



Australian Government

Assessment Requirements for MSL904001 Perform standard calibrations

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MSL904001A Perform standard calibrations

Performance Evidence

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

- selecting and applying appropriate test methods and calibration procedures
- safely calibrating test and measurement equipment in accordance with standard calibration procedures and documented test methods on at least two (2) occasions
- maintaining close attention to all relevant procedures, regulatory requirements and the accuracy and precision of measurement to ensure the quality and integrity of test/calibration results
- critically examining each calibration step to ensure repeatability and validity of data
- using calibration and correction charts
- performing calculations to give results in appropriate accuracy, precision and units
- using statistical analysis (means, ranges and standard deviations) and estimation of uncertainty of measurement, where required (can use software)
- preparing test/calibration documentation that is accurate and complies with requirements
- recognising problems or departures in systems and documentation and initiating actions to prevent or minimise them
- recognising and reporting opportunities for improvements.

Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- purpose of metrology and calibration, including common terminology, concepts, principles, procedures and applications
- National Association of Testing Authority's (NATA) and National Measurement Institute's (NMI) role in the measurement and testing system in Australia
- traceability, including legal requirements for traceability
- requirements for the competence of testing and calibration laboratories (e.g. AS ISO/IEC 17025) as they affect job role and responsibilities
- hierarchy and appropriate selection of reference materials and instruments
- non-conformance/non-compliance procedures and protocols associated with equipment, reference material and calibration procedures
- troubleshooting procedures for equipment and test methods
- reporting procedures and legislative requirements
- handling, transport, storage and operation of reference and working standards

- 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 measurement.

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 (provided a record is kept) or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept).
- This unit of competency may be assessed with:
 - MSL924001 Process and interpret data
 - relevant MSL974000 series unit/s of competency
 - relevant MSL975000 series unit/s of competency
- Holistic assessment methods include:
 - review of calibration results, uncertainty calculations and workplace documentation completed by the candidate
 - feedback from supervisors and/or customers regarding quality of calibration services provided by the candidate
 - observation of the candidate performing standard calibrations

- oral or written questioning to check required knowledge of standard 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 laboratory facilities
 - 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

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>