



Australian Government

**Assessment Requirements for MSL977002
Troubleshoot equipment and/or production
processes**

Release: 1

Assessment Requirements for MSL977002 Troubleshoot equipment and/or production processes

Modification History

Release 1. Supersedes and is equivalent to MSL977002A Troubleshoot equipment and/or production processes

Performance Evidence

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

- troubleshooting at least two (2) different testing equipment/testing issues related to production processes to identify causes of problems and recommend corrective action
- locating and interpreting relevant information, such as performance data, calibration and maintenance records
- using technical knowledge and skills to investigate abnormal performance and/or assay results
- applying technical, instrumental and equipment knowledge and skills to troubleshoot testing equipment/testing issues
- identifying causes of faulty or substandard performance
- proposing adjustments, rectifications and modifications
- testing the results of adjustments, rectifications and modifications
- maintaining accurate and complete workplace records
- reporting the process and outcomes of investigations with clear recommendations
- following workplace safety procedures.

Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- relevant regulatory, licensing and testing requirements
- principles and concepts that underpin operation of testing equipment and test methods
- overall characteristics, capabilities and limitations of testing equipment and its components
- functions of key equipment components and sub-systems and effects on outputs and results of modifying variables
- possible effects of matrix and impurities on analytical methods
- effects on outputs and results of varying test procedure and/or modifying test materials or reagents
- troubleshooting procedures and elimination techniques for isolating causes of problems
- mathematical and statistical procedures for evaluating test data
- workplace requirements for problem investigation and reporting
- relevant hazards, work health and safety (WHS) and environment requirements.

Assessment Conditions

- Judgment 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:
 - MSL977001 Contribute to development of products and applications
 - MSL977003 Contribute to validation of test methods.
 - MSL977004 Develop or adapt analyses and procedures
- Holistic assessment methods include:
 - review of reports outlining at least two (2) investigations conducted by the candidate, including the nature and identified causes of substandard performance, test data, trial of corrective actions and final recommendations
 - feedback from supervisors and/or clients about the candidate's ability to troubleshoot testing equipment/issues, identify problems and recommend valid corrective actions
 - review of candidate's responses to simulated equipment failure scenarios
 - oral or written questioning covering testing equipment operation, common testing issues, troubleshooting procedures and problem-solving techniques.
- Access is required to instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit including, but not limited to:
 - a standard laboratory equipped with appropriate equipment, samples, reagents and test methods, laboratory procedures and standard operating procedures (SOPs)
 - performance data, calibration and maintenance records relevant to investigation.
- 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/>