



# SUMMARY OF PROPOSED CHANGES

## Project: Non-Destructive Testing Skills Project

This document has been developed to provide a detailed summary of changes and why including mapping information to support Registered Training Organisations.





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## Non-Destructive Testing units what’s changed.

## Training package components



## QUALIFICATIONS:

Change to the application to clarify which technical standards are identified, core and specialisation unit codes and titles updated and the elective tables of this qualification.

### Major Changes

**MEM50422 (MEM50424)      Diploma of Engineering – Non-Destructive Testing.**

## UNITS OF COMPETENCY: (18 Revised Units and 5 New Units Developed)

The following information identifies the changes that have been made to each of the affected units, the new unit code has been provided in brackets.

### Major changes.

**MEM24001 (MEM24021)      Perform basic penetrant testing.**

- Application –
  - Unit previously applied to both tradespersons and technicians.
  - Application has been changed to more clearly indicate application to tradespersons and apprentices only.
  - One paragraph has been deleted as content is more appropriate to Performance and Knowledge Evidence.
- Performance Evidence – Removed reference to Standards.
- Knowledge Evidence - New point added on classification of penetrants and viewing characteristics
- Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point.

**MEM24002 (MEM24022)      Perform penetrant testing.**

- Title changed to 'Undertake penetrant tests'.
- Application - Error reference in second paragraph to re-assessment of competency deleted. Industry coverage advice in third paragraph updated. Reference to technical standards updated.
- Prerequisites - MEM16006 and its prerequisite MEM13015 added.
- Elements and Performance Criteria (PC) –
  - PC1.1 edited for clarity and reference to risk assessment deleted as this task is not supported in Performance Evidence (PE) or Knowledge Evidence (KE).
  - PC 5.1 moved to 2.2 re PPE and safe work practices.
  - PC 2.3 edited to recognise that the skill is in determining whether special access requirements are needed rather than presuming they are always required.
  - Performance Criteria 3.1 and 3.2 - minor edits.
  - PC 5.3 moved to PC 3.5 to reflect flow of work.
  - PC 4.1 edited to reflect Working Group advice on wording.
  - PC 4.8 Minor simplification edit
- Range of Conditions (ROC) –
  - WHS regulatory requirements added



- Performance Evidence -
  - New points added to align with international standards
  - Clarification on frequency and volume
  - Removed reference to Standards.
- Knowledge Evidence - knowledge of test limitations added to first point. Eight points edited to make it clear that it applies to the test equipment and materials. Last point deleted as a duplication.
- Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point

**MEM24003 (MEM24023) Perform basic magnetic particle testing.**

- Application - Unit previously applied to both tradespersons and technicians. Application has been changed to more clearly indicate application to tradespersons and apprentices only. One paragraph has been deleted as content is more appropriate to Performance and Knowledge Evidence.
- PC 3.4 - new PC minimising environmental impact of the NDT test
- PC 3.6 - new PC on de-magnetisation of test material
- ROC - Two new rows added. Two rows clarify scope of magnetic media and magnetic particle testing equipment.
- KE - previous 3rd point deleted as it was a duplication”.
- Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point

**MEM24004 Perform magnetic particle testing. (MEM24024 - Undertake magnetic particle tests)**

- Title changed to 'Undertake magnetic particle tests'.
- Application –
  - Error reference in second paragraph to re-assessment of competency deleted.
  - Industry coverage advice in third paragraph updated.
  - Clarification on the cohort of technicians this unit applies to.
  - Reference to technical standards updated.
- Prerequisites - MEM16006 and its prerequisite MEM13015 added.
- Elements and PCs –
  - PC1.1 edited for clarity and reference to risk assessment deleted as this task is not supported in PE or KE.
  - PC 5.1 moved to PC 2.2 re PPE and safe work practices.
  - PC2.3 Changed
  - PC 2.4 edited to recognise that the skill is in determining whether special access requirements are needed rather than presuming they are always required.
  - PC 2.5 Clarification added
  - PC 5.2 moved to PC 3.6 to reflect flow of work.
  - PC 4.2,4.3 and 4.4 Clarified
  - PC 4.7 now PC 3.7. New PC 4.7 added for consistency with technical standards.
  - PC 4.1 edited to reflect Working Group advice on wording.
- ROC –
  - Minor clarification edits to row 1.
- PE - Requirements for number and type of assessment tasks updated to be consistent with technical standards.
- KE – multiple changes to clarify the connection to the international standards.



- Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point.

**MEM24005 (MEM24025) Perform basic eddy current testing.**

- Application – As this unit previously applied to both tradespersons and technicians, the application has been changed to more clearly indicate application to tradespersons and apprentices only. One paragraph has been deleted as content is more appropriate to Performance and Knowledge Evidence. Sentence in 2nd paragraph covering re-assessment of competency has been deleted as it is an error.
- ROC - New row added to clarify the scope of preparation processes.
- KE - Points considered a duplication of other knowledge evidence have been deleted
- Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point.

**MEM24006 Perform eddy current testing. (MEM24026 - Undertake eddy current tests)**

- Title changed to 'Undertake eddy current tests'.
- Application –
  - reference error in second paragraph to re-assessment of competency deleted
  - industry coverage advice in third paragraph updated.
  - reference to technical standards updated.
- Prerequisites - MEM16006 and its prerequisite MEM13015 added.
- Elements and PCs –
  - PC1.1 edited for clarity and reference to risk assessment deleted as this task is not supported in PE or KE.
  - PC 5.1 moved to PC 2.2 re PPE and safe work practices.
  - PC 2.4 edited to recognise that the skill is in determining whether special access requirements are needed rather than presuming they are always required.
  - PC 2.5 Minor edit to remove duplication.
  - PC 3.5 moved from PC 5.2.
  - PC 3.6 added for consistency with technical standards.
  - PC 4.1 edited to reflect Working Group advice on wording.
- ROC –
  - references to technical standards updated.
  - 1 new row added – Test Equipment
- PE - Requirements for number and type of assessment tasks updated to be consistent with technical standards.
- KE – Points reorganised and clarified to better align to new international standards.
- Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point.

**MEM24007 (MEM24027) Perform ultrasonic thickness testing.**



- Application - Unit previously applied to both tradespersons and technicians. Application has been changed to more clearly indicate application to tradespersons and apprentices only. One paragraph has been deleted as content is more appropriate to Performance and Knowledge Evidence.
- PC - New PC 3.3 added to be consistent with knowledge evidence on use of calibration blocks
- ROC - New row added to clarify the scope of ultrasonic equipment used in thickness testing.
- KE - Point considered a duplication deleted. Minor changes made to clarify some terms and additional wording included on discontinuities and abnormalities identified through thickness testing.
- Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point

#### **MEM24008 Perform ultrasonic testing. (MEM24028 - Undertake ultrasonic tests)**

- Title changed to 'Undertake ultrasonic tests'.
- Application –
  - Error reference in second paragraph to re-assessment of competency deleted.
  - Industry coverage advice in third paragraph updated.
  - Reference to technical standards updated.
- Prerequisites - MEM16006 and its prerequisite MEM13015 added.
- Elements and PCs –
  - PC1.1 edited for clarity and reference to risk assessment deleted as this task is not supported in PE or KE.
  - PC 5.1 moved to PC 2.2 re PPE and safe work practices.
  - PC 2.4 edited to recognise that the skill is in determining whether special access requirements are needed rather than presuming they are always required.
  - Reference to standard operating procedures (SOPs) added to PCs 3.2, 3.3, and 3.7.
  - PC 4.1 edited to reflect Working Group advice on wording.
  - PC 4.5 deleted as it duplicates PC 4.4.
- ROC –
  - 2 new rows added
- PE - Requirements for number and type of assessment tasks updated to be consistent with technical standard”.
- KE - Points reorganised and clarified to better align to new international standards
- Assessment Conditions –
  - Wording changed to align with the new title of the unit.
  - Third dot point clarified
  - last dot point removed as it is a duplication of the first dot point.

#### **MEM24009 (MEM24029) Perform basic radiographic testing.**

- Application - Unit previously applied to both tradespersons and technicians. Application has been changed to more clearly indicate application to tradespersons and apprentices only. Reference to knowledge of metallurgy has been deleted as this was intended for technicians and is now not relevant to the revised unit application. References to regulations and standards have been made clearer including regulations covering ionizing radiation.
- Elements and PCs –
  - PC 4.1 deleted as it is better covered as knowledge evidence.
  - New PC 4.1 changed to make explicit skill in minimising radiation exposure applies to self and others.
  - Element 5 and Pcs added in reference to reporting of results.

- ROC - New row added to provide the range of radiographic film covered by the unit.
- KE - Duplication point deleted, and minor clarifications of wording added.
- Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point

**MEM24010 Perform radiographic testing. (MEM24030 - Undertake radiographic tests)**

- Title changed to 'Undertake radiographic tests'.
- Application –
  - Reference error in second paragraph to re-assessment of competency deleted.
  - Industry coverage advice in third paragraph updated.
  - Exclusion statement re digital and computed radiography added.
  - Reference to technical standards updated.
- Prerequisites - MEM16006 and its prerequisite MEM13015 added.
- Elements and PCs –
  - PC1.1 edited for clarity and reference to risk assessment deleted as this task is not supported in PE or KE.
  - PC 1.2 moved to PC 2.2
  - PC 2.4 edited to recognise that the skill is in determining whether special access requirements are needed rather than presuming they are always required.
  - PC 4.8 moved to PC3.6.
  - PC 4.1 edited to reflect Working Group advice on wording.
  - PC 4.8 simplified.
  - Element 6 embedded into other elements
- ROC –
  - Two rows added.
- PE –
  - Requirements for number and type of assessment tasks updated to be consistent with technical standards.
  - Evidence requirements for radiographic safe work practices and controls added as transfer from ROC.
  - 7th point deleted as a duplication of the fifth point.
- KE - Knowledge requirements for radiation safe work practices and controls added. Other minor edits made for clarification.
- Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point.

**MEM24011 Establish non-destructive tests. (MEM24031 - Establish procedures for non-destructive tests)**

- Application - The Application has been edited to remove ambiguity and to make it clear that it is the NDT applications that are being researched and not the test techniques. The sentence in 2nd paragraph covering re-assessment of competency has been deleted as it is an error. The industry application references have been simplified and the references to technical standards updated. An
- Prerequisites –
  - additional pre-requisite MEM30007 'Select common engineering materials' has been added based on requirements in the updated Australian NDT technical standards.
  - five prerequisites removed
  - codes for all prerequisites updated.



- Elements and PCs –
  - Element 1 simplified
  - PC 2.2 has been reworded to be consistent with detail required in PE and KE
  - Element 3 Clarified
  - Element 4 wording has been simplified.
  - PC 4.7 added to be consistent with technical standards requirements.
  - Element 5 reworded to align with other changes.
- ROC - Row added to clarify scope of relevant information from previous and past NDT tests.
- PE - First point amended as the point is covered by the reference to establishing NDT test procedures. Reference to materials analysis added to 3rd point for consistency with technical standards. Other point reworded for clarity.
- KE – Changes made for clarification.
- Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point

#### **MEM24014 Perform thermography tests. (MEM24033 - Undertake thermography tests)**

- Title changed to 'Undertake thermography tests' to be consistent with other NDT technician units.
- Application - Advice on selection of other units updated. Reference to technical standards updated.
- Prerequisites - MEM16006 added as a prerequisite along with its prerequisite of MEM13015.
- Elements and PCs –
  - Element 1 changed to 'Establish..' to be consistent with unit title.
  - PC 1.1 made more specific.
  - PC 1.2 and 1.3 combined and moved to PC 2.2.
  - PC 2.3 edited to recognise that the skill is in determining whether special access requirements are needed rather than presuming they are always required.
  - PC 2.4 'material' changed to inspection area' as this more accurately reflects the task.
  - PC 4.1 added based on Working Group advice.
- ROC – First row removed for duplication.
- KE - KE first sentence edited for additional clarity.
- Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point

#### **MEM24015 Perform digital and computed radiography. (MEM24034 - Undertake digital and computed radiography)**

- Title changed to 'Undertake digital and computed radiography' to be consistent with other NDT technician units.
- Application - Minor edits to clarify industry application. Advice on selection of other units updated. Reference to technical standards updated.
- Prerequisites - MEM11011 and MEM18001 deleted. Code for MEM13018 corrected.
- Elements and PCs –
  - Element 1 changed to 'Establish..' to be consistent with unit title.
  - PC 1.1 made more specific.
  - PC 1.2 and 1.3 combined and moved to PC 2.2.
  - Minor edit to PC 2.3.
  - PC 3.1 edited to recognise that the PC also requires determining whether special access requirements are needed.
  - PC 6.1 added based on Working Group advice.





- ROC - First row deleted for duplication.
- PE - PE has been edited to be consistent with technical standards requirements including more specific PE point on safe work practices for minimising radiation exposure.
- KE - more specific KE point on knowledge of safe work practices and controls for minimising radiation exposure
- Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point.

#### **MEM24016 Perform eddy current array tests. (MEM24035 - Undertake eddy current array tests)**

- Title changed to 'Undertake eddy current array tests' to be consistent with other NDT technician units.
- Application - Minor edits to clarify industry application. Advice on selection of other units updated. Reference to technical standards updated.
- Prerequisites - MEM11011 and MEM18001 deleted. MEM30007 added.
- Elements and PCs –
  - Element 1 changed to 'Establish..' to be consistent with unit title.
  - PC 1.1 made more specific.
  - PC 1.2 and 1.3 combined and moved to PC 2.2.
  - PC 2.3 edited to recognise that the skill is in determining whether special access requirements are needed rather than presuming they are always required.
  - PC 4.1 added based on Working Group advice.
- ROC – First row deleted for duplication.
- PE - PE has been edited to be consistent with technical standards requirements and include volume and frequency requirements.
- KE - First sentence has been edited for additional clarity.
- Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point.

#### **MEM24017 Perform visual testing to non-destructive testing standards. (MEM24036 - Undertake visual testing to non-destructive testing standards)**

- Title changed to 'Undertake visual testing to non-destructive testing standards' to be consistent with other NDT technician units.
- Application - Minor edits to clarify industry application. Advice on selection of other units updated. Reference to technical standards updated.
- Prerequisites - MEM24012 deleted.
- Elements and PCs –
  - Element 1 changed to 'Establish..' to be consistent with unit title.
  - PC 1.1 made more specific.
  - PC 1.2 and 1.3 combined and moved to PC 2.2.
  - PC 2.3 edited to recognise that the skill is in determining whether special access requirements are needed rather than presuming they are always required.
  - PC 2.4 deleted as it duplicated PC 1.1.
  - PC 5.1 edited based on Working Group advice.
- ROC - First row deleted for duplication.
- PE has been edited to be consistent with technical standards requirements.
- Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point.



**MEM24018 Perform advanced ultrasonic testing. (MEM24037 - Undertake advanced ultrasonic testing)**

- Title changed to 'Undertake advanced ultrasonic testing' to be consistent with other NDT technician units.
- Application - Minor edits to clarify industry application. Advice on selection of other units updated. Reference to technical standards updated.
- Prerequisites - MEM11011 and MEM18001 deleted. MEM30007 added.
- Elements and PCs –
  - Element 1 changed to 'Establish..' to be consistent with unit title.
  - PC 1.1 made more specific.
  - PC 1.2 and 1.3 combined and moved to PC 2.2.
  - PC1.5 deleted as a duplication of PC1.1
  - PC 2.3 edited to recognise that the skill is in determining whether special access requirements are needed rather than presuming they are always required.
  - PC 2.4 - added 'inspection areas' for clarity.
  - PC 5.1 added based on Working Group advice.
- ROC - First row deleted for duplication.
- PE has been edited to be consistent with technical standards requirements.
- KE - First sentence has been edited for additional clarity
- Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point.

**MEM24019 (MEM24038) Apply codes and standards to non-destructive testing.**

- Application - Reference to technical standards updated.
- Prerequisites - MEM09229 deleted.
- KE - First sentence has been edited for additional clarity.
- Assessment conditions – Third dot point clarified, and last dot point removed as it is a duplication of the first dot point.

**MEM24020 (MEM24039) Apply materials technology principles to non-destructive tests.**

- Application - Reference to application to Level 2 and 3 technicians deleted as these levels are not related to VET but to the technical standards. The unit is open to all NDT technicians to study. Reference to technical standards updated.
- ROC – Last row removed for duplication

**MEM24040 Undertake basic penetrant tests (new unit)**

This new unit reflects the requirements of the new technical standards.

**MEM24041 Undertake basic magnetic particle tests (new unit)**

This new unit reflects the requirements of the new technical standards.

**MEM24042 Undertake basic eddy current tests (new unit)**

This new unit reflects the requirements of the new technical standards.

**MEM24043 Undertake ultrasonic thickness tests (new unit)**



This new unit reflects the requirements of the new technical standards.

**MEM24044 Undertake basic radiographic tests (new unit)**

This new unit reflects the requirements of the new technical standards.

**Note:** Initial consultation with Technical Committee, recommended the unit (MEM24012 Apply metallurgical Principles) is no longer considered as requiring a revision which was originally part of the project activity i.e. As a result, the unit has been removed as a prerequisite in the NDT revised units.

## Non-Destructive Testing Skills Project – Mapping Information

### Qualification mapping to MEM Release 5.0

Current code	Current title	New code	New title	Component type	Status	E = Equivalent NE = Non-Equivalent
MEM50422	Diploma of Engineering – Non-Destructive Testing	MEM50424	Diploma of Engineering – Non-Destructive Testing	Qual	Revised	E

### Units of Competency mapping to MEM Release 5.0

Current code	Current title	New code	New title	Component type	Status	E = Equivalent NE = Non-Equivalent
MEM24001	Perform basic penetrant testing	MEM24021	Perform basic penetrant testing	UoC	Revised	E
MEM24002	Perform penetrant testing	MEM24022	<b>Undertake penetrant tests</b>	UoC	Revised	E
MEM24003	Perform basic magnetic particle testing	MEM24023	Perform basic magnetic particle testing	UoC	Revised	E
MEM24004	Perform magnetic particle testing	MEM24024	<b>Undertake magnetic particle tests</b>	UoC	Revised	E

MEM24005	Perform basic eddy current testing	MEM24025	Perform basic eddy current testing	UoC	Revised	E
MEM24006	Perform eddy current testing	MEM24026	<b>Undertake eddy current tests</b>	UoC	Revised	E
MEM24007	Perform ultrasonic thickness testing	MEM24027	Perform ultrasonic thickness testing	UoC	Revised	E
MEM24008	Perform ultrasonic testing	MEM24028	<b>Undertake ultrasonic tests</b>	UoC	Revised	E
MEM24009	Perform basic radiographic testing	MEM24029	Perform basic radiographic testing	UoC	Revised	E
MEM24010	Perform radiographic testing	MEM24030	<b>Undertake radiographic tests</b>	UoC	Revised	E
MEM24011	Establish non-destructive tests	MEM24031	<b>Establish procedures for non-destructive tests</b>	UoC	Revised	E
MEM24014	Perform thermography tests	MEM24033	<b>Undertake thermography tests</b>	UoC	Revised	E
MEM24015	Perform digital and computed radiography	MEM24034	<b>Undertake digital and computed radiography</b>	UoC	Revised	E
MEM24016	Perform eddy current array tests	MEM24035	<b>Undertake eddy current array tests</b>	UoC	Revised	E
MEM24017	Perform visual testing to non-destructive testing standards	MEM24036	<b>Undertake visual testing to non-destructive testing standards</b>	UoC	Revised	E
MEM24018	Perform advanced ultrasonic testing	MEM24037	<b>Undertake advanced ultrasonic testing</b>	UoC	Revised	E
MEM24019	Apply codes and standards to non-destructive testing	MEM24038	Apply codes and standards to non-destructive testing	UoC	Revised	E

<b>MEM24020</b>	Apply materials technology principles to non-destructive tests	<b>MEM24039</b>	Apply materials technology principles to non-destructive tests	<u>UoC</u>	<u>Revised</u>	E
		<b>MEM24040</b>	Undertake basic penetrant tests	UoC	New	No equivalent unit
		<b>MEM24041</b>	Undertake basic magnetic particle tests	UoC	New	No equivalent unit
		<b>MEM24042</b>	Undertake basic eddy current tests	UoC	New	No equivalent unit
		<b>MEM24043</b>	Undertake ultrasonic thickness tests	UoC	New	No equivalent unit
		<b>MEM24044</b>	Undertake basic radiographic tests	UoC	New	No equivalent unit



## General Maintenance Updates in the MEM Training Package - What's changed.

### Training package components

#### QUALIFICATIONS:

##### Minor Changes

The following qualifications have had unit codes updated in line with unit code and title changes reflected in the **Non-Destructive Testing Skills Project**.

MEM30119 Certificate III in Engineering - Production Systems

MEM30219 Certificate III in Engineering - Mechanical Trade

MEM30522 Certificate III in Engineering – Technical

MEM40119 Certificate IV in Engineering

- Additionally, points corrected for unit MEM27003 Overhaul engine fuel system components.
- Unit MEM05065 Maintain weld records added to Group B electives.

MEM50119 Diploma of Engineering - Advanced Trade

- Additionally, inclusion of two additional statements added in the qualification to support Registered Training Organisations.
- Units MEM05061, MEM05062, MEM05065, MEM05066 and MEM05068 added in Group A to meet prerequisite requirements.

MEM50222 Diploma of Engineering – Technical

MEM50522 Diploma of Engineering – Materials

MEM60122 Advanced Diploma of Engineering

The unit MSTTX3002 Contribute to textile production process improvements has been deleted from elective table Group A, as the unit is marked as Deleted on the national training register ([training.gov.au](http://training.gov.au)).

MEM31822 Certificate III in Engineering - Textile Mechanic

**Note:** All the qualifications above will have the next release number respectively.

#### SKILL SET:

##### Minor changes

**MEMSS00002 (MEMSS00003) Non-Destructive Testing - Level 2 NDT practitioner**



Description changed to identify the relevant techniques that apply. Unit codes and titles updated in line with changes to the NDT unit codes and titles.

**Note:** The Skill Set will have a new release number and code, equivalent.

## UNITS OF COMPETENCY:

### Minor Changes

Following feedback from stakeholders, the following units of competency were updated as part of maintenance of the MEM training package.

#### **MEM05004 Perform routine oxy fuel gas welding**

- Unit code updated in Application.

#### **MEM05049 Perform routine gas tungsten arc welding**

- Unit code updated in Application.

#### **MEM05050 Perform routine gas metal arc welding**

- Unit code updated in Application.

#### **MEM05052 Apply safe welding practices**

- Unit code updated in Application.

#### **MEM05056 Perform routine flux core arc welding**

- Unit code updated in Application.

#### **MEM05057 Perform routine submerged arc welding**

- Unit code updated in Application.

#### **MEM05063 Write and proof robotic welding system programs**

- Unit code updated in Application.

#### **MEM05069 Undertake advanced weld repair and maintenance**

- Unit title for the unit code MEM05061 corrected in the prerequisites.

#### **MEM05077 Perform welding inspection**

- Unit title for the unit code MEM05061 corrected in the prerequisites.

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





- Unit title for the unit code MEM05061 corrected in the Application. References to manual metal arc welding (MMAW) updated to gas tungsten arc welding (GTAW).

**MEM11010 Operate mobile load shifting equipment**

- Unit code updated in Application.

**MEM11023 Operate a bridge and gantry crane**

- Unit code updated in Application.

**MEM11024 Undertake basic rigging**

- Unit code updated in Application.

**MEM11025 Operate a non-slewing mobile crane of greater than three tonnes capacity**

- Unit code updated in Application.

**MEM15004 Perform inspection**

- Unit code updated in Application.

**MEM18051 Fault find and repair/rectify complex electrical circuits**

- Dual banding removed.

**MEM19018 Repair jewellery items**

- Unit code updated in Application.

**MEM27025 Maintain, diagnose and rectify fluid power controls in mobile equipment**

- Unit title for the unit code MEM27017 corrected in the prerequisites.

**MEM29002 Commission a cyber-physical system**

- Unit title corrected in Assessment Conditions.

**MEM50002 Work safely on marine craft**

- Unit code updated in Application.

**MEM14087 Apply manufactured product design techniques**

- Metadata updated.

**MEM48017 Monitor blast furnace operations**

- Metadata updated.



**MEM234031 Manage installation, commissioning or modification of machines and equipment**

- Metadata updated.

**Note:** All the units of competency will have the next release number respectively.

## Maintenance Updates to MEM Training Package – Mapping Information

### Qualifications mapping to MEM Release 5.0

Current code	Current title	New code	New title	Component type	Status	E = Equivalent NE = Non-Equivalent
<b>MEM30119</b>	Certificate III in Engineering - Production Systems (Release 2)			<u>Qual</u>	<u>Updated - Release 3</u>	E
<b>MEM30219</b>	Certificate III in Engineering - Mechanical Trade (Release 3)			<u>Qual</u>	<u>Updated - Release 4</u>	E
<b>MEM30522</b>	Certificate III in Engineering – Technical (Release 2)			<u>Qual</u>	<u>Updated - Release 3</u>	E
<b>MEM31922</b>	Certificate III in Engineering – Fabrication Trade (Release 1)			<u>Qual</u>	<u>Updated – Release 2</u>	E
<b>MEM40119</b>	Certificate IV in Engineering (Release 2)			<u>Qual</u>	<u>Updated - Release 3</u>	E
<b>MEM50119</b>	Diploma of Engineering - Advanced Trade (Release 2)			<u>Qual</u>	<u>Updated - Release 3</u>	E
<b>MEM50222</b>	Diploma of Engineering – Technical (Release 1)			<u>Qual</u>	<u>Updated - Release 2</u>	E
<b>MEM50522</b>	Diploma of Engineering – Materials (Release 1)			<u>Qual</u>	<u>Updated - Release 2</u>	E
<b>MEM60122</b>	Advanced Diploma of Engineering (Release 1)			<u>Qual</u>	<u>Updated - Release 2</u>	E
<b>MEM31822</b>	Certificate III in Engineering - Textile Mechanic (Release 1)			<u>Qual</u>	<u>Updated - Release 2</u>	E

## Skill Set mapping to MEM Release 5.0

Current code	Current title	New code	New title	Component type	Status	E = Equivalent NE = Non-Equivalent
MEMSS00002	Non-Destructive Testing - Level 2 NDT practitioner	MEMSS00003	Non-Destructive Testing - Level 2 NDT practitioner	SS	Updated – Release 1	E

## Units of Competency mapping to MEM Release 5.0

Current code	Current title	New code	New title	Component type	Status	E = Equivalent NE = Non-Equivalent
MEM05004	Perform routine oxy fuel gas welding (Release 1)			UoC	Updated - Release 2	E
MEM05049	Perform routine gas tungsten arc welding (Release 1)			UoC	Updated - Release 2	E
MEM05050	Perform routine gas metal arc welding (Release 1)			UoC	Updated - Release 2	E
MEM05052	Apply safe welding practices (Release 1)			UoC	Updated - Release 2	E
MEM05056	Perform routine flux core arc welding (Release 1)			UoC	Updated - Release 2	E

MEM05057	Perform routine submerged arc welding (Release 1)			<u>UoC</u>	<u>Updated - Release 2</u>	E
MEM05063	Write and proof robotic welding system programs (Release 1)			<u>UoC</u>	<u>Updated - Release 2</u>	E
MEM11010	Operate mobile load shifting equipment (Release 1)			<u>UoC</u>	<u>Updated - Release 2</u>	E
MEM11023	Operate a bridge and gantry crane (Release 1)			<u>UoC</u>	<u>Updated - Release 2</u>	E
MEM11024	Undertake basic rigging (Release 1)			<u>UoC</u>	<u>Updated - Release 2</u>	E
MEM11025	Operate a non-slewing mobile crane of greater than three tonnes capacity (Release 1)			<u>UoC</u>	<u>Updated - Release 2</u>	E
MEM15004	Perform inspection (Release 1)			<u>UoC</u>	<u>Updated - Release 2</u>	E
MEM18051	Fault find and repair/rectify complex electrical circuits (Release 1)			<u>UoC</u>	<u>Updated - Release 2</u>	E
MEM19018	Repair jewellery items (Release 1)			<u>UoC</u>	<u>Updated - Release 2</u>	E
MEM50002	Work safely on marine craft (Release 1)			<u>UoC</u>	<u>Updated - Release 2</u>	E
MEM14087	Apply manufactured product design techniques (Release 1)			<u>UoC</u>	<u>Updated - Release 2</u>	E
MEM234031	Manage installation, commissioning or modification of machines and equipment (Release 1)			<u>UoC</u>	<u>Updated - Release 2</u>	E
MEM48017	Monitor blast furnace operations (Release 1)			<u>UoC</u>	<u>Updated - Release 2</u>	E

MEM05069	Undertake advanced weld repair and maintenance (Release 1)			<u>UoC</u>	<u>Updated - Release 2</u>	E
MEM05077	Perform welding inspection (Release 1)			<u>UoC</u>	<u>Updated - Release 2</u>	E
MEM05081	Perform welds to code standards using gas tungsten arc welding process (Release 1)			<u>UoC</u>	<u>Updated - Release 2</u>	E
MEM27025	Maintain, diagnose and rectify fluid power controls in mobile equipment (Release 1)			<u>UoC</u>	<u>Updated - Release 2</u>	E
MEM29002	Commission a cyber-physical system (Release 1)			<u>UoC</u>	<u>Updated - Release 2</u>	E



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