



Australian Government

MEM50005 Refuel vessels

Release: 1

MEM50005 Refuel vessels

Modification History

Release 1. Supersedes and is equivalent to MEM50005B Refuel vessels

Application

This unit of competency defines the skills and knowledge required to refuel recreational vessels and appliances in both land and water environments and relates to workplaces in which vessels are built, repaired, stored, sold and transported.

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

Band: E

Unit Weight: 0

Pre-requisite Unit

MEM13015	Work safely and effectively in manufacturing and engineering
MEM16006	Organise and communicate information
MEM50002	Work safely on marine craft
MEM50003	Follow work procedures to maintain the marine environment

Competency Field

Boating services

Elements and Performance Criteria

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
1	Match fuels and additives to marine applications	1.1	Follow standard operating procedures (SOPs)
		1.2	Comply with work health and safety (WHS) requirements at all times
		1.3	Select and use appropriate personal protective equipment (PPE) in accordance with SOPs

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
		1.4	Select fuels to match the engine or appliance
		1.5	Consider alternative fuel applications
		1.6	Select fuel additives and lubricants based on vessel/appliance use and manufacturer requirements
2	Identify fuel handling risk, precautions and regulatory requirements	2.1	Identify dangers of volatile fuel liquids and vapours
		2.2	Identify precautions for minimising risks associated with volatile liquids in workplace procedures
		2.3	Identify procedures to prevent build up of volatile vapours and gases
		2.4	Identify regulatory requirements for refilling portable fuel containers
3	Identify safety and environmental requirements for fuel refill areas	3.1	Use correct locations for refuelling activities
		3.2	Apply workplace strategies/procedures to limit danger from static electricity and other sources of ignition
		3.3	Identify protection systems that provide physical barriers to minimise accidental collision with fuelling facilities and use to prevent spills entering drains or the water environment
		3.4	Use appropriate ventilation
		3.5	Identify signage for public safety needs and Hazchem requirements
		3.6	Identify emergency stops and shut-off devices and describe activation methods
4	Refill fuel containers	4.1	Refill portable liquid fuel tanks and appliances
		4.2	Refill gas cylinders
		4.3	Refill on-board fuel tanks
		4.4	Check fuel levels for each method of storage
		4.5	Identify emergency procedures for leaks, spills and fire
		4.6	Replace gas cylinders if required

Elements describe the essential outcomes.

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

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| <p>5 Contain and clean up spills</p> | <p>5.1 Identify potential for spills</p> <p>5.2 Follow procedures for notification of spills</p> <p>5.3 Follow workplace procedures to contain spill and minimise any environment or safety dangers</p> <p>5.4 Identify clean up equipment and use</p> |
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Foundation Skills

This section describes those required skills (reading, writing, oral communication and numeracy) that are essential to workplace performance in this unit of competency.

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.

- Fuels include one (1) or more of the following:**
- petrol (gasoline), including premixed two stroke fuel
 - diesel (distillate)
 - kerosene
 - methylated spirits
 - lighter fluid/white spirits
 - liquefied petroleum gas (LPG)

- Appliances include one ((1) or more of the following:**
- stoves
 - refrigerators
 - heaters
 - lights

- Replacement of gas cylinders includes the following:**
- turn off appliances and pilot light
 - vent gas lines in a safe manner after closing gas valves
 - leak test fittings after fitting cylinders
 - refit and adjust bottle restraining devices
 - following emergency procedures for leaks and fire

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PPE includes one (1) or more of the following:

- goggles/face shields
- masks or respirators
- gloves and appropriate clothes/garments

Contain spill includes one (1) or more of the following:

- bunding and drain covers
- chemical dispersal agents
- absorptive materials
- containment booms and portable bunding

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM50005B Refuel vessels

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 MEM50005 Refuel vessels

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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 on at least two (2) occasions and include:

- following work instructions, standard operating procedures (SOPs) and safe work practices
- identifying correct fuel for the application
- identifying correct additives and lubricant for the application
- using appropriate personal protective equipment (PPE)
- sourcing and interpreting Hazchem (or similar) requirements and working safely with fuels and lubricants
- refilling fuel containers and tanks and checking fuel levels using gauges, dipsticks and sight tubes
- refilling and, if required, replacing gas cylinders and carrying out leak test in accordance with procedures
- containing spills using containment and clean up procedures.

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:

- safe work practices and procedures and use of PPE
- different fuels and their applications
- personal and environmental dangers associated with fuels and refuelling/filling
- risk minimisation
- selection of appropriate fire-fighting equipment
- reduction of vapours
- correct handling of gas cylinders, including condition and lifespan
- dealing with spills
- emergency procedures
- regulatory and legislative requirements.

Assessment Conditions

- Assessors must:

- have vocational competency in refuelling vessels 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
- Where possible assessment must occur in operational workplace situations. Where this is not possible or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills
- 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.

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