



Australian Government

MEM05064 Establish and maintain a weld record management system

Release: 1

MEM05064 Establish and maintain a weld record management system

Modification History

Release 1. New unit.

Application

This unit of competency was developed for post trade engineering fabrication training and the recognition of skills associated with the establishment and maintenance of a formal weld record management system for an enterprise.

It defines general record keeping skill and knowledge requirements as well as specific welding related skill and knowledge required for the establishment of an enterprise level weld record management system as defined by the unit in conjunction with its prerequisites.

The unit is intended to apply in occupations such as welding supervisor, welding engineer and in other relevant occupations responsible for establishing and maintaining welding record management systems for an enterprise.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Band: B

Unit Weight: 4

Pre-requisite Unit

MEM05061 Apply basic metallurgy principles to welding applications

MEM05078 Apply welding principles

MEM05085 Select welding processes

MEM11011 Undertake manual handling

MEM12023 Perform engineering measurements

MEM12024 Perform computations

MEM13015 Work safely and effectively in manufacturing and engineering

MEM14006 Plan work activities

MEM16006 Organise and communicate information

Plus one or more of the following units and their prerequisites:

MEM05060 Perform welds to code standards using submerged arc welding process

MEM05079 Perform welds to code standards using flux core arc welding process

MEM05080 Perform welds to code standards using gas metal arc welding process

MEM05081 Perform welds to code standards using gas tungsten arc welding process

MEM05082 Perform pipe welds to code standards using manual metal arc welding process

MEM05083 Perform welds to code standards using manual metal arc welding process

MEM05088 Perform welds to code standards using oxy fuel gas welding process

Competency Field

Fabrication

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine weld record management system requirements	1.1 Establish capability requirements of weld record management system in conjunction with relevant stakeholders 1.2 Determine general record keeping requirements including traceability, system access, security and privacy requirements 1.3 Determine scope of welding records and parameters required to be recorded in weld record management system 1.4 Investigate available weld record management system formats and recommend an appropriate format for approval
2. Establish weld record management system	2.1 Establish a codes and standards library 2.2 Establish an identification system for items and individual entries 2.3 Establish procedures for record data entry, approval or verification before entry 2.4 Establish access and security procedures for storing, retrieving, amending, backing up and deleting records
3. Maintain weld record management system	3.1 Monitor welding and fabrication operations to identify any changes required to scope of the welding records management system 3.2 Establish protocols to ensure currency of standards and codes in standards library

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.

Scope of welding record management system includes one or more of the following:	- welding, material, and consumable standards and codes relevant to the organisation - draft and approved Procedure Qualification Records (PQRs) - draft welding procedure specifications - Welding Procedure Specifications (WPS) including pre-qualified WPSs and WPSs for standard welding procedures - job records including customer details, order receipt, order completion, welds required, customer quality specifications including specified standards and codes for the job, - individual weld nonconformities and faults and record of corrective or preventative actions taken - weld mapping traceability records - individual welders' pre-qualifications - other qualifications and certificates held by welders - individuals and/or organisations authorised to approve individual PQR and WPS documents and pre-qualify welders - destructive and non-destructive test (NDT) records. - individual audit and regulatory reports.
Welding parameters include one or more of the following:	- material specification and grade - material preparation requirements - joint details - process type - position - run sequence and pass number - welding process - filler material

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	• material diameter • current • voltage • polarity • wire feed speed • travel speed • pre and post heat input.
Traceability requirements are unique identifiers in the weld records management system to allow identification of one or more of the following:	• jobs • procedure qualification records • welding procedure specifications • welders • weld joints including welder, date welded, process, consumables used, and any tests and fault corrections • NDT and other test reports relevant drawings and plans • other items as specified by the fabricator and/or client.
Weld record management system formats include one or more of the following:	• standard PC program records • PC based specific apps and programs for weld record management systems • cloud based specific apps and programs for weld record management systems • manual filing systems.

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for MEM05064 Establish and maintain a weld record management system

Modification History

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability to:

- review welding operations to identify scope of the weld records management system
- establish rules for unique identifiers to be used in the weld record system
- establish procedures for record data entry, approval or verification before entry
- establish privacy, backup and security procedures for a weld record management system
- make recommendations on the scope and format of a weld record management system for a fabrication enterprise
- establish a library of standards and codes for an enterprise
- monitor and adjust the weld records management system against fabrication and welding operations in an enterprise.

Note: Where a volume and/or frequency is not specified, demonstration must be provided at least once.

Knowledge Evidence

Evidence required to demonstrate the required knowledge for this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include knowledge of:

- welding parameters and processes
- technical drawings and welding symbols
- methods manufacturers use to indicate the specification of materials including base metals, filler metals, gases, fluxes and other welding related consumables
- Australian and international welding related standards and codes and methods to determine their currency
- the relationship between designs in metal fabrication operations including:
 - drawings and customer specifications
 - codes and standards
 - procedure qualification records, and
 - welding procedure specifications
- privacy procedures and regulations
- formats for enterprise welding records systems.

Assessment Conditions

- Assessors must:
 - have vocational competency in establishing and maintaining a weld record management system at least to the level being assessed with relevant industry knowledge and experience
 - satisfy the assessor requirements in the *Standards for Registered Training Organisations 2015* or its replacement and comply with the *National Vocational Education and Training Regulator Act 2011*, its replacement or equivalent legislation covering VET regulation in a non-referring state/territory as the case requires.
- Assessment must occur in a functioning workplace. Where assessment in the workplace would be unsafe, impractical or threatens the environment, assessment must occur in a sufficiently rigorous simulated environment that reflects the circumstances that would be experienced in a functioning workplace. Assessment must cover all aspects of workplace performance, including task skills, task management skills, contingency management skills and job role environment skills.
- Knowledge assessment may be either verbal or written but must adequately reflect the knowledge requirements of the unit in a functioning workplace.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications.
- 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.

Links

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