



Australian Government

UEEHA0019 Conduct a conformity assessment review of explosion-protected equipment

Release: 1

UEEHA0019 Conduct a conformity assessment review of explosion-protected equipment

Modification History

Release 1. This is the first release of this unit of competency in the Electrotechnology Training Package.

Application

This unit involves the skills and knowledge required to assess for conformity single items of explosion-protected equipment or systems, or packaged explosion-protected equipment that has certification documentation however, not covered under industry certification schemes or AS/NZS Standards.

It includes: examining, comparing and documenting explosion-protection methods and related protection types; evaluating the certification issued for a single item or system, or packages of explosion-protected equipment against certification requirements for another country/region; and writing a conformity assessment document.

This unit applies to personnel involved in engineering functions or maintenance (end users) when considering the selection, installation and maintaining of equipment, packages and systems during a facility life cycle.

Site-specific work permits may be required to work in the hazardous environment. In addition, other permits may be required, such as confined space and to operate specific pieces of equipment such as elevated work platforms in various jurisdictions.

Additional and/or other conditions may apply in some jurisdictions subject to regulations related to electrical work. Practice in the workplace and during training is also subject to work health and safety (WHS)/occupational health and safety (OHS) regulations.

This unit of competency and associated assessment requirements is adopted from clause 2.11 of AS/NZS 4761.1:2018 Competencies for working with electrical equipment for hazardous areas (EEHA). There may be differences between the content of this unit and AS/NZS 4761.1:2018, so the Standard must be checked to ensure compliance with it. Clause 2.11 of AS/NZS 4761.1:2018 also includes the following precondition for assessment:

- “A candidate seeking assessment in this unit shall have been deemed competent to assess electrical/electronic equipment and perform general technical evaluation at AQF level 7 or NZQF level 7 Bachelor Degree (BD) or equivalent.”

Pre-requisite Unit

UEEHA0020 Conduct detailed inspection of electrical installations for hazardous areas

Competency Field

Hazards

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to conduct conformity assessment

2 Conduct conformity assessment

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1 Criteria on which the equipment subject to assessment was certified is determined from the original certification documents
- 1.2 Standards against which conformity is to be assessed are obtained and relevant clauses identified and reviewed
- 1.3 Equipment details are obtained to assess relevance of clauses in standards against which conformity is to be assessed
- 1.4 Understanding of certification processes and the requirements for validation of certification documents and manufacturing quality controls is applied
- 1.5 Safety procedures for site inspections are followed where equipment subject to the conformity assessment is installed in an operating plant
- 2.1 Conformity assessment is carried out in accordance with WHS and other required procedures
- 2.2 Knowledge of explosion-protection standards is applied to a detailed comparison of standards on which the original certification is based with those of another country/region
- 2.3 The documented certification criteria of the equipment are compared to those required for a given country/region, including any compliance tests on which the certification is based

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| | 2.4 | All information in the equipment certification documents, including that relevant to its use are addressed in the conformity assessment, e.g. installation, maintenance, overhaul/repair and conditions of use |
| | 2.5 | Differences between the certification documentation and that for a given country/region are identified and actions needed to address non-compliant safety issues are recorded |
| 3 Document and submit conformity assessment report | 3.1 | Results are documented in a conformity assessment document, informing whether the equipment provides an ‘equivalent level of safety’ to be installed, maintained, overhauled/repared and used safely in a hazardous area |
| | 3.2 | Recommendations for remedial actions, if needed to address non-compliance safety issues, are included in the conformity assessment document |
| | 3.3 | Conformity assessment documentation is forwarded to the appropriate person for inclusion in the hazardous area/explosion-protection compliance records for the site (verification dossier) |

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the Electrotechnology Training Package Companion Volume Implementation Guide.

Unit Mapping Information

This is a new unit.

Links

Companion Volume Implementation Guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>

Assessment Requirements for UEEHA0019 Conduct a conformity assessment review of explosion-protected equipment

Modification History

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least two separate occasions and include:

- preparing to conduct conformity assessment including:
 - determining the criteria by which equipment is to be assessed from its original certification documentation
 - reviewing requirements in the standards against which conformity is to be assessed for certification
 - obtaining equipment details to assess relevance of Clauses in standards against which conformity is to be assessed
 - following safety procedures for inspecting equipment subject to the assessment that is in situ
- conducting conformity assessment including:
 - carrying out assessment in accordance with WHS/OHS and other required procedures
 - comparing certification criteria against those for a given country/region
 - addressing all information in the equipment certification documents including conditions for use
 - identifying the differences between the equipment certification and that required for a given country/region and recording actions needed to address these
- documenting and submitting conformity assessment report including:
 - documenting conformity assessment report including:
 - whether the equipment provides an ‘equivalent level of safety’ to be installed, maintained, overhauled/repaired and used safely in a hazardous area; or
 - recommendations for remedial actions to correct non-compliance issues
 - providing conformity assessment documentation to the appropriate person.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- explosion-protected equipment certification including:

- certification requirements and the applicable standards which may be used for certification of equipment acceptable for use in relevant regions of the world which may:
 - Australia and New Zealand
 - European Union countries
 - USA
 - Canada
 - Asian countries
 - Latin American countries
 - South American countries
 - South Africa
- other aspects of electrical equipment compliance that may affect Ex certification
- common and different aspects of hazardous areas and explosion-protection equipment specified in compliance requirements for different countries/regions including:
 - classification of zones and divisions
 - equipment group and class
 - explosion -protection concepts
 - temperature classifications
 - equipment classification and protection levels
 - enclosure ingress protection/type rating
 - equipment marking
- common and different aspects of hazardous areas installation specified in compliance requirements for different countries/regions including:
 - installation practices
 - inspection and maintenance
 - overhaul, repair and reclamation
 - equipment modification
 - certification processes and requirements for validation of certification documents and manufacturing quality controls.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate tools and testing devices and PPE currently used in industry
- applicable documentation including:
- WHS/OHS policy and procedures for the site
- explosive-protected equipment to be assessed (single items and package explosion-protected equipment)
- equipment certification documents
- Standards to which equipment was certified
- Standards and processes against which equipment certification is to be assessed.

Links

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