



Australian Government

MEM15020 Perform inspection of measuring instruments

Release: 1

MEM15020 Perform inspection of measuring instruments

Modification History

Release 1. Supersedes and is equivalent to MEM15020C Perform verification/certification or in-service inspection.

Application

This unit of competency defines the skills and knowledge required to test a range of measuring instruments used for trading activities and is designed for those performing trade measurement inspection or certification activities in public or private enterprises. It applies to the legal verification/certification or in-service inspection of measuring instruments used for trading activities.

It can be applied to the inspection of trade measuring instruments, including those used for measuring pre-packed articles, and direct and/or indirect trading to the public.

Where work requires measuring instruments of a lower level of complexity and range and lower scope relating to uniform test procedures and reference materials unit MEM15004 Perform inspection and unit MEM15005 Select and control inspection processes and procedures, should also be selected as appropriate.

Where use and maintenance of reference standards is required, unit MEM15017 Use and maintain reference standards should also be selected.

Where the selection and use of power tools/hand held operations is required, unit MEM18002 Use power tools/hand held operations should also be selected.

Some jurisdictions may require the holder of this unit to conform to regulatory and/or legislative requirements and users should check with the relevant authorities.

Band: B

Unit Weight: 12

Pre-requisite Unit

MEM09002 Interpret technical drawing

MEM11011 Undertake manual handling

MEM12023 Perform engineering measurements

MEM13015 Work safely and effectively in manufacturing and engineering

MEM16006 Organise and communicate information

MEM18001 Use hand tools

Competency Field

Quality

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Determine job requirements	1.1 Follow standard operating procedures (SOPs) 1.2 Comply with work health and safety (WHS) requirements at all times 1.3 Determine type and function of measuring instrument 1.4 Determine if a verification, certification or in-service tolerance is to be applied for inspection of the instrument 1.5 Identify appropriate tolerances for the determined inspection
2. Perform inspection of measuring instruments to determine compliance	2.1 Determine the impact of the operating environment on the instrument 2.2 Identify sources of any possible operational error in the use of measuring instruments 2.3 Select and use specialised equipment for the inspection 2.4 Inspect measuring instruments in accordance with appropriate test procedures, legislation, policies and WHS considerations
3. Finalise inspection and take appropriate action	3.1 Determine and implement the appropriate action to be undertaken as a result of the inspection 3.2 Monitor, identify and report performance trends of particular models of measuring instruments 3.3 Record the information in the organisation's information system

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

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

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the

candidate, accessibility of the item, and local industry and regional contexts) are included.	
Measuring instruments include one or more of the following:	• length of measures and measuring instruments • area measuring instruments • measures of volume • liquor measuring instruments • liquid measuring instruments • weighing instruments • milk tanks • vehicle tanks • liquefied gas flow meters • electronic metering systems • natural gas flow meters • dimensional measuring instruments • supplementary measuring instrument • auxiliary devices.
Monitoring includes one or more of the following:	• specific test equipment • random inspections • surveillance • complaint inspection • comparison/analysis of data over time • collation of statistical information • auditing of servicing licensees.
Specialised equipment includes one or more of the following:	• reference standards • safety equipment • product handling equipment • test equipment • specialised test equipment vehicles.
Legislation and policies include one or more of the following:	• enabling legislation • organisational policies and procedures • WHS • environmental legislation • enforcement policies • conditions of licence.
WHS considerations include one or more of the following:	• storage and transportation of test equipment • site/premises conditions • specific safety equipment and clothing • manual handling techniques.
Recording information includes one or more of the following:	• non-compliance notices • reflect/incorrect notices • fees • organisational reporting forms.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM15020C Perform verification/certification or in-service inspection.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>

Assessment Requirements for MEM15020 Perform inspection of measuring instruments

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Performance Evidence

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

- following work instructions, standard operating procedures (SOPs) and safe work practices
- examining instruments for existing verification/certification marks and determining the type of inspection required on at least two occasions
- selecting and using specialised test equipment on at least two occasions
- conducting inspection of measuring equipment on at least two occasions in accordance with test procedures, legislation and policies
- implementing work health and safety (WHS) considerations when carrying out inspection
- preparing technical reports relating to verification/certification or in-service inspection
- completing inspection documentation in accordance with procedures.

Note: Where a volume and/or frequency is not specified, demonstration must be provided at least once.

Knowledge Evidence

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

- safe work practices and procedures
- reference materials
- fundamental operating features and functions for different types of measuring instruments and the purpose of major components
- differences in the application of tolerances being applied
- the processes variations required between the verification/certification and in-service of a range of measuring instruments
- process variations between verification/certification and in-service inspection
- appropriate tolerances for a range of measuring instruments
- environmental factors that may not result in an instrument rejection but other remedial actions
- specialised equipment that can be required
- legislation and policies associated with conducting inspection of measuring instruments

- action to be taken where a conflict occurs between uniform test procedures and those test procedures contained in certificates of approval
- situations where the removal of verification/certification marks is impractical on some instruments and the appropriate action to be taken in these circumstances
- methods to monitor performance trends.
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Assessment Conditions

- Assessors must:
 - have vocational competency in performing verification/certification or in-service inspection at least to the level being assessed with relevant industry knowledge and experience
 - satisfy the assessor requirements in the *Standards for Registered Training Organisations 2015* or its replacement and comply with the *National Vocational Education and Training Regulator Act 2011*, its replacement or equivalent legislation covering VET regulation in a non-referring state/territory as the case requires.
- Where possible, assessment must occur in operational workplace situations. Where this is not possible or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications.
- 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.
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