

# Assessment Requirements for UEEHA0011 Supervise repair and overhaul of explosion-protected equipment type flameproof (Ex d)

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# **Modification History**

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

### **Performance Evidence**

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

- preparing for repair and overhaul work of equipment, including:
  - following quality assurance system procedures
  - gathering required documentation
- establishing the level of repair and overhaul required, including:
  - following safe work methods
  - examining equipment submitted for repair and overhaul using appropriately maintained measuring devices and instruments
  - documenting the specification for the repair and overhaul
- arranging repair and overhaul work, including:
  - selecting appropriately competent operatives to carry out repair and/or overhaul, including reclamation activities
  - providing operative with the repair and/or overhaul specifications
- verifying that equipment complies with original certification, including:
  - choosing the scope and level of tests and measurements required to verify whether the repaired and/or overhauled equipment complies with original documented requirements
  - arranging for verification of compliance tests and measurements to be carried out
  - reviewing results of verification tests and taking actions to rectify any non-compliance identified by the verification tests and measurements
- documenting repair and overhaul work, including:
  - marking equipment in accordance with standard requirements to show that equipment has been repaired
  - preparing job report of the completed repair and overhaul, including all items specified by standards and submitted to the user
  - updating the repair and overhaul undertaken in the repair facility records, including steps taken to obtain equipment documentation as required by standards.

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## **Knowledge Evidence**

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

- repair and overhaul of explosion-protected equipment (common requirements), including:
  - common requirements for repair and overhaul work of explosive-protected equipment encompassing:
    - equipment with documentation and without documentation
    - · statutory requirements for repair facility and user
    - instructions for the user
    - · instructions for the repair facility
  - identification of repaired equipment by marking encompassing:
    - marking information
    - symbols in accordance with standards requirements
    - other situations
  - requirements for the repair and overhaul of equipment with protection level (EPL) Ga
  - limitations and requirements for the repair and overhaul of equipment with type of protection special 's'
- repair and overhaul of explosive-protected equipment type flameproof 'd', including:
  - examination procedures of Ex 'd' equipment submitted for repair and overhaul encompassing:
    - · identifying key components and relevant physical parameters
    - identify indications of component damage
    - testing and inspection required to establish relevant physical parameters
    - comparison of physical parameters with equipment documentation
  - additional requirements for the repair and overhaul work of equipment with type of protection Ex 'd' encompassing the following:
    - application
    - repair and overhaul requirements
    - reclamation of equipment
    - alterations and modifications of equipment
  - requirements for measurements in Ex 'd' equipment during overhaul, repair and reclamation encompassing:
    - general requirements
    - guidance on tolerances to be achieved at overhaul Groups I, II and III
  - evaluation procedures and parameters encompassing:
    - general requirements
    - Ex 'd' motors
    - Ex 'd' enclosures
    - electrical equipment installed within a Ex 'd' enclosures

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- corrosion or surface indentation tolerance
- repair and overhaul of explosive-protected equipment type non-sparking 'n', including:
  - additional requirements for the repair and overhaul of equipment with type of protection Ex 'n' encompassing:
    - application
    - repair and overhaul requirements
    - reclamation
    - alterations and modifications
  - evaluation procedures and parameters encompassing:
    - general requirements
    - Ex 'n' enclosures
    - electrical equipment installed within Ex 'n' enclosures
- repair and overhaul of explosive-protected equipment type pressurisation 'pD' including:
  - additional requirements for the repair and overhaul of equipment with type of protection Ex 'pD' encompassing:
    - application
    - repair and overhaul requirements
    - reclamation
    - alterations and modifications
- repair and overhaul of explosive-protected equipment type encapsulation 'm', including:
  - requirements for the repair and overhaul of equipment with type of protection Ex 'm' encompassing:
    - application
    - repair and overhaul requirements
    - reclamation
    - alterations and modifications
- repair and overhaul of explosive-protected equipment type oil-filled, 'o', including:
  - requirements for the repair and overhaul of equipment with type of protection Ex 'o' encompassing:
    - application
    - repair and overhaul requirements
    - reclamation
    - alterations and modifications
- repair and overhaul of explosive-protected equipment type powder-filled 'q', including:
  - requirements for the repair and overhaul of equipment with type of protection Ex 'q' encompassing:
    - application
    - repair and overhaul requirements
    - reclamation
    - alterations and modifications.

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### **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 personal protective equipment (PPE) currently used in industry
- · safe work methods
- · a certified quality management system
- documentation and record systems required of a workshop certified to undertake repair and overhaul of explosive-protected equipment
- relevant equipment standards and manufacturer's data
- equipment to be repaired/overhauled.

### Links

Companion Volume implementation guides are found in VETNet -- https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6

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