



**Australian Government**

# **Assessment Requirements for MSL905002 Create or modify calibration procedures**

**Release: 1**

# **Assessment Requirements for MSL905002 Create or modify calibration procedures**

## **Modification History**

Release 1. Supersedes and is equivalent to MSL905002A Create or modify calibration procedures

## **Performance Evidence**

Evidence of competence in this unit must satisfy all of the requirements of the elements and performance criteria, and include demonstration of:

- researching current calibration procedures, technology and equipment
- following all relevant safety procedures
- creating and modifying at least one (1) calibration procedure, trialling it and confirming that it is fit for purpose to meet technical and/or client requirements
- applying specialised technical knowledge to critically analyse and resolve complex problems associated with measurement non-conformances where solutions are not obvious or readily available
- developing or adapting calibration methods to suit technical and/or client requirements
- conducting reliable calibration/testing trials to ensure a high degree of reproducibility
- explaining complex calibration procedures to clients and clarifying requirements and deviations
- liaising with peers and technical staff from other laboratories to clarify and validate test methods
- estimating measurement uncertainty and applying statistical techniques for analysing test and/or calibration data
- writing calibration procedures using an unambiguous, logical sequence of instructions that meet statutory and regulatory requirements
- preparing all test documentation accurately, concisely and in accordance with requirements
- recognising and reporting opportunities for improvements.

## Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- requirements for the competence of testing and calibration laboratories (e.g. AS ISO/IEC 17025) as they affect job role and responsibilities
- limits of authority and procedures for creating or modifying calibration procedures
- structure and terminology used in standard calibration methods, procedures, requests and instructions
- current calibration methods, procedures and technology applications used in laboratory
- implications of modifying standard calibration procedures
- equipment specifications and limitations and the implications of equipment substitution
- hierarchy and appropriate selection of reference materials
- handling, transport, storage and operation requirements of reference and working standards
- calculation procedures to give results in appropriate accuracy, precision and units
- methods for statistical analysis (means, ranges and standard deviations) and estimation of uncertainty of measurement (may include the use of software)
- equipment and testing method troubleshooting procedures
- workplace procedures and legislative requirements for documenting calibration procedures
- workplace and/or legal traceability requirements
- work health and safety (WHS) and laboratory environmental control requirements.

Additional knowledge requirements relevant to the workplace context that apply for different calibration fields must be assessed, including testing and calibration conducted in the following fields:

- acoustic and vibration measurement
- chemical testing
- construction materials testing
- electrical testing
- heat and temperature measurement
- mechanical testing
- metrology
- non-destructive testing
- optics and radiometry
- pressure testing.

## Assessment Conditions

- Judgement of competence must be based on holistic assessment of the evidence. Assessment methods must confirm consistency of performance over time, rather than a single assessment event.
- This unit of competency is to be assessed in the workplace or a simulated workplace environment. A simulated workplace environment must reflect realistic operational workplace conditions that cover all aspects of workplace performance, including the environment, task skills, task management skills, contingency management skills and job role environment skills.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- 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.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept in each case).
- This unit of competency may be assessed with:
  - MSL925001 Analyse data and report results
  - MSL925002 Analyse measurements and estimate uncertainties
- Holistic assessment methods include:
  - review of documented calibration procedures modified or developed by the candidate and associated validation data
  - feedback from supervisors and/or customers regarding quality of calibration procedures developed or modified by the candidate
  - observation of the candidate creating/modifying calibration procedures
  - oral or written questioning to check required knowledge of complex calibration procedures.
- Access is required to instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit, including, but not limited to:
  - specialised calibration/test equipment, reference standards and materials and laboratory facilities
  - access to a library of calibration methods, procedures and equipment specifications
  - workplace quality manual and procedures.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competence and currency.
- Technical competence can be demonstrated through:
  - relevant VET or other qualification/Statement of Attainment AND/OR
  - relevant workplace experience.
- Currency can be demonstrated through:
  - performing the competency being assessed as part of current employment OR
  - having consulted with a laboratory about performing the competency being assessed within the last twelve months.

## **Links**

MSA Training Package Implementation Guides - <http://mskills.org.au/training-packages/info/>