



Australian Government

Assessment Requirements for MSL905001 Perform non-standard calibrations

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MSL905001A Perform non-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:

- recognising non-conforming calibration tasks and requests and assessing their significance
- researching and selecting the most appropriate test method or calibration procedure for a given measurement request and conducting the calibration
- modifying and revising existing procedures or substituting alternative instruments and measurement standards
- safely performing non-standard calibrations of test and measurement equipment in accordance with workplace procedures on at least two (2) occasions
- quantifying the potential or actual impact of a wide range of test/environmental/equipment influences on data quality
- maintaining close attention to all relevant safety 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 calculation procedures to give results in appropriate accuracy, precision and units
- using methods for statistical analysis (means, ranges and standard deviations) and estimation of uncertainty of measurement (can use software)
- preparing test/calibration documentation that is accurate and complies with requirements
- explaining complex calibration procedures to clients and clarifying requirements and deviations
- 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 changing or deviating from standard calibration methods and procedures
- structure and terminology used in standard calibration methods, procedures, requests and instructions
- current calibration methods, procedures and technology applications used in the laboratory
- implications of changing or deviating from standard calibration procedures
- equipment specifications and limitations and the implications of equipment substitution
- hierarchy of reference materials
- handling, transport, storage and operation requirements of reference and working standards
- equipment and testing method troubleshooting procedures
- reporting procedures and legislative requirements
- 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 non-standard calibration results, uncertainty calculations and documentation completed by the candidate
 - feedback from supervisors and/or customers regarding quality of calibration services provided by the candidate
 - observation of the candidate conducting non-standard calibrations
 - oral or written questioning to check required knowledge of non-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 materials 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

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