

**SKILLS FRAMEWORK FOR MARINE AND OFFSHORE  
SKILLS MAP - QUALITY ASSURANCE/QUALITY CONTROL ENGINEER**

<b>Sector</b>	Marine and Offshore		
<b>Track</b>	Production Engineering		
<b>Occupation</b>	Quality Engineer		
<b>Job Role</b>	<b>Quality Assurance/Quality Control Engineer</b>		
<b>Job Role Description</b>	<p>The Quality Assurance/Quality Control Engineer is responsible for inspections and technical testing activities that measure, monitor, and improve quality compliance with the organisation's quality policies and external regulations and standards. He/She further acts as a representative for the organisation before the classification societies.</p> <p>The Quality Assurance/Quality Control Engineer's duties require him to work outdoors on the shop floors, within dry docks and on-board ships to support quality inspections and enforcement, and he must possess a level of physical fitness appropriate to the job requirements. He should be meticulous in nature to identify potential quality concerns across the organisation's operations.</p>		
<b>Critical Work Functions and Key Tasks</b>	<b>Critical Work Functions</b>	<b>Key Tasks</b>	<b>Performance Expectations (For legislated / regulated occupations)</b>
	Deploy quality assurance and quality control (QA/QC) policies, processes and procedures	Implement standard operating procedures (SOPs) across organisational departments	In accordance with: • Classification Society regulations; • Workplace Safety and Health (WSH) Act
		Allocate quality activities, roles and responsibilities according to functional requirements and individual competencies	
		Ensure departments are operating in alignment with organisation's quality policies	
		Supervise work activities of team members to meet quality requirements	
	Initiate external compliance audits	Conduct internal QMS audit on documentation and reporting of quality-related information	
		Audit other departments' processes, SOPs and work areas for QA compliance	
		Audit vendors' compliance to organisation's and regulatory quality standards	
		Perform due diligence on vendor quality to advise on contract renewals and terminations and new vendor selection	
	Coordinate testing and commissioning	Plan regular internal inspections in accordance with relevant procedures	
		Ensure proper management of equipment and system qualification and validation	
		Execute required tests and inspections in accordance with inspection and test plans (ITPs)	
		Classify identified faults and prioritise corrective measures based on criticality of issues	
		Coordinate testing and commissioning work by team members and other departments	
		Coordinate classification societies' and owners' attendance at relevant inspections	
	Improve QA/QC performance	Facilitate continuous improvement of production quality by implementing corrective and preventative actions (CAPA) plans	
		Use quality monitoring data management systems to compile and track performance	
		Analyse quality assessment reports to identify gaps and improvements	
		Conduct transaction monitoring against quality criteria covering in-process quality oversights	
		Monitor potential hazards and safety risks in order to implement control measures and preventative actions	
Collaborate with the Procurement and Engineering departments to analyse the root cause of quality issues and implement quality improvement measures			
Implement both short and long-term quality solutions in alignment with quality frameworks, policies and requirements			
Documentation and reporting		Escalate complex issues in improving work products and/or services quality to team members	
	Maintain up-to-date master lists and proper control of all released quality management system (QMS) documents		

	Ensure documents and record-keeping are in compliance with quality procedures for internal and external audits			
	Ensure quality documents related to the project are maintained regularly			
	Generate test and audit reports and present results to team members			
<b>Skills &amp; Competencies</b>	<b>Technical Skills and Competencies</b>		<b>Generic Skills and Competencies (Top 5)</b>	
	Big Data Analytics	Level 4	Problem Solving	Intermediate
	Business Presentation Delivery	Level 3	Resource Management	Intermediate
	Change Management	Level 3	Leadership	Intermediate
	Commissioning Coordination	Level 3	Interpersonal Skills	Intermediate
	Continuous Quality Improvement	Level 3	Decision Making	Intermediate
	Electrical Testing	Level 3		
	Emergency Response Management	Level 2		
	Manufacturing Workflow Management	Level 4		
	Marine Engineering Calculations	Level 3		
	Material Inspection	Level 3		
	Naval Architecture Calculations	Level 4		
	Non-destructive Testing	Level 4		
	Programme Management	Level 3		
	Quality Engineering Integration	Level 3		
	Quality Systems Management	Level 3		
	Service Excellence	Level 3		
	Stakeholder Management	Level 3		
	Structural Testing	Level 3		
	Technical Inspection	Level 3		
Technical Writing	Level 3			
Value Engineering	Level 3			
WSH Culture Development	Level 2			
WSH Performance Management	Level 2			
<b>Programme Listing</b>	For a list of Training Programmes available for the Marine and Offshore sector, please visit: <a href="http://www.skillsfuture.sg/skills-framework/marineandoffshore">www.skillsfuture.sg/skills-framework/marineandoffshore</a>			

The information contained in this document serves as a guide.