



Australian Government

Department of Education, Employment and Workplace Relations

MSATMINS301A Inspect a range of simple measures

Revision Number: 1

MSATMINS301A Inspect a range of simple measures

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit of competency covers the ability to apply National Test Procedures to determine whether simple measures are suitable for trade use. The unit also involves auditing the performance of verifiers who have previously tested and marked simple measures for trade use.
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Application of the Unit

Application of the unit	This unit of competency is applicable to trade measurement inspectors appointed under national measurement legislation who may inspect a wide range of simple measures as part of their allocated duties. Simple measures such as trade masses, length measures and volume measures are used in a wide variety of commerce including retail, hospitality, pharmaceuticals and laboratory services. Industry representatives have provided case studies to illustrate the practical application of this unit of competency and to show its relevance in a workplace setting. These are found at the end of this unit of competency under the section 'This competency in practice'.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for inspection	1.1. Identify and evaluate the type of simple measure to be inspected 1.2. Access and review any history of previous inspections at trader's premises 1.3. Access and correctly interpret appropriate documentation required for the inspection 1.4. Identify and access test equipment, products and consumables required for the inspection 1.5. Ensure specified test equipment is fit for purpose in accordance with applicable legislation and organisational procedures 1.6. Store and transport test equipment in accordance with organisational procedures and industry best practice 1.7. Identify workplace health and safety issues relevant to the inspection
2. Initiate inspection	2.1. Identify the site controller, explain the purpose of the inspection and produce formal identification, if required 2.2. Identify relevant site health and safety issues and implement appropriate control strategies 2.3. Conduct a preliminary evaluation of the site's trading practices and prioritise activities to maximise inspection outcomes 2.4. Identify trade measuring instruments and plan inspection to minimise disruption to the public and trader
3. Evaluate simple measure performance	3.1. Evaluate whether the operating environment will impact on simple measure performance 3.2. Modify the operating environment or implement alternative arrangements to ensure reliable test conditions as necessary 3.3. Identify the maximum permissible errors for the simple measure from the legislative requirements 3.4. Use test equipment safely in accordance with applicable legislation and organisational procedures 3.5. Check simple measure for compliance with the appropriate Certificates of Approval 3.6. Inspect the simple measure in accordance with relevant National Test Procedure and appropriate

ELEMENT	PERFORMANCE CRITERIA
	National Measurement Institute policy 3.7. Evaluate results against prescribed performance criteria and determine if the simple measure is suitable for trade use in accordance with legislative requirements
4. Conduct a verifier performance audit	4.1. Identify the scope of the verifier audit 4.2. Identify the expected outcomes of the verifier audit 4.3. Assess the verifier's performance against the expected outcome 4.4. Analyse any variances from the expected outcomes to identify any isolated or systemic problem
5. Analyse and report inspection results	5.1. Analyse inspection data for unacceptable performance trends 5.2. Display the inspection result on the simple measure in accordance with legislative requirements 5.3. Use test reports to present inspection results in the required format 5.4. Complete inspection documentation in accordance with legislative requirements and organisational procedures 5.5. Communicate inspection results within the specified time and in accordance with organisational guidelines 5.6. Recommend follow-up actions as appropriate
6. Act on non-compliance	6.1. Select applicable enforcement action for the non-compliance in accordance with legislative requirements, organisational policy and procedures 6.2. Inform traders of non-compliances and consequences of failing to have them corrected 6.3. Implement enforcement action in accordance with legislative requirements, organisational policy and procedures 6.4. Maintain the rights of the trader at all times

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- accessing, interpreting and applying a range of documents for the inspection of simple measures including:
 - national measurement legislation
 - routine National Test Procedures
 - Certificates of Approval
 - National Measurement Institute inspection policy
 - Australian Standards
- accessing and interpreting Certificates of Verification for a limited range of reference standards
- use routine communication and negotiation skills to:
 - explain the purpose of inspection
 - inform traders of non-compliances and consequences of failing to rectify them
 - explain procedures and inspection outcomes to traders, verifiers and managers
- accessing, transporting, setting up, validating, using and maintaining a limited range of test equipment and reference standards
- identifying and evaluating environmental impacts on performance of a range of simple measures
- conducting tests and recording results with close attention to detail and accuracy
- performing calculations involving fractions, decimals, ratios, proportions and percentages
- using scientific notation, correct units and the correct number of significant figures
- analysing performance results over a single or limited range of operating conditions
- identifying non-compliances with national measurement legislation relating to simple measure or verifier performance and initiate appropriate enforcement action including warning, infringement notice, undertaking, injunction and prosecution
- identifying potential trading practice non-compliance with national measurement legislation and initiating an appropriate inspection strategy
- planning routine tasks
- developing/implementing an efficient inspection strategy that has a limited impact on others
- demonstrating professionalism and maintaining the rights of the trader at all times
- solving routine/expected problems
- working safely

Required knowledge

REQUIRED SKILLS AND KNOWLEDGE

- general chemical and physical principles and concepts including:
 - weight, mass, gravity and density
 - temperature effects and coefficients of expansion
- basic knowledge of the operating procedures across a limited range of environments including laboratories, retail and manufacturing
- knowledge of metrological terms and terminology specific to simple measures such as:
 - maximum permissible errors
 - traceability
 - error of measurement
 - error of indication
- national measurement legislation applicable to simple measures
- detailed knowledge of National Test Procedures and operating procedures for equipment and reference standards used in job role including:
 - purpose of test
 - test conditions and possible environmental impacts on performance of simple measure
 - key preparation/measurement steps in test method
 - calculation steps to give results in appropriate units and precision
 - maximum permissible errors for simple measures under inspection
- procedures for completing inspection documentation
- organisational policy and procedures for inspecting simple measures

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	Competency must be demonstrated in the ability to perform consistently at the required standard for any class of simple measures listed in the Range Statement.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Assessors should ensure that candidates can: • identify, access and apply test procedures • identify and use suitable reference standards • evaluate and adjust the impact of the operating environment on the performance of simple measures • analyse test results to determine the simple measure's suitability for verification (trade use) • identify the scope of a verifier performance audit and assess results with expected outcomes • audit the performance of verifiers of simple measures • identify and implement additional inspection strategies for non-instrument related breaches of national measurement legislation • recognise and act on non-compliance • maintain the security and confidentiality of data in accordance with organisational and regulatory requirements • report results in the required formats and expected timeframe.
Context of and specific resources for assessment	This unit of competency is to be assessed in the workplace or simulated workplace environment. This unit of competency may be assessed with: • MSATMREF301A Use and maintain reference standards. Resources may include: • simple measures, test equipment and reference standards • computer and relevant software and/or organisation information management system • Certificates of Approval for simple measures • relevant legislative and organisational procedures.

EVIDENCE GUIDE**Method of assessment**

The following assessment methods are suggested:

- questions to assess understanding of relevant procedures, licensing requirements, trader obligations and remedial actions
- review of inspection reports and verifier performance audit reports prepared by the candidate
- feedback from supervisors and peers regarding the candidate's ability to verify the performance of simple measures in accordance with legislative and organisational procedures
- observation of the candidate conducting an inspection.

In all cases, practical assessment should be supported by questions to assess underpinning knowledge and those aspects of competency which are difficult to assess directly. Questioning techniques should suit the language and literacy levels of the candidate.

This competency in practice

Industry representatives have provided the case studies below to illustrate the practical application of this unit of competency and to show its relevance in a workplace setting.

An inspector makes an unannounced visit to a manufacturer's premises that packages turpentine, linseed oil, kerosene and methylated spirits. His/her visit identifies that a 5L verified conical measure is being used for trade to check the volume of pre-packaged articles. He/she visually inspects the measure for compliance with the relevant Certificate of Approval and checks the existing certifying marks. The verifier notices that the volume measure is dented. He/she then tests the accuracy of the measure using a suitable 5L reference standard and finds it to be outside the maximum permissible error. He/she notifies the manager of this non-compliance and advises that any further use of this measure will result in enforcement action. On returning to their office, the inspector reports the need to inspect the premises and market place for inaccurate pre-packaged items manufactured by the company.

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. Bold italicised wording, if used in the performance criteria, is detailed below. 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) may also be included.

Appropriate documentation

Where reference is made to documentation, it is expected the latest version will be used.

Appropriate documentation may include:

- reference standards
- Certificates of Verification
- Certificates of Approval for simple measures
- test procedures for verifying simple measures
- organisational test reports
- organisational procedures e.g. company quality assurance manual
- National Measurement Act
- occupational health and safety (OHS) regulations, guidelines and procedures and material safety data sheets (MSDS)
- equipment manuals and warranty, supplier catalogues, and handbooks
- National Measurement Institute policy
- Australian Standards

Certificates of Approval

Certificates of Approval may include:

- any Certificate issued by the Chief Metrologist under Regulation 60 of the National Measurement Regulations approving the pattern of a simple measure as being suitable for trade

Test equipment

Test equipment may include:

- reference standards of measurement
- equipment other than reference standards of measurement such as weighing instruments, strikes and funnels

Legislation

Legislation may include:

- national measurement legislation

RANGE STATEMENT	
	• applicable Commonwealth, state and territory OHS legislation
National Test Procedures for simple measures	National Test Procedures for simple measures may include: • length measures • alcoholic beverage measures • lubricating oil measures • graduated measures • pharmaceutical measures • trade masses • any other test procedure prescribed by the National Measurement Institute
OHS and environmental management requirements	OHS and environmental management requirements refers to: • all operations must comply with enterprise OHS and environmental management requirements, which may be imposed through state/territory or Federal legislation. These requirements must not be compromised at any time • all operations assume the potentially hazardous nature of samples and require standard precautions to be applied • where relevant, users should access and apply current industry understanding of infection control issued by the National Health and Medical Research Council and State and Territory Departments of Health
Operating environmental impacts	Operating environment impacts may include: • vibration • wind • heat • dust • electromagnetic interference • out of level
Records	Records may include: • test reports • safety procedures • a history of equipment calibration and test results

RANGE STATEMENT**Simple measures**

Inspectors may be required to test and mark any of the classes of simple measures from the following list.

Simple measures may include:

- length measures
- alcoholic beverage measures
- lubricating oil measures
- graduated measures
- pharmaceutical measures
- trade masses
- any other simple measure prescribed by the National Measurement Institute

Unit Sector(s)**Unit sector**

Trade Measurement

Competency field**Competency field****Co-requisite units****Co-requisite units**