



Australian Government

Assessment Requirements for MSL973010 Conduct laboratory-based acceptance tests for construction materials

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MSL973010A Conduct laboratory-based acceptance tests for construction materials

Performance Evidence

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

- safely preparing at least three (3) different laboratory samples or test pieces and conducting laboratory tests on them to confirm their acceptability
- safely conducting laboratory-based acceptance tests in accordance with workplace procedures and test methods to provide reliable data within the required timeframe
- planning efficient work sequences involving multiple/parallel tasks
- checking, operating, cleaning, maintaining and storing test equipment in accordance with workplace procedures
- recognising obvious errors or atypical data and taking appropriate corrective actions
- estimating and calculating simple scientific quantities, such as density and moisture content
- recording and presenting results accurately and legibly
- maintaining security, integrity and traceability of all samples, test pieces, test data, results and documentation
- keeping accurate and complete technical and administrative records.

Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- the purpose and principles of construction materials tests performed as part of job role and key preparation/measurement steps in the test methods
- the properties of construction materials under test
- calculation steps to give results in appropriate units and precision
- expected values for sample type and sources of uncertainty (and methods for control) in construction materials tests routinely used in job role
- pre-use checks and operating procedures for test equipment routinely used in job role
- procedures for recording and reporting test results, calculations, test observations, and unexpected or atypical results and equipment problems
- procedures for ensuring traceability of samples, test pieces, test data and results
- workplace confidentiality requirements relevant to job role
- relevant hazards, work health and safety (WHS) and environmental management requirements.

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:
 - MSL922001 Record and present data
 - MSL943002 Participate in laboratory or field workplace safety
 - MSL953001 Receive and prepare samples for testing
- Holistic assessment methods include:
 - review of test data, results and records generated by the candidate
 - feedback from supervisors and clients regarding the candidate's ability to conduct a range of laboratory-based acceptance tests reliably, safely and efficiently
 - oral/written questions about workplace procedures and test methods relevant to job role.
- Access is required to instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit, including, but not limited to:
 - sample preparation and test equipment and materials specified in the test method
 - test methods and description of test set-up, data sets and records
 - calculator and/or computer and relevant software or laboratory information system.
- 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/>