



Australian Government

Assessment Requirements for MSL943001

Work safely with instruments that emit ionising radiation

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MSL943001A Work safely with instruments that emit ionising radiation

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 handling, storing and transporting at least one (1) instrument that emits ionising radiation in accordance with established safe work practices, laboratory procedures and licensing requirements
- safely checking the operation and calibration status of at least one (1) instrument that emits ionising radiation and then operating it to conduct a radiation survey
- maintaining instrument security and keeping other personnel clear of radiation sources
- using a radiation dosimeter to accurately monitor personal exposure to radiation
- recording and reporting instrument condition and use, observations, data and survey results in accordance with workplace procedures
- recognising and reporting atypical conditions and problems to appropriate personnel promptly

following procedures for working safely, minimising environmental impacts and responding to emergency incidents and accidents.

Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- radiation concepts and principles, including nature of radiation; different types of radiation, their characteristics, sources and shielding methods; radiation intensity; physiological effects of ionising radiation; external radiation protection and practical methods of minimising radiation exposure
- methods of measuring and detecting ionising radiation
- national codes of practice and state or territory licensing requirements for use of instruments that emit ionising radiation
- function of key components, pre-use and calibration status checks and safe operating procedures for the instrument used
- work health and safety (WHS) and emergency procedures for safe handling of radiation sources and working with the instrument used
- critical elements of radiation safety, including:
 - time (reduce the exposure time)
 - distance (maintain greatest distance possible at all times)
 - shielding (interpose as much radiation shielding as possible between yourself and the radiation source).

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:
 - MSL924001 Process and interpret data
 - MSL943002 Participate in laboratory or field workplace safety
 - MSL974010 Perform mechanical tests
- Holistic assessment methods include:
 - review of the quality of survey data/results achieved by the candidate over time
 - review of records and workplace documentation completed by the candidate (for accuracy and completeness)
 - observation of candidate safely handling, storing, transporting and using the instrument
 - feedback from peers and supervisors about the candidate's consistent ability to safely use instruments that emit ionising radiation
 - review of the candidate's response to suitable emergency simulations, case studies or scenarios
 - oral or written questioning to check required knowledge of radiation concepts and principles and the safe use of instruments that emit ionising radiation.
- Access is required to all instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit, including, but not limited to:
 - instruments that emit ionising radiation and radiation monitors/dosimeters and associated equipment, such as battery chargers
 - documentation, including user manuals, workplace safety procedures and test/survey methods
 - radiation warning signs and barriers
 - storage areas for nuclear sources
 - motor vehicles.
- 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/>