



COURSE OVERVIEW EE1010-2D CompEx Foundation

Course Title

CompEx Foundation

Course Date/Venue

Session 1: February 16-17, 2025/Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE

Session 2: August 11-12, 2025/Ajman Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE



Course Reference

EE1010-2D



Course Duration/Credits

Two days/1.2 CEUs/12 PDHs

Course Description



This practical and highly-interactive course includes real-life case studies and exercises where participants will be engaged in a series of interactive small groups and class workshops.

The Foundation course is a theoretical look at the intricacies of Explosion Safety for electrically trained personnel working on installing, inspecting and maintaining electrical equipment in explosion-hazardous atmospheres, as well as managers and other staff related to this work.



This course is designed to provide participants with a detailed and up-to-date overview of CompEx Foundation and an overview of Ex marking procedures, including a brief presentation on CE mark and the most common directives with particular emphasis on the ATEX directives. The course presents practical knowledge of explosion principles, zoning practices, equipment markings and protection schemes for both gas and dust environments, as well as discussion on the relationship between NEC, IECEx and ATEX. It covers the explosion danger, LEL, UEL, ignition energy, relative vapour density, flashpoint and ignition-temperature; the reference gasses, ignition sources and the various classification of Ex areas; the categories of equipment, IP classes, methods of protection, and marking of equipment; the standards, legislation and choice of equipment; and the indexing of typical problems the client staff encounters





During this interactive course, participants will learn the Ex 'd', 'e', 'n', 'p', 'i' equipment; the electric installation and earthing; the maintenance and inspection of Ex 'd', 'e' and 'n' and 'i' repairing and overhauling of Ex equipment; the safety procedures, installation and maintenance practices, and the specific tie-ins to the client practices and difficulties.

Upon concluding the course, in order to safely perform their work, electrical electricians are to have knowledge of the laws and regulations as well as their tasks, full knowledge of the protection methods, equipment being used, specific Ex constructions, and need to have the practical means and skill to perform the tasks at hand. Working safely in this regard focuses special attention to securing the installation, performing or overseeing gas measurements, and dealing with work permits. The course candidate is then able to guarantee that the work has been performed in accordance with the requirements that apply to Ex-installations. The Foundation course is meant as a strong basis for later heavier qualifications, and provide a steady baseline of information to the candidate.

Course Objectives

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

- Apply an in-depth knowledge on hazardous area classification of CompEx foundation
- Explain completion of the ATEX/IECEx fundamentals course, the student will have: basic understanding of the Ex schemes, basic understanding of prevention explosions, basic understanding of Ex area classification and general understanding of how each method of protection works.
- Discuss learning techniques: in order to provide the highest quality training experience, this course will consist of the following instructional elements that includes instructor led presentation – the core elements of skill will be presented and demonstrated in a classroom environment and discussion – group discussion to be led by skilled professionals
- Discuss gas explosion danger, LEL, UEL, ignition energy, relative vapour density, flashpoint and ignition-temperature
- Identify reference gasses, ignition sources and the various classification of Ex areas
- Recognize the categories of equipment, IP classes, methods of protection, marking of equipment and the standards, legislation and choice of equipment
- Apply indexing of typical problems the client staff encounters
- Determine Ex 'd', 'e', 'n', 'p', 'i' equipment and apply electric installation and earthing
- Maintain and inspect Ex 'd', 'e', 'n' and 'i'
- Repair and overhaul Ex equipment as well as employ safety procedures, installation and maintenance practices
- Identify specific tie-ins to the client practices and difficulties



Who Should Attend

This course provides an overview of all significant aspects and considerations of hazardous area classification of CompEx foundation for electrotechnical and crafts persons who need to develop and demonstrate their competency in the theory of international regulation, equipment selection, installation, inspection and maintenance of electrical and mechanical equipment and apparatus in explosion-hazardous atmospheres, through an internationally accredited, certificated competency validation scheme. This course is also beneficial for supervisors and engineers. It is not limited to only technical specialists, as managerial staff and operators also benefit greatly from learning about the intricacies of working in explosion hazardous areas.

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 conveniently saved in a **Tablet PC**.

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 Fee

US\$ 2,750 per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Accommodation

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



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. Certificates are valid for 5 years.

Sample of Certificates

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

CompEx

"Competency Validation of personnel who work on equipment for use in explosive atmospheres"

**CERTIFICATE
FOR A
FOUNDATION COURSE OF HAZARDOUS
AWARENESS**

This certificate has been awarded to:

AN Other
Certificate No: XXXXXCF

On successful completion of the Underpinning Knowledge Examination in relation to the following units:

EX F Foundation in Hazardous Awareness	Rev (X)
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(PLEASE NOTE THAT FULL DETAILS OF ALL THE COMPEX UNITS ARE GIVEN OVERLEAF)

M. Jones
Martin Jones
JTLimited | CompEx Operations Manager

JT
LIMITED
Certification Body

Date Awarded: 31st October 2014

Expiry Date: 31st October 2019

This certificate is valid up to five years from the date of the award

To verify this certificate call:
+44 (0)800 XXX XX2XX
or email xxx@compex.org

This certificate remains the property of JTLimited who reserve the right to withdraw this certificate if evidence shows failure to comply with the requirements of the CompEx Scheme.

© JTLXXX RevX5 XX/XX

SAMPLE - NOT FOR ISSUE





- (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: 14-Nov-21

HTME No. 3558-6717-5364-9527

Participant Name: Abdulsatar Al Otaibi

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
EE1010-2D	Hazardous Area Classification (CompEx Foundation)	13 Nov-14 Nov, 2021	12	1.2

Total No. of CEU's Earned as of TOR Issuance Date **1.2**

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), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, 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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* Haward Technology * CEUs * Haward Technology * CEUs * Haward Technology * CEUs * Haward Technology *

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 **1.2 CEUs** (Continuing Education Units) or **12 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. Michael Marrington, Dip, QMS-LA, IMS-LA, IECEx, CompEx, EEHA, is a **Senior Electrical & Instrumentation Specialist** with over **15 years** of experience within the **Oil & Gas, Refinery, Power** and **Utility** industries. His expertise widely covers in the areas of **Hazardous Area Classification, Explosion-Proof Equipment Maintenance, Explosive Atmosphere Inspection, Electrical Installation Inspection, CompEx Installation & Maintenance, Ex Hazardous Areas/Locations, Hazardous Areas Verification Dossiers, IECEx Scheme, CompEx Scheme, EEHA Scheme, ATEX, IECEx 60079, CEC Sec 18/20/22, NEC/API RP 500, NEC/API RP505 (AEx), AS/NZS 60079, AS 4761, HV Installation & Testing, Electrical Heat Tracing, Instrument Tubing, UPS & Switchgear, Permit to Work (PTW), Lock Out & Tag Out (LOTO), Gas Testing, Atmosphere Testing, Inspection Test Plan (ITP), Inspection Test Records (ITR), Quality Verification Document, LPG, LNG, Oil Sands Pipelines, Gas Turbines, Compressors, Gearboxes, Starter Motors, Pumps, Offshore Commissioning QA/QC, Maintenance & Operations, Health & Safety Quality Standards, Safety Management Systems, Quality Management Systems, Confined Spaces, Wellhead Control & Monitoring** and Blowout Preventor (BOP). He is currently the **General Manager of IndEX Middle East** wherein he is responsible for providing hazardous areas training and examination such as IECEx CoPC, CompEX and EEHA to manufacturers, inspection organizations and oil and gas clients.

During his career life, he has gained his practical and field experience through his various significant positions as the the **EEHA & IECEx Subject Matter Expert, EI&C EEHA QA/QC Specialist, Senior QC Instrument Inspector, QC Lead E&I Inspector, E&I EEHA Supervisor, EI&C CSU Coordinator, EI&C QAQC Inspector, Auditor & Coordinator, EI&C Maintenance Technician, EI&C Technician, E&I Technician, E&I Commissioning & Quality, Instrument Commissioning & Completions, E&I QA/QC, Offshore Electrician, Lead Hand, Foreman and Construction & Maintenance Electrician** from various companies such as the Tengizchevroil, Sinostruct, Intertek, Kentz/SNC Lavalin, Horizon Inc LLP, ConocoPhillips and Bechtel just to name a few.

Mr. Marrington has **Diploma's in Electrical Instrumentation Engineering and Quality Auditing**. Further, he is a **Certified Instructor/Trainer, a Certified Canadian Electrician, a Certified IECEx CP TS119.0057, a Certified CompEx Ex01-04 & 14, a Certified IV EEHA, a Certified QMS Lead Auditor (ISO 9001:2015) and a Certified IMS Lead Auditor (ISO 9001, 14001, 18001)**. Moreover, he holds an offshore qualification on FOET+EBS (**BOSIET/HUET**) and **STCW 95+CSTP** and has further delivered numerous trainings, seminars, courses, workshops and conferences internationally.



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 – 0745	<i>Registration & Coffee</i>
0745 – 0800	<i>Welcome & Introduction</i>
0800 – 0815	PRE-TEST
0815 – 0900	<i>Gas Explosion Danger</i>
0900 – 0930	<i>LEL, UEL, Ignition Energy, Relative Vapour Density, Flashpoint, Ignition-Temperature</i>
0930 – 0945	<i>Break</i>
0945 – 1015	<i>Reference Gasses, Ignition Sources</i>
1015 – 1100	<i>Classification of Ex Areas</i>
1100 – 1200	<i>Categories of Equipment, IP Classes & Methods of Protection</i>
1200 – 1215	<i>Break</i>
1215 – 1300	<i>Marking of Equipment</i>
1300 – 1345	<i>Standards, Legislation & Choice of Equipment</i>
1345 – 1420	<i>Indexing of Typical Problems the Client Staff Encounters</i>
1420 – 1430	Recap
1430	<i>Lunch & End of Day One</i>

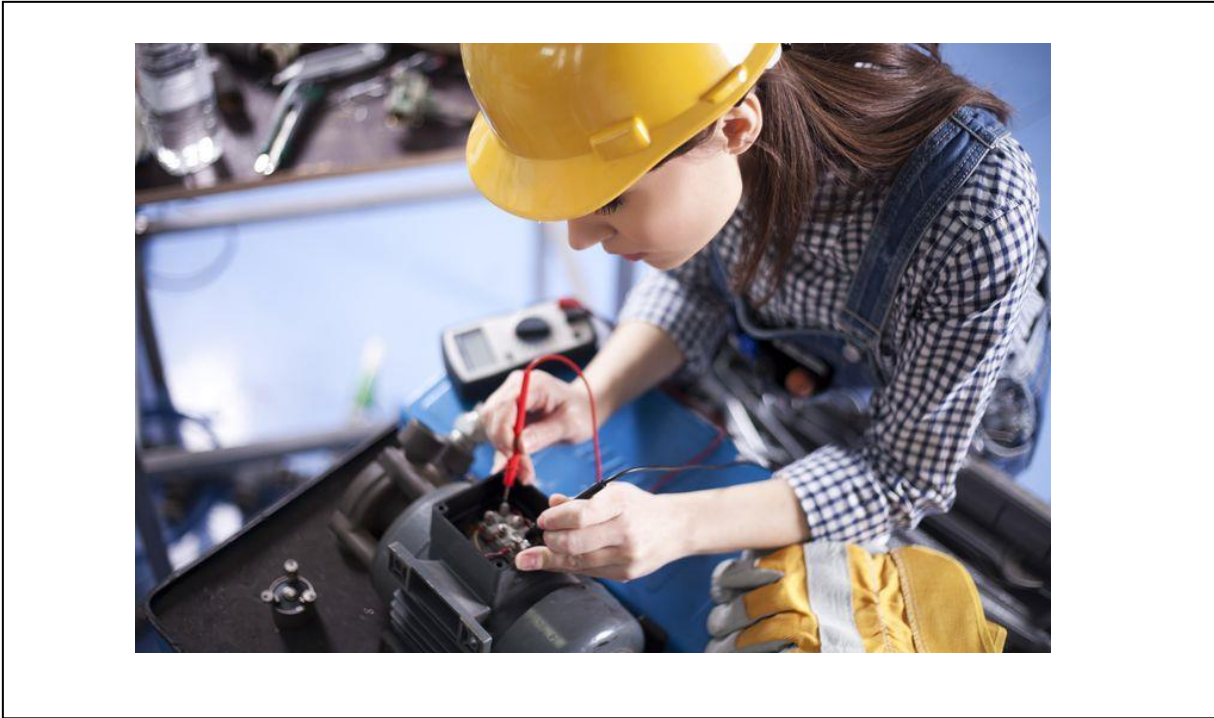
Day 2

0730 – 0800	<i>Ex d, e, n, p, i_ Equipment</i>
0800 – 0830	<i>Electric Installations & Earthing</i>
0830 – 0930	<i>Maintenance & Inspection Ex d, e & n</i>
0930 – 0945	<i>Break</i>
0945 – 1015	<i>Maintenance & Inspection Ex i</i>
1015 – 1045	<i>Repair & Overhaul of Ex Equipment</i>
1045 – 1130	<i>Safety Procedures</i>
1130 – 1200	<i>Installation & Maintenance Practices</i>
1200 – 1215	<i>Break</i>
1215 – 1300	<i>Specific Tie-ins to the Client Practices & Difficulties</i>
1300 – 1400	<i>Theory CompEx Exam (Digital)</i>
1400 – 1415	Course Conclusion
1415 – 1430	<i>Presentation of Course Certificates</i>
1430	<i>Lunch & End of Course</i>



Practical Sessions

This practical and highly-interactive course includes real-life case studies and exercises:-



Course Coordinator

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