SKILLS FRAMEWORK FOR SEA TRANSPORT
SKILLS MAP – PLAN APPROVAL ENGINEER

Sector	Sea Transport
Track	Maritime Services
Sub-track	Technical Services
Occupation	Plan Approval Engineer
Job Role	**Plan Approval Engineer**
Job Role Description	The Plan Approval Engineer assists with the review of vessel design and inspects drawings and documentation to ensure that ship owners' and safety requirements are met for vessel construction. He/She supports collaborations with stakeholders to ensure contractual requirements are met. He participates in meetings with shipyard planners regarding the processes of ship design, construction, and compliance related matters, with reference to 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 works well under limited supervision and applies subject knowledge to solve routine vessel design issues faced by internal and external stakeholders.

	Critical Work Functions	Key Tasks	Performance Expectations (For legislated / regulated occupations)
Critical Work Functions, Key Tasks and Performance Expectations	Manage plan approval processes	Identify new technologies to improve plan approval documentation processes	In accordance to: • International Maritime Organisation (IMO) regulations • The International Convention for the Safety of Life at Sea (SOLAS) • International Convention for the Prevention of Pollution from Ships (MARPOL)
		Support the development of updated classification standards on plan approvals based on evolving technical requirements	
	Review vessel design documentation	Analyse technical drawings, documentation and other essential plans sent for approval to ensure ship owners' requirements are met	
		Analyse structure, stability, tonnage load verification and other key aspects of vessel design and construction through the use of software	
		Appraise the certifications of materials and equipment used	
	Refine design plans	Resolve technical issues and escalate difficult issues from shipyards, ship owners and other stakeholders for resolution	
		Recommend changes and improvements to design plans based on statutory regulations, class requirements and owner requirements	
		Support collaboration between designers, ship builders, ship yards and other key stakeholders for approval and implementation of design plans	
		Assess ship plans following modification or repairs	

	Technical Skills and Competencies		Generic Skills and Competencies (Top 5)	
Skills and Competencies	3D Modelling	Level 3	Computational Thinking	Basic
	Cyber Security	Level 3	Sense Making	Basic
	Electrical Design Approval	Level 2	Problem Solving	Basic
	Engineering Drawing Interpretation and Management	Level 3	Communication	Basic
	Engineering Safety Standards Interpretation	Level 3	Teamwork	Basic
	Marine Design Customisation	Level 3		
	Marine Equipment Material Selection	Level 3		
	Naval Architecture Calculations	Level 3		
	Quality Assurance	Level 3		
	Regulatory Compliance	Level 3		
	Service Excellence	Level 3		
	Solution Design Thinking	Level 3		
	Stakeholder Management	Level 3		
	Technology Integration	Level 2		

Programme Listing	For a list of Training Programmes available for the Sea Transport sector, please visit: wwww.skillsfuture.sg/skills-framework/sea-transport

The information contained in this document serves as a guide.