



Australian Government

Assessment Requirements for MSL973006

Prepare trial batches for evaluation

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MSL973006A Prepare trial batches for evaluation

Performance Evidence

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

- preparing and evaluating at least three (3) different trial batches of materials
- performing operations in accordance with laboratory and/or workplace procedures, and appropriate legislative requirements
- accurately measuring, calculating and recording batch quantities, concentrations and other relevant parameters
- performing simple calculations, including:
 - proportion, ratio and percentage for batch quantities
 - concentrations
 - other relevant parameters
- performing representative sampling of trial batches
- evaluating properties of batch mixtures by inspection and standard test methods
- safely setting up, operating and maintaining tools and equipment in accordance with workplace procedures
- safely handling, transporting and storing materials in accordance with workplace procedures
- recognising and reporting problems and atypical situations to relevant personnel.

Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- concepts of metrology, including:
 - all measurements are estimates
 - measurements belong to a population of measurements of the measured parameters
 - precision, accuracy and significant figures
 - sources of error, uncertainty and repeatability
 - traceability
- international system of units (SI)
- nature of batch materials and products used in job role
- properties of mixing materials and how they affect the properties of the final product
- principles and importance of representative sampling
- principles of the standard test methods and specifications used for evaluating batch materials in job role
- typical problems, including:
 - not following standard operating procedures (SOPs)
 - measurement errors
 - calculation errors
 - materials of unreliable quality
 - insufficient mixing
 - poor sampling procedures
 - equipment breakdown and breakage
- workplace traceability requirements
- relevant hazards, work health and safety (WHS) and environment 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:
 - MSL952002 Handle and transport samples or equipment
 - MSL954001 Obtain representative samples in accordance with sampling plan
 - MSL973001 Perform basic tests
- Holistic assessment methods include:
 - analysis of trial batches prepared by the candidate over a period of time to ensure accurate and consistent outputs are produced within required timelines
 - inspection of workplace documentation completed by the candidate
 - feedback from peers and supervisors
 - use of suitable simulation and/or a range of case studies/scenarios
 - oral/written questions about workplace procedures covering safe preparation of trial batches and standard methods for sampling and testing mixes.
- 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 basic test equipment, common measuring instruments, materials, standard methods, workplace procedures, MSDS and equipment manuals
 - samples, such as soils, concrete, asphalt, aggregates, polymers, ceramics, metals, foodstuffs and solvents
 - laboratory equipment, such as ovens; sieves; balances; volumetric measures and mixers; hand tools, shovels, scoops and spatulas; and consumables, including sample bags and labels
 - laboratory documentation, such as batch specifications and worksheets.
- 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/>