

**SKILLS FRAMEWORK FOR SEA TRANSPORT  
TECHNICAL SKILLS AND COMPETENCIES (TSC) REFERENCE**

<b>TSC Category</b>	Marine Engineering					
<b>TSC</b>	Engineering Safety Standards Interpretation					
<b>TSC Description</b>	Design and implement appropriate safety and safeguarding engineering solutions standards in accordance with legislative requirements and industry best practices					
<b>TSC Proficiency Description</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4</b>	<b>Level 5</b>	<b>Level 6</b>
			<b>STP-EPM-3017-1.1-1</b>	<b>STP-EPM-4017-1.1-1</b>	<b>STP-EPM-5017-1.1-1</b>	
			Interpret engineering safety and safeguarding standards to conduct safety reviews and implement safety controls for equipment, components and systems	Analyse engineering safety and safeguarding standards to supervise the selection of the most relevant and appropriate standards for complex engineering projects and continuous improvement projects	Validate safety and safeguarding engineering solutions in accordance with legislative requirements and industry best practices	
<b>Knowledge</b>			<ul style="list-style-type: none"> <li>• Engineering safety standards principles and practices</li> <li>• Design engineering safeguarding principles and practices</li> <li>• Principles of failure mode and effects analysis (FMEA)</li> <li>• Safety engineering codes and standards</li> <li>• Maritime statutory codes and regulations</li> </ul>	<ul style="list-style-type: none"> <li>• Engineering safety standards principles and practices</li> <li>• Design engineering safeguarding principles and practices</li> <li>• Quantitative and qualitative analysis techniques</li> </ul>	<ul style="list-style-type: none"> <li>• Local and international maritime engineering safety standards and codes</li> <li>• Equipment safety certification standards</li> <li>• Safety and reliability including problematic risk assessment methods</li> <li>• Design engineering preventive techniques</li> <li>• Equipment redundancy and backup techniques</li> </ul>	
<b>Abilities</b>			<ul style="list-style-type: none"> <li>• Interpret maritime engineering safety and safeguarding standards</li> <li>• Implement engineering safety standards for existing ship systems and equipment</li> <li>• Implement safety and safeguarding engineering solutions for ships</li> <li>• Apply industry, international, and organisational</li> </ul>	<ul style="list-style-type: none"> <li>• Analyse and select relevant and appropriate maritime engineering safety and safeguarding standards and codes to meet project objectives</li> <li>• Identify possible conflicts of standards and recommend solutions</li> <li>• Recommend safety and safeguarding engineering solutions</li> </ul>	<ul style="list-style-type: none"> <li>• Validate the implementation of safety and safeguarding standards in accordance with local and international legislative requirements and industry best practices</li> <li>• Deploy advanced techniques and modelling techniques for ship safety reviews</li> <li>• Evaluate the effectiveness and</li> </ul>	

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			<p>engineering safety standards and codes</p> <ul style="list-style-type: none"> <li>• Conduct safety reviews for shipping equipment, components and systems</li> </ul>	<ul style="list-style-type: none"> <li>• Conduct safety reviews for shipping equipment, components and systems</li> </ul>	<p>reliability of ship safety control and safeguarding systems</p> <ul style="list-style-type: none"> <li>• Evaluate preventive techniques and practices for shipping systems and equipment</li> <li>• Drive continuous improvement teams in ship design and implementation of engineering safety improvements</li> </ul>	
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