

Annexure — VI

Job Description Form

BASIC INFORMATION			
Role Title:	Quality Engineer- General knowledge of Ship Building & QA/QC Documentation	Business :	Parli Facility
Department:	QA/QC	Age:	
Grade:	M1	Designation:	Sr. Engineer /Engineer

Qualifications	
Educational :	Diploma/ B. Tech. in Mechanical Engineering
Professional :	Relevant certifications

ORGANIZATIONAL RELATIONSHIPS		
Reporting Matrix:	Reporting:	Site In charge
Roles Reporting to this position:	Direct Reporting:	Site In charge
	Indirect Reporting:	Plant Head

ROLE
<p>1. General Knowledge of Shipbuilding Construction & Fabrication</p> <ul style="list-style-type: none"> • Shipbuilding Stages: Understanding the various stages of shipbuilding, including: <ul style="list-style-type: none"> ○ Design: Reviewing design plans and ensuring they comply with relevant standards. ○ Material Procurement: Ensuring the quality of materials like steel, alloys, and composites meet required standards. ○ Fabrication: Overseeing processes like cutting, welding, and assembly. This includes knowledge of welding techniques, tolerances, and fit-ups. ○ Assembly: Coordinating the assembly of sections, ensuring they meet the specified design tolerances. ○ Outfitting: Ensuring quality standards in the installation of mechanical, electrical, and plumbing systems. • Welding and Fabrication: Familiarity with common welding processes such as MIG, TIG, and stick welding, as well as understanding of quality control measures for welded joints. • Material Testing: Ensuring that materials meet required specifications through tests such as tensile tests, impact tests, and hardness tests. • Structural Integrity: Ensuring that structural elements like hulls, decks, and bulkheads meet strength and

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stability standards.

2. Knowledge of IR Class Rules and Regulations

- **IR Class Rules for Ships:** Understanding the specific rules set by IR Class for ship design, construction, and maintenance. These include:
 - **Hull Strength and Stability:** Knowledge of IR Class standards for the strength of the ship's hull, ensuring it can withstand the pressures of operation.
 - **Machinery and Systems:** Familiarity with regulations on the operation and safety of machinery, electrical, and control systems aboard ships.
 - **Safety Equipment and Fire Prevention:** Ensuring compliance with safety standards for life-saving equipment, firefighting systems, and emergency procedures.
 - **Environmental Standards:** Adherence to pollution control standards, including the management of ballast water, exhaust emissions, and waste disposal, in line with international and IR Class regulations.

3. QA/QC Documentation in Shipbuilding

- **Quality Assurance (QA):** Ensuring that the shipbuilding process follows established standards and procedures to achieve the desired outcomes. This includes:
 - **Developing Quality Plans:** Creating detailed plans that outline the quality requirements at each stage of construction.
- **Quality Control (QC):** Ensuring that the shipbuilding outputs meet the required quality standards through inspections, testing, and monitoring. Key QC responsibilities include:
 - **Inspection Plans:** Developing plans for inspection, testing, and validation of materials, welding, fabrication, and final assembly.
 - **Non-Destructive Testing (NDT):** Overseeing and reviewing the results of NDT methods like ultrasonic testing, radiographic testing, and visual inspection for detecting defects or irregularities.
 - **Material Certification:** Ensuring all materials used in construction are certified and comply with IR Class standards and industry best practices.
 - **Control of Non-Conformances (NCRs):** Managing non-conformance reports (NCRs), investigating the root causes of deviations from specifications, and overseeing corrective actions.

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MEASURES

- Quality efficiency and output levels
- Quality metrics (e.g., defect rates, rework percentages)
- Timeliness in meeting inspection schedules
- Cost management and adherence to budget
- Safety incident rates and compliance
- Employee performance and development

AACOUNTABILITIES

- Achieve and exceed production targets while maintaining high-quality standards.
- Optimize in processes for maximum efficiency and cost-effectiveness.
- Ensure quality activities comply with safety, environmental, and regulatory requirements.
- Prepare and present regular reports & customer inspection report on production performance to senior management.

SKILLS

Behavioural Skills:

- Effective Communication
- Time Management & Prioritization
- Teamwork and Collaboration
- Safety Awareness

Functional Skills:

- Technical Drawing Reading and understanding
- Stage Inspection according to QAP.
- Communication with Stakeholders (Such as Sub-contractor, Planning Dept, Stores, Painting Dept. and Despatch)
- Familiarity with safety and quality standards in manufacturing environments