



Australian Government

MSL972001 Conduct routine site measurements

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MSL972001A Conduct routine site measurements

Application

This unit of competency covers the ability to make direct measurements using workplace procedures. Measurements will be straightforward and involve a minimal number of steps, take a short time, have easily recognised control limits and use equipment calibrated by others. Measurements include the use of instruments and/or kits.

This unit of competency is applicable to production operators, field assistants and laboratory assistants in manufacturing, construction materials and environmental services industry sectors.

While no specific licensing or certification requirements apply to this unit at the time of publication, laboratory operations are governed by relevant legislation, regulations and/or external accreditation requirements. Local requirements should be checked.

Pre-requisite Unit

Nil

Competency Field

Testing

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	Prepare for measurements	1.1	Confirm the purpose, priority and nature of measurements required
		1.2	Liaise with relevant personnel to arrange site access and all necessary clearances/permits
		1.3	Identify site hazards and review workplace safety procedures
		1.4	Assemble all measuring and safety equipment and check they are fit for purpose

- 1.5 Check all equipment/materials against a given inventory and stow them to ensure safe transport
 - 1.6 Arrange appropriate transport for site access as required
- 2 **Perform measurements**
 - 2.1 Locate measurement points and services at the site
 - 2.2 Gain access to measurement points by removing covers and locks as appropriate
 - 2.3 Seek advice if the required measurements cannot be made or if procedures require modification
 - 2.4 Operate measuring equipment in accordance with workplace procedures and manufacturer instructions
 - 2.5 Take sufficient readings to ensure reliable data
 - 2.6 Record data with appropriate accuracy, precision and units
 - 2.7 Record environmental/site conditions and any other observations that may impact on data quality
 - 2.8 Recognise obvious errors/atypical data and take appropriate corrective action
 - 2.9 Secure measuring points by replacing covers and locking as appropriate
- 3 **Finalise measurements**
 - 3.1 Follow workplace procedures for the cleaning/decontamination of equipment and vehicle as necessary
 - 3.2 Check all equipment and materials against inventory and stow for safe transport
 - 3.3 Liaise with relevant personnel to restore normal production and/or services as necessary
 - 3.4 Report all measurements in accordance with workplace procedures
 - 3.5 On return, check and document serviceability of equipment before storage

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| 4 | Maintain a safe work environment | 4.1 | Use established work practices and personal protective equipment (PPE) to ensure personal safety and that of others |
| | | 4.2 | Minimise environmental impacts of measurements and generation of waste |
| | | 4.3 | Dispose of all waste in accordance with workplace procedures |

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Standards, codes, procedures and/or workplace requirements

Standards, codes, procedures and/or workplace requirements include the latest version of one or more of:

- Australian and international standards covering the requirements for the competence of testing and calibration laboratories, laboratory safety, quality management and environmental management
- national work health and safety (WHS) standards and codes of practice, national environmental protection measures, and national measurement regulations and guidelines
- specific codes, guidelines and procedures, such as National Association of Testing Authorities (NATA) accreditation requirements and principles of good laboratory practice (GLP)
- workplace documents, such as standard operating procedures (SOPs); quality and equipment manuals; calibration and maintenance schedules; material safety data sheets (MSDS); safety procedures; material, production and product specifications; production and laboratory schedules; workplace recording and reporting procedures; waste minimisation and safe disposal procedures; and maps and site plans

- measurement procedures for specific sites and clients

Direct measurements Direct measurements role include, but are not limited to, one or more of:

- basic production/process parameters (e.g. flow, temperature, pressure, mass and depth, and dimensions)
- simple surveys (e.g. number of trees in quadrant)
- meteorological measurements (e.g. temperature, rainfall and wind)
- sound (e.g. dB level and dBA)
- light levels and illumination
- background radiation (e.g. Geiger counter)
- chemical tests using simple instruments and/or kits to test pH, specific ions, such as iron in water using dipsticks, dissolved oxygen (DO) and electrical conductivity (EC)

Measuring equipment

Measuring equipment includes, but is not limited to, one or more of:

- tape measures, rulers, micrometers, Vernier callipers and water level indicators
- balances
- meter/probe systems, such as DO and EC
- analogue and digital meters, such as voltage, current, resistance, pressure, temperature, barometers, anemometers and hygrometers
- dipsticks and spot test kits
- clocks and timing devices

Services

Services include one or more of:

- water supply, gas and electricity
- telecommunications
- irrigation, stormwater and drainage systems
- production plant

Safety procedures

Safety procedures include, but are not limited to, one or more of:

- use of PPE
- handling, labelling and storing hazardous material and equipment in accordance with labels, MSDS, manufacturer instructions, and workplace procedures and regulations
- regular cleaning and/or decontamination of equipment
- use of machinery guards

- signage, barriers, service isolation tags, traffic control and flashing lights, and lockout and tag out procedures

Minimising environmental impacts

Minimising environmental impacts includes, but is not limited to, one or more of:

- appropriate disposal of surplus, spent or purged materials and hazardous waste
- recycling of non-hazardous wastes
- driving vehicles to minimise soil erosion and damage to fauna and vegetation
- cleaning of vehicles and equipment to prevent transfer of pests and contaminants

WHS and environmental management requirements

WHS and environmental management requirements include:

- complying with WHS and environmental management requirements at all times, which may be imposed through state/territory or federal legislation. These requirements must not be compromised at any time
- applying standard precautions relating to the potentially hazardous nature of samples
- accessing and applying current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and State and Territory Departments of Health, where relevant

Unit Mapping Information

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Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>