worked Examples Against HCIS Requirements</b>
0930 – 0945	Break
0945 – 1100	<b>Setting the Road Map, Plan for Completing Comprehensive SRA</b>
1100 – 1230	<b>SRA Supporting Data Requirements, Meeting, Interviews, Etc.</b>
1230 – 1245	Break
1245 – 1300	<b>Security Situation Report &amp; Recommendation for Capacity Build Up</b>
1300 – 1315	<b>Course Conclusion</b>
1315 – 1415	<b>COMPETENCY EXAM</b>
1415 – 1430	<b>Presentation of Course Certificates</b>
1430	Lunch & End of Course





### Simulators (Hands-on Practical Sessions)

Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using our state-of-the-art “Visio”, “Mindview” and “QRA System” simulators.

**Visio Software**

**Mindview Software**



The screenshot displays the QRA System Simulator interface for an airplane project. It includes a project tree on the left, a central fault tree diagram, and a 'QRA Results View' window. The results view shows a CDF graph for 'Parameter' and a table of statistics.

STATISTIC	VALUE
Mean	0.3501
1st	0.193
5th	0.2262
10th	0.2544
50th	0.3513
90th	0.4439
95th	0.469
99th	0.5157

**QRA System Simulator**

**Course Coordinator**

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