

Training Package	Metal and Engineering (MEM05)			HSC Requirements and Advice
Title	Follow work procedures to maintain the marine environment			
Unit code	Competency field	Band	Unit weight	HSC Indicative Hours
MEM50003B	Boating services	A	1	10

Unit descriptor	This unit covers conducting work on vessels or equipment without adversely affecting the quality of the marine environment.
Prerequisites	None
Application of the competency	<p>This unit applies to the protection of marine environments when working on or around recreational vessels. It applies to workplaces in which vessels are built, repaired, stored, sold and transported. These workplaces may involve the use of dangerous goods and hazardous materials and may produce noxious waste products.</p> <p>The unit includes skills and knowledge that are particular to protecting a marine environment and are in addition to those normally applied in the workplace. All work and work practices are undertaken to regulatory and legislative requirements.</p>
Related units	For specific coverage of the limitation, capture and disposal of pollutants in the marine environment see Unit MEM50004B (Maintain quality of environment by following marina codes).

Evidence Guide

The evidence guide specifies the evidence required to demonstrate achievement in the unit of competency as a whole. It must be read in conjunction with the unit descriptor, performance criteria, range statement and the assessment guidelines for the Metal and Engineering Training Package.

Overview of assessment requirements	Context of assessment	Interdependent assessment	Method of assessment
A person who demonstrates competency in this unit must be able to conduct work on vessels using sound work practices without adversely affecting the quality of the marine environment.	This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.	This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling associated with a marine environment, or other units requiring the exercise of the skills and knowledge covered by this unit.	Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

Evidence Guide cont/d			HSC Requirements and Advice
Consistency of performance	Required skills	Required knowledge	Key Terms and Concepts
Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.	Look for evidence that confirms skills in: <ul style="list-style-type: none"> • locating and interpreting relevant workplace procedures • assessing work activities that may impact on the environment • correct use and handling of materials such as fuels, oils, protective coatings, cleaning products • identifying sources of potential pollution • minimising risks of pollution • containing pollution. 	Look for evidence that confirms knowledge of: <ul style="list-style-type: none"> • identification of pollutants • procedures to minimise risk of pollution • procedures for containment of pollution • overview of applicable environmental legislation. 	<ul style="list-style-type: none"> • assessment of workplace and work activities • consequences of poor environmental planning • disposal of hazardous and non-hazardous materials • drains and interceptors • dust control • emergency equipment • emergency plans and procedures • environment management plan/policy • environmental hazards/threats • environmental legislation and codes of practice • equipment, practices and strategies to minimise environmental impact/damage • housekeeping duties and procedures • marine environment • noise suppression procedures • occupational health and safety (OHS) • pollutants • recycling • reporting of equipment faults • safe work practices and procedures • safety/lockout tagging • spill clean-up procedures • spill kits • standard operating procedures (SOP) • waste containment measures • waste storage, collection and disposal • work instructions and procedures • workplace documentation.

Elements	Performance criteria	Range Statement	HSC Requirements and Advice
1 Identify from work procedures and personal observation activities that may impact on the environment	<p>1.1 Workplace environment and health and safety procedures are located and used to identify approved work procedures.</p> <p>1.2 Workplace is observed noting location of drains and interceptors; banded work and storage areas; recyclable, solid and hazardous waste storage; emergency equipment and spill kits; areas where work may impact on the environment; and equipment and practices used to minimise environmental damage and legally dispose of waste.</p>	<p>The range statement provides information about the context in which the unit of competency is carried out. The variables [in bold] and scope [dot points] cater for different work requirements, work practices and knowledge between States, Territories and the Commonwealth, and between organisations and workplaces. The range statement relates to the unit as a whole and provides a focus for assessment. Text in italics in the performance criteria is explained here.</p> <p>The following variables may be present and <i>may include</i>, but are not limited to, the examples listed under the scope. All work is undertaken to relevant legislative requirements, where applicable.</p>	<p>Learning experiences for the HSC must address:</p> <p>A basic awareness of environmental legislation and codes of practice applicable to the marine environment.</p> <p>A range of sources for work instructions and procedures including:</p> <ul style="list-style-type: none"> • work schedules • job card/sheet/plans/specifications • standard operating procedures (SOP) • standard operation sheets • Material Safety Data Sheets (MSDS) • diagrams/sketches • regulations/legislation • manufacturer/workplace guidelines, policies and procedures • Australian Standards. <p>Identification and assessment of work activities that may impact on the environment.</p> <p>Identification of potential pollutants and their source in a range of workplaces including where recreational vessels are:</p> <ul style="list-style-type: none"> • built • repaired • stored • berthed • sold • transported • sailed/operated. <p>An awareness of safe work practices and standard operating procedures (SOP) for work activities.</p> <p>A basic knowledge of a business/organisation environment management plan/policy.</p>
2 Complete assigned housekeeping duties	2.1 Assigned <i>housekeeping duties</i> are completed following workplace procedures ensuring that waste is	<p>Housekeeping duties</p> <ul style="list-style-type: none"> • relevant housekeeping duties include: <ul style="list-style-type: none"> - covering/protecting surfaces prior to 	<p>Learning experiences for the HSC must address:</p> <p>Housekeeping procedures with due consideration to</p>

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	<p>correctly removed to appropriate location; any damaged equipment is tagged for maintenance and notified to appropriate personnel; and schedules and records for housekeeping duties are maintained.</p> <p>2.2 Housekeeping duties are carried out following workplace approved safe work practices and procedures.</p>	<p>starting work</p> <ul style="list-style-type: none"> - returning materials and equipment to appropriate storage - sweeping and cleaning - containment and mopping of spills - appropriate disposal/discharge of waste products. 	<p>the environment and occupational health and safety (OHS).</p> <p>An awareness of housekeeping procedures including:</p> <ul style="list-style-type: none"> • maintenance and storage of tools and equipment • removal and disposal of non-reusable materials in a responsible manner <ul style="list-style-type: none"> - work materials - waste products - chemicals • safe storage of reusable materials in accordance with company policy • containment of loose materials on site (such as dust, litter and waste material) • control of run-off/spills • clean-up of work site. <p>Environmental requirements for dealing with waste including:</p> <ul style="list-style-type: none"> • recycling <ul style="list-style-type: none"> - paper-based products - plastic - worn components - metal components • approved disposal of <ul style="list-style-type: none"> - hazardous material - non-hazardous material. <p>Reporting of equipment faults including:</p> <ul style="list-style-type: none"> • verbal notification to appropriate personnel • recording on job card/maintenance log • safety/lockout tagging where appropriate. <p>Reasons for safety/lockout tagging including:</p> <ul style="list-style-type: none"> • ease of identification • evidence of serviceability • preventing use until repaired. <p>A range of cleaning techniques including:</p> <ul style="list-style-type: none"> • wiping • washing • brushing • sweeping • use of chemical agents (chemicals, solvents & detergents).

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3 Follow spill clean-up procedures	3.1 Source of spill is identified and stopped if possible and notification is made to appropriate personnel. 3.2 Appropriate materials are identified to contain spills including booms, portable bunding, absorbent materials and drain blocks. 3.3 Spills are cleaned up following workplace procedures. 3.4 Waste is disposed of in appropriate locations and containers.		<p>Learning experiences for the HSC must address:</p> <p>Site-specific emergency plans and procedures.</p> <p>Reporting procedures including:</p> <ul style="list-style-type: none"> • verbal/non-verbal • formal/informal. <p>Spill procedures including:</p> <ul style="list-style-type: none"> • use of personal protective equipment (PPE) • isolation of the spill • containment of the spill • identification of the material • decontamination of the spill • notification of appropriate authorities <ul style="list-style-type: none"> - NSW Department of Environment and Conservation [incorporating Environment Protection Authority (EPA)] - emergency services • clean up and disposal of the spill in an approved manner • procedures set out by MSDS • first aid if necessary.
4 Assist the business to maintain the quality of the environment	4.1 Business environment policy is followed.		<p>Learning experiences for the HSC must address:</p> <p>A basic awareness of consequences of poor environmental planning for the following:</p> <ul style="list-style-type: none"> • waterways • marine habitats • neighbouring properties. <p>Environmental hazards/threats including:</p> <ul style="list-style-type: none"> • chemical/gas spillage/leakage • faulty tools, equipment and machinery • fire • marine life habitat destruction • discharge into waterways • pollution. <p>Strategies for minimisation of potential negative environmental impacts including:</p> <ul style="list-style-type: none"> - environmental hazard identification and risk

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			<p>minimisation and reporting</p> <ul style="list-style-type: none"> • minimisation strategies <ul style="list-style-type: none"> - regular maintenance of machinery and equipment - use of biodegradable/non-toxic materials - silt control - habitat protection • waste minimisation <ul style="list-style-type: none"> - accurate measurements and calculations - recycling - using recyclable products - resource efficiency • improvement strategies • environmental monitoring • emergency procedures. <p>A basic awareness of the roles and responsibilities of:</p> <ul style="list-style-type: none"> • the NSW Department of Environment and Conservation [incorporating Environment Protection Authority (EPA)] • local government.
	4.2 Excessive idling and revving of engines is avoided.		
	4.3 Noisy activities are located away from neighbours where possible.		
	4.4 Noise suppression procedures are used where available.		<p>Learning experiences for the HSC must address:</p> <p>General features, benefits, limitations and working knowledge of a range of noise suppression procedures.</p>
	4.5 Dust control and waste containment measures are used.		<p>Learning experiences for the HSC must address:</p> <p>A basic awareness of regulations, codes of practice and company/organisation requirements for dust control/suppression and waste containment.</p> <p>A knowledge of dust and waste suppression/prevention/control techniques including:</p> <ul style="list-style-type: none"> • wetting down • using covers

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			<ul style="list-style-type: none"> • hessian sheeting • sealing into bags • good housekeeping procedures • vacuum cleaners • exhaust fans • floatation containment devices.
	4.6 Waste is appropriately collected and disposed.		