

SKILLS FRAMEWORK FOR MARINE AND OFFSHORE
TECHNICAL SKILLS & COMPETENCIES (TSC) REFERENCE DOCUMENT

TSC Category	Marine Engineering					
TSC	Ship Seaworthiness and Pollution Prevention					
TSC Description	Ensure ship stability and compliance to pollution-prevention measures					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
		STP-MEG-2005-1.2	STP-MEG-3005-1.2	STP-MEG-4005-1.1		
		Ensure compliance with pollution-prevention requirements	Maintain seaworthiness of ship and ensure compliance with pollution-prevention requirements	Control trim, stability and stress and monitor and control compliance with legislative requirements while at sea		
Knowledge		<ul style="list-style-type: none"> • Precautions to be taken to prevent pollution of marine environment • Anti-pollution procedures and associated equipment • Pro-active measures to protect the marine environment • International Convention on Load Lines, 1966 (as amended) • International Convention for the Safety of Life at Sea, 1974 (as amended) • International Convention for the Prevention of Pollution from Ships (as amended) • Types of marine fuel 	<ul style="list-style-type: none"> • Ship stability, trim and stress tables, diagrams and stress-calculating equipment • Fundamentals of watertight integrity • Fundamental actions to be taken in the event of partial loss of intact buoyancy • Knowledge of principal structural members of a ship • Precautions to be taken to prevent pollution of marine environment • Anti-pollution procedures and associated equipment • Pro-active measures to protect the marine environment • International Maritime Organisation (IMO) intact stability criteria • International Convention on Load Lines, 1966 (as amended) • International Convention for the Safety of Life at Sea, 1974 (as amended) 	<ul style="list-style-type: none"> • Fundamental principles of ship construction • Theories and factors affecting trim and stability • Measures necessary to preserve trim and stability • Effect of trim and stability of a ship in the event of damage to, and consequent flooding of, a compartment • Measures to be taken when trim and stability of a ship are affected • International maritime Organisation (IMO) recommendations on ship stability • Certificates and other documents to be carried on board ships • International Convention on Load Lines • International Convention for the Safety of Life at Sea • International Convention for the Prevention of Pollution from Ships 		

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			<ul style="list-style-type: none"> • Methods to handle new fuel types to prevent pollution of marine environment 	<ul style="list-style-type: none"> • Methods and aids to prevent pollution of environment by ships 		
Abilities		<ul style="list-style-type: none"> • Observe procedures to safeguard the marine environment • Monitor shipboard operations • Ensure compliance with pollution-prevention requirements 	<ul style="list-style-type: none"> • Ensure stability conditions comply with the IMO intact stability criteria under all conditions • Take action to ensure and maintain the watertight integrity of the ship • Monitor shipboard operations and ensure compliance with MARPOL requirements • Take actions to comply to pollution prevention measures 	<ul style="list-style-type: none"> • Maintain stability and stress conditions within safety limits at all times • Identify potential non-compliance with legislative requirements and take immediate action • Ensure continued validity of survey items and equipment 		