



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **TLIB3002A Test equipment and isolate faults**

**Release: 1**

## **TLIB3002A Test equipment and isolate faults**

### **Modification History**

Not Applicable

### **Unit Descriptor**

#### **Unit Descriptor**

This unit involves the skills and knowledge required to test equipment and isolate faults in accordance with workplace requirements, including identifying scope of the operational test; planning operational tests; checking the equipment through full operating range; and isolating faults and/or formulating recommendations for adjustment, repair or replacement in accordance with workplace procedures and relevant regulatory requirements. Licensing, legislative, regulatory or certification requirements are applicable to this unit.

### **Application of the Unit**

#### **Application of the Unit**

Work must be carried out in accordance with codes/regulations and workplace requirements relevant to the testing of equipment and the isolation of faults.

Work is performed under some supervision, generally within a team environment. It involves the application of regulatory requirements and workplace procedures to the testing and the isolation of faults in equipment in the stevedoring, transport, warehousing, distribution and/or storage industries.

### **Licensing/Regulatory Information**

Refer to Unit Descriptor

### **Pre-Requisites**

Not Applicable

## **Employability Skills Information**

**Employability Skills**            This unit contains employability skills.

## **Elements and Performance Criteria Pre-Content**

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	PERFORMANCE CRITERIA
<b>1 Identify scope of operational check</b>	1.1 Physical condition of equipment is observed 1.2 Test procedures and parameters are identified in accordance with workplace procedures and manufacturers specifications 1.3 Preliminary observations are recorded 1.4 Test procedures are discussed with appropriate staff and necessary permission obtained
<b>2 Plan operational checks</b>	2.1 Specifications and notes from preliminary observations are checked and areas to be clarified are identified 2.2 Sequence of tests is planned noting areas where results and observations should be recorded 2.3 Safe area for testing is identified 2.4 Arrangements are made for any additional resources (including staff)
<b>3 Check unit through full operating range</b>	3.1 Test is undertaken observing relevant safety and operational requirements 3.2 Results are recorded and findings confirmed
<b>4 Isolate fault and/or formulate recommendations</b>	4.1 Proposals for equipment repair are recorded based on faults found, cost/time implications and workplace approval systems 4.2 Report is explained to relevant workplace personnel including any options and recommendations 4.3 Parts are procured and/or repairs undertaken in accordance with enterprise procedures

## Required Skills and Knowledge

### REQUIRED KNOWLEDGE AND SKILLS

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

#### Required knowledge:

- Relevant sections of regulatory requirements applicable to the testing of equipment and the isolation of faults
- Relevant OH&S and environmental procedures and regulations
- Workplace procedures and policies for the testing of equipment and the isolation of faults, including the tagging and reporting of faulty equipment and components
- Focus of operation of work systems, equipment, management and site operating systems for the testing of equipment and the isolation of faults

## REQUIRED KNOWLEDGE AND SKILLS

- Fault-finding techniques including identification of cost/time effective rectification procedures
- Tools, meters, gauges and equipment used during the testing of equipment and the isolation of faults and the precautions and procedures that should be followed in their use
- Guidelines relating to the safe use of machinery and equipment including the tagging of unserviceable or damaged items
- Faults that may occur with equipment, and appropriate action that can be taken to report and/or rectify the identified faults in the equipment or its components
- The characteristics, capabilities and limitations of the equipment
- Operational safety requirements for the equipment concerned
- Housekeeping standards procedures required in the workplace
- Site layout and obstacles
- Documentation and record requirements

### Required skills:

- Communicate effectively with others when testing equipment and isolating faults
- Read and comprehend simple statements in English
- Read and interpret instructions, procedures, information and signs relevant to the testing of equipment and the isolation of faults
- Interpret and follow operational instructions and prioritise work
- Complete documentation related to the testing of equipment and the isolation of faults
- Operate electronic communication equipment to required protocol
- Work collaboratively with others when testing equipment and isolating faults
- Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others
- Promptly report and/or rectify any identified problems, faults or malfunctions that may occur when testing equipment and isolating faults in accordance with regulatory requirements and workplace procedures
- Implement contingency plans for unplanned events
- Apply precautions and required action to minimise, control or eliminate hazards that may exist during work activities
- Monitor work activities in terms of planned schedule
- Modify activities depending on differing operational contingencies, risk situations and environments
- Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment
- Adapt to differences in equipment in accordance with standard operating procedures
- Select and use relevant meters, gauges, equipment and tools when testing equipment and isolating faults

**Required skills:**

- Select and use required personal protective equipment conforming to industry and OH&S standards
- Apply basic mechanical, hydraulic, electrical and electronic principles to testing and fault identification activities

**Evidence Guide****EVIDENCE GUIDE**

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills, the range statement and the assessment guidelines for this Training Package.

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

- The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying:
  - the underpinning knowledge and skills
  - relevant legislation and workplace procedures
  - other relevant aspects of the range statement

**Context of and specific resources for assessment**

- Performance is demonstrated consistently over a period of time and in a suitable range of contexts
- Resources for assessment include:
  - a range of relevant exercises, case studies and/or other simulated practical and knowledge assessment, and/or
  - access to an appropriate range of relevant operational situations in the workplace
- In both real and simulated environments, access is required to:
  - relevant and appropriate materials and equipment, and
  - applicable documentation including workplace procedures, regulations, codes of practice and operation manuals

**Method of assessment**

- Assessment of this unit must be undertaken by a registered training organisation
- As a minimum, assessment of knowledge must be conducted through appropriate written/oral tests
- Practical assessment must occur:

## EVIDENCE GUIDE

- through activities in an appropriately simulated environment at the registered training organisation, and/or
- in an appropriate range of situations in the workplace

## 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.

- |   |   |
|---|---|
| Work may be conducted:                              | <ul style="list-style-type: none"><li>• in a range of work environments</li><li>• by day or night</li></ul>   |
| Customers may be:                                   | <ul style="list-style-type: none"><li>• internal or external</li></ul>  |
| Workplaces may comprise:                            | <ul style="list-style-type: none"><li>• large, medium or small worksites</li></ul>  |
| Work may be conducted in:                           | <ul style="list-style-type: none"><li>• limited or restricted spaces</li><li>• exposed conditions</li><li>• controlled or open environments</li></ul>   |
| Tests and the isolation of faults may be performed: | <ul style="list-style-type: none"><li>• on a range of equipment used in the stevedoring, transport, warehousing, distribution and/or storage industries</li></ul>   |
| Personal protective equipment may include:          | <ul style="list-style-type: none"><li>• gloves</li><li>• safety headwear and footwear</li><li>• safety glasses</li><li>• two-way radios</li><li>• high visibility clothing</li></ul>  |
| Tests may include but are not limited to:           | <ul style="list-style-type: none"><li>• tests of operational performance</li><li>• tests as part of routine servicing</li><li>• identification of causes of poor or out-of-specification performance</li><li>• tests following servicing and/or adjustment of equipment</li></ul> |
| Records/results of tests may include:               | <ul style="list-style-type: none"><li>• details of faulty equipment or specific components</li><li>• details of action taken</li><li>• results of testing and associated recommendations</li><li>• details of repair and maintenance work to be undertaken</li></ul>              |
| Hazards in the work area may include exposure to:   | <ul style="list-style-type: none"><li>• chemicals</li><li>• dangerous or hazardous substances</li></ul>   |

## RANGE STATEMENT

- movements of equipment, goods and materials
  - a fire or explosion
  - faulty equipment/tools
- Depending on the type of organisation concerned and the local terminology used, workplace procedures may include:
- company procedures
  - enterprise procedures
  - organisational procedures
  - established procedures
- Consultative processes may involve:
- workplace personnel
  - supervisors and managers
  - equipment manufacturers
  - site visitors
  - contractors
  - official representatives
- Communication in the work area may include:
- phone
  - fax
  - email
  - internet
  - RF communications
  - barcode readers
  - oral, aural or signed communications
- Information/documents may include:
- workplace procedures and policies for the checking and assessment of the equipment concerned
  - manufacturers specifications for equipment/tools
  - equipment identification labels, barcodes and serial numbers
  - supplier and/or client instructions
  - relevant OH&S requirements and policies
  - relevant Australian standards and certification requirements
  - material safety data sheets where applicable
  - codes of practice including the National Standards for Manual Handling and the Industry Safety Code
  - relevant legislation, regulations and related documentation including the ADG Code
  - award, enterprise bargaining agreement and other industrial arrangements
  - quality assurance procedures
  - emergency procedures
- Applicable regulations and legislation may include:
- relevant codes and regulations pertaining to the checking and operation of the equipment concerned
  - relevant state/territory OH&S legislation



**RANGE STATEMENT**

- relevant state/territory environmental protection legislation
- licence, patent or copyright arrangements
- water and road use and licence arrangements
- export/import/quarantine/bond requirements
- workplace relations regulations including equal opportunity, equal employment opportunity and affirmative action legislation
- workers compensation regulations

**Unit Sector(s)**

Not Applicable

**Competency Field**

**Competency Field**

B - Equipment Checking and Maintenance