



Australian Government

Assessment Requirements for MSS027011 Select, commission and maintain environmental monitoring instruments

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MSS027011A Select, commission and maintain environmental monitoring instruments

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, commissioning and maintaining at least one (1) environmental monitoring instrument
- training at least one (1) operator to use a monitoring instrument safely and reliably
- determining the required specifications for a monitoring instrument after consideration of its intended use
- locating, interpreting and comparing technical information for available instrument options
- liaising with suppliers to clarify instrument suitability and availability
- selecting suitable instruments on the basis of factors, such as intended use (fixed/portable, laboratory/field); suitable range, accuracy, sensitivity and response time; robustness, serviceability and advantages/disadvantages/limitations
- seeking advice/assistance with evaluating and procuring instruments if beyond own technical competence/responsibility
- arranging for instrument procurement in accordance with workplace procedures
- conducting instrument pre-use and calibration checks, troubleshooting common faults and conducting basic repairs
- safely operating environmental monitoring instruments to obtain reliable data
- interpreting manuals and writing operating instructions for monitoring instruments
- developing and delivering an appropriate training program for instrument operators using established adult learning principles
- maintaining accurate and complete records of instrument calibration, use, maintenance and operator training
- working safely and monitoring the safety of others.

Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- environmental monitoring terms and concepts, and measurement parameters used in job role
- workplace procedures/methods for conducting surveys, monitoring, sampling and in-situ measurements used in job role

- instrumentation terms and concepts, such as operating voltage, accuracy, response time, sensitivity, detection limit, linearity and instrument uncertainty
- characteristics, capabilities, limitations, function of key components and operating principles for monitoring instruments used in the workplace
- role and importance of regular calibration and pre-use checks and maintenance
- common instrument faults, troubleshooting, recommended remedial actions and repairs
- common instrument operator errors
- adult learning principles, such as:
 - explaining aims and objectives of training program and linking learning with work tasks
 - sequencing learning activities, presenting new information in manageable chunks and reinforcing important points
 - providing opportunities to practise new skills and solve common problems
 - using questions to check understanding and providing regular, constructive feedback
- relevant hazards, health, safety and workplace emergency response procedures.

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).
- Holistic assessment methods include:
 - review of records of instrument selection, commissioning and maintenance generated by the candidate
 - review of instrument training materials and records generated by candidate
 - feedback from manager that sufficient monitoring instruments are fit for purpose and available when required
 - oral and/or written questions/calculations to assess the candidate's understanding of environmental monitoring parameters; and the operating principles, set-up, calibration and basic maintenance of environmental monitoring instruments used in job role
 - observation of the candidate checking, using and maintaining monitoring instruments and/or instructing others in their use.

- Access is required to all instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit including, but not limited to:
 - environmental management plans
 - environmental monitoring instruments, specifications and manuals
 - workplace procedures for procurement of equipment and materials
 - background information for environmental sites/projects/programs
 - workplace information management systems, project management procedures and tools.
- 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 competency 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 an organisation providing environmental monitoring, management or technology related services about performing the competency being assessed within the last twelve months.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>