



Australian Government

MEM24009 Perform basic radiographic testing

Release: 1

MEM24009 Perform basic radiographic testing

Modification History

Release 1. Supersedes and is equivalent to MEM24009B Perform basic radiographic testing.

Application

This unit of competency defines the skills and knowledge required to perform basic radiographic testing procedures and work with ionizing radiation in open and closed sites on fabrication, structures and components across a wide range of industries and industrial applications. It applies to situations where knowledge of metallurgy associated with the level of application in this unit is required.

All testing must be completed with particular attention to personal and WHS regulations. Ionizing radiation equipment materials and chemicals, which are subject to codes and regulations, must be stored, used, and transported in accordance with safe work practices.

This unit should not be selected when unit MEM24010 Perform radiographic testing has already been selected.

Where interpretation of technical drawings is required unit MEM09002 Interpret technical drawing should also be selected.

Where the selection and use of engineering measurement is required unit MEM12023 Perform engineering measurements should also be selected.

Where the selection and use of power tools are required unit MEM18002 Use power tools/hand held operations should also be selected.

No licensing or legislative requirements apply to this unit at the time of publication. Certification against Australian Standards may be achieved where assessment in this unit of competency is carried out in conjunction with an examining authority as described in AS ISO 9712 Non-destructive testing — Qualification and certification of NDT personnel.

Band: A

Unit Weight: 2

Pre-requisite Unit

MEM11011 Undertake manual handling

MEM13018 Work safely with ionizing radiation

MEM13015 Work safely and effectively in manufacturing and engineering

MEM16006 Organise and communicate information

MEM18001 Use hand tools

Competency Field

Non-destructive testing

Unit Sector

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Determine job requirements	1.1 Follow standard operating procedures (SOPs) 1.2 Comply with work health and safety (WHS) requirements at all times 1.3 Use appropriate personal protective equipment (PPE) in accordance with SOPs 1.4 Identify job requirements from specifications
2. Prepare inspection areas ready for basic radiographic testing	2.1 Clean radiographic specimens and prepare for testing using appropriate procedures and materials 2.2 Carry out preparation processes in accordance with the relevant procedures 2.3 Assess inspection areas visually and identify obvious discontinuities
3. Set up radiographic test equipment	3.1 Identify nominated test from SOPs 3.2 Set up radiation testing and processing equipment in accordance with manufacturers' specifications
4. Carry out basic radiographic tests	4.1 Identify basic properties of X-rays and gamma rays 4.2 Apply safety practices and controls for minimising radiation exposure 4.3 Operate radiographic testing and safety equipment in accordance with relevant work instructions 4.4 Process films to achieve optimum results

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.

Preparation processes include:	<ul style="list-style-type: none"> • surface cleaning and drying.
Obvious discontinuities include:	<ul style="list-style-type: none"> • observed changes in material homogeneity.

Unit Mapping Information

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Links

The MEM Metal and Engineering Training Package Companion Volume Implementation Guide is available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>