

**SKILLS FRAMEWORK FOR SEA TRANSPORT  
SKILLS MAP – SENIOR PLAN APPROVAL ENGINEER**

<b>Sector</b>	Sea Transport			
<b>Track</b>	Maritime Services			
<b>Sub-track</b>	Technical Services			
<b>Occupation</b>	Plan Approval Engineer			
<b>Job Role</b>	<b>Senior Plan Approval Engineer</b>			
<b>Job Role Description</b>	<p>The Senior Plan Approval Engineer conducts reviews of drawings for vessel construction and ensures their compliance with statutory regulations and class requirements, including International Maritime Organisation (IMO) regulations, the International Convention for the Safety of Life at Sea (SOLAS) and International Convention for the Prevention of Pollution from Ships (MARPOL). He/She collaborates with stakeholders to ensure contractual requirements are met, and provides technical advice regarding the processes of ship design, construction, and compliance-related matters.</p> <p>He is proficient in applying established plan approval standards according to international regulations. He has rich industry experience and is adept at solving complex issues.</p>			
<b>Critical Work Functions, Key Tasks and Performance Expectations</b>	<b>Critical Work Functions</b>	<b>Key Tasks</b>	<b>Performance Expectations (For legislated / regulated occupations)</b>	
	Manage plan approval processes	Evaluate the feasibility of leveraging on new technology to support plan approval documentation processes	In accordance to: <ul style="list-style-type: none"> <li>International Maritime Organisation (IMO) regulations</li> <li>The International Convention for the Safety of Life at Sea (SOLAS)</li> <li>International Convention for the Prevention of Pollution from Ships (MARPOL)</li> </ul>	
		Develop updated classification standards on plan approval for publication		
	Review vessel design documentation	Review technical drawings, documentation and other essential plans to ensure all requirements are met		
		Review software analyses of structure, stability, tonnage, load verification and other key aspects of vessel design and construction		
		Manage materials and equipment certification review processes		
	Refine design plans	Resolve escalated technical issues from shipyards, ship owners and other stakeholders		
Approve changes and improvements to be made to design plans				
Manage engagement activities with designers, ship builders, ship yards and other key stakeholders for approval and implementation of design plans				
Approve ship plans following modifications and repairs				
<b>Skills and Competencies</b>	<b>Technical Skills and Competencies</b>		<b>Generic Skills and Competencies (Top 5)</b>	
	3D Modelling	Level 4	Resource Management	Intermediate
	Business Negotiation	Level 4	Computational Thinking	Intermediate
	Cyber Security	Level 3	Communication	Intermediate
	Electrical Design Approval	Level 3	Decision Making	Intermediate
	Engineering Drawing Interpretation and Management	Level 4	Digital Literacy	Intermediate
	Engineering Safety Standards Interpretation	Level 4		
	Marine Design Customisation	Level 4		
	Marine Equipment Material Selection	Level 4		
	Naval Architecture Calculations	Level 4		
	Organisational Strategy and Policy Realisation	Level 4		
	Quality Assurance	Level 4		
	Regulatory Compliance	Level 4		
	Service Excellence	Level 4		
	Solution Design Thinking	Level 4		
Stakeholder Management	Level 4			
Technology Integration	Level 3			
<b>Programme Listing</b>	For a list of Training Programmes available for the Sea Transport sector, please visit: <a href="http://www.skillsfuture.sg/skills-framework/sea-transport">www.skillsfuture.sg/skills-framework/sea-transport</a>			

The information contained in this document serves as a guide.