



Australian Government

UEECD0001 Analyse materials for suitability in electrical equipment

Release: 1

UEECD0001 Analyse materials for suitability in electrical equipment

Modification History

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

Application

This unit involves the skills and knowledge required to analyse materials for suitability in electrical equipment.

It includes preparing and analysing materials. It also includes documenting and reporting analysis.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

UEECD0002 Analyse static and dynamic parameters of electrical equipment

Competency Field

Cross Discipline

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to analyse materials

PERFORMANCE CRITERIA

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

- 1.1** Work health and safety (WHS)/occupational health and safety (OHS) processes and workplace procedures for a given work area are identified, obtained and applied
- 1.2** WHS/OHS risk control measures and workplace procedures in preparation for the work are followed

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| | 1.3 | Machine analysis is determined from performance specifications and/or reports and in consultation with relevant person/s |
| | 1.4 | Activities are planned in accordance with workplace procedures for timelines in consultation with others involved |
| | 1.5 | Strategies are identified, developed and implemented |
| 2 Apply and analyse materials | 2.1 | WHS/OHS risk control work measures and workplace procedures for carrying out the work are followed |
| | 2.2 | Materials are applied to developing machine parts |
| | 2.3 | Characteristics, specifications and performance requirements of the materials are obtained in accordance with workplace procedures |
| | 2.4 | Analysis of materials is carried out in accordance with workplace procedures |
| | 2.5 | Unplanned events are responded to in accordance with WHS/OHS requirements and workplace procedures |
| | 2.6 | Quality of work is monitored in accordance with workplace procedures and/or relevant industry standards |
| 3 Document and report the results of analysis | 3.1 | Solutions to materials analysis are tested and modified as required |
| | 3.2 | Analysis is reported to appropriate person/s to establish action to be taken based on findings |
| | 3.3 | Justification and instruction for actions are documented in work records in accordance with relevant industry standards |

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 UEE Electrotechnology Training Package Companion Volume Implementation Guide.

Analysis must include the following:

- at least two different types of materials

Unit Mapping Information

This unit replaces and is equivalent to UEENEEE163A Analyse materials for suitability in electrical equipment.

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 UEECD0001 Analyse materials for suitability in electrical 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, performance criteria and range of conditions on at least two separate occasions and include:

- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including
 - using risk control measures
- dealing with unplanned events in accordance with problem-solving techniques and workplace procedures
- determining material properties
- documenting and reporting results of the material analysis
- documenting instruction for implementing any actions resulting from the analysis
- documenting justification of actions to be implemented
- forming strategies for analysing machine performance
- obtaining machine characteristics, specifications and performance requirements appropriate to each situation
- preparing to analyse materials
- testing results of the analysis.

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:

- problem-solving techniques
- relevant analysis methods
- relevant implementation strategies
- relevant industry standards
- relevant machine characteristics, specifications and performance requirements
- relevant manufacturer specifications and operating instructions
- relevant materials
- relevant job safety assessments or risk mitigation processes

- relevant WHS/OHS legislated requirements
- relevant workplace documentation
- relevant workplace quality, instructions, policies and procedures.

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 suitable workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated suitable 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 simulations
- relevant and appropriate materials, facilities, tools and equipment currently used in industry
- resources that reflect current industry practices in relation to analysing materials for suitability in equipment
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

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