



Australian Government

Department of Education, Employment and Workplace Relations

PMBPROD237C Splice cables

Revision Number: 1

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Modification History

Not applicable.

Unit Descriptor

Unit descriptor

This competency covers the operation of splicing of power and telecommunications cable. It applies to the cabling sector of the industry.

This competency is typically performed by operators working either independently or as part of a work team.

Application of the Unit

Application of this unit

This competency applies to operators who are required to undertake the splicing of cable in the production process. The key factors are the making of products to meet quality standards and workplace requirements.

It includes:

- monitoring equipment operation and reporting process variations checking product for quality and conformity to specifications
- discarding non-conforming products
- identifying and taking action on routine process problems
- completing logs and reports.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisites

This unit has **no** prerequisites.

Employability Skills Information

Employability Skills

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

ELEMENT	PERFORMANCE CRITERIA
Elements describe the essential outcomes of a unit of competency	Performance Criteria describe the required performance needed to demonstrate achievement of the Element. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT ELEMENT	PERFORMANCE CRITERIA Performance Criteria describe the required performance needed to demonstrate achievement of the Element. Assessment of performance is to be consistent with the Evidence Guide.
1. Identify the materials and process.	1.1 Identify the process and materials to be used. 1.2 Check materials to be used in the splice are compatible with the cable. 1.3 Check allowances for joining overlaps in procedures. 1.4 Identify curing/cooling times for the materials and the process.
2. Plan the joining process.	2.1 Plan the joining process using procedures. 2.2 Identify hazards associated with the job and take appropriate action. 2.3 Plan work sequence noting appropriate curing/cooling times, efficient work sequence and quality requirements.
3. Set up equipment and materials for the process.	3.1 Assemble equipment and consumables. 3.2 Check equipment and site for safety. 3.3 Make adjustments and settings to suit materials and procedures. 3.4 Set up safety screens, engineering controls and personal protective equipment.
4. Complete the joining process to procedures.	4.1 Splice the cable to procedures. 4.2 Check and test the process and the finished product. 4.3 Make adjustments as required to the process to maintain the quality of the finished product. 4.4 Complete workplace documentation and records as required.
5. Respond to routine problems to procedures.	5.1 Recognise known faults that occur during the operation. 5.2 Identify and take action on causes of routine faults. 5.3 Log problems as required. 5.4 Identify non-routine process and quality problems and take appropriate action.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level required for this unit.

Application of knowledge of the materials, equipment and process sufficient to recognise out of specification products, process problems and materials faults.

Knowledge of organisation procedures and relevant regulatory requirements along with the ability to implement them within appropriate time constraints and work standards.

Application of the knowledge of managing risks using the hierarchy of controls applied to the cable splicing process. Application of approved hazard control, safety procedures and the use of PPE in relation to handling materials, equipment operation and clean-up.

Knowledge of and skills in the cable splicing operation and operation of equipment sufficient for consistent production of quality products including:

- nature of the changes in materials arising from the chemical process in forming the joint
- effects of the fumes, heat and other radiations arising from the chemical reactions in joining materials
- effective and efficient use of materials equipment and consumables production workflow
- focus of operation of work systems and equipment
- identification and correct use of equipment, processes and procedures
- planning own work, including predicting consequences and identifying improvements.

Consistent performance should be judged by their ability to:

- establish effective working relationships with colleagues
- modify activities to cater for variations in workplace contexts and environment
- make joints conforming to quality specifications minimise waste
- handle materials suitable for recycling appropriately
- systematically complete work in accordance with safe operating
- procedures to minimise the risk of injury to self or others or damage to goods, equipment or products in production.

Language, literacy and numeracy requirements

This unit requires the ability to read and interpret typical product specifications, job sheets, procedures, material labels and safety information as provided to operators.

Writing is required to the level of completing workplace forms.

Basic numeracy is required, e.g. to determine that two 25 kg bags are needed to make up a requirement for 50 kg.

Evidence Guide

The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, required skills and knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

Overview of assessment

A holistic approach should be taken to the assessment.

Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the Elements, Performance Criteria and skills and knowledge.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

It is essential that competence is demonstrated in the knowledge and skills defined in this unit. These may include the ability to:

- select appropriate materials and joining process
- plan and conduct joining process within workplace quality parameters
- maintain effective work station within appropriate environmental and safety regulations and procedures
- locate, interpret and apply relevant information
- maintain workplace records
- identify and safely handle products and materials
- apply safety precautions appropriate to the task.

Consistent performance should be demonstrated. For example, look to see that:

- cable production standards are met consistently
- upstream and downstream communication is timely
- effective operating procedures and work instructions are read and interpreted correctly
- problems are identified and appropriate action is taken (ie the problem is fixed or reported)
- all safety procedures are followed.

Assessment method and context

It is preferred that assessment takes place on an industrial extruder in a work-like environment.

Competence in this unit may be assessed:

- on a processing plant, allowing for operation under all normal and a range of abnormal conditions
- in a situation allowing for the generation of evidence of the ability to respond to problems
 - by using a suitable simulation and/or a range of case studies/scenarios
 - through a combination of these techniques.

In all cases it is expected that practical assessment will be combined with targeted questioning to assess the underpinning knowledge and theoretical assessment will be combined with appropriate practical/simulation or similar assessment. Assessors need to be aware of any cultural issues that may affect responses to questions.

Assessment processes and techniques must be culturally appropriate and appropriate to the oracy, language and literacy capacity of the assessee and the work being performed.

Specific resources for assessment

This section should be read in conjunction with the Range Statement for this unit of competency. Resources required include suitable access to an operating plant or equipment that allows for appropriate and realistic simulation. A bank of case studies/scenarios and questions will also be required to the extent that they form part of the assessment method. Questioning may take place either in the workplace, or in an adjacent, quiet facility such as an office or lunchroom. No other special resources are required.

Access must be provided to appropriate learning and/or assessment support when required. Where applicable, physical resources should include equipment modified for people with disabilities.

Range Statement

RANGE STATEMENT

The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts. Where reference is made to industry codes of practice, and/or Australian/international standards, the latest version must be used.

Context

This competency applies to the cabling sector.

Procedures

All operations are performed in accordance with procedures.

Procedures include all relevant workplace procedures, work instructions, temporary instructions, manufacturer's instructions, specifications and relevant industry and government codes and standards.

Tools and equipment

This competency includes use of equipment and tools such as hand tools.

Hazards

Typical hazards include:

- spills
- chemical hazards
- fumes/vapours
- slip and fall
- temperature
- hazardous materials
- manual handling hazards
- equipment operations.

Problems

Respond to/rectify 'non-routine problems' means 'apply known solutions to a variety of predictable problems'. Typical process and product problems may include:

- machine malfunction
- variations in materials and/or contamination of materials.

Variables

Key variables to be monitored include:

- cable type
- insulation type
- cable structure
- joint specifications.
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Unit Sector(s)

Not applicable.