

**SKILLS FRAMEWORK FOR SEA TRANSPORT
TECHNICAL SKILLS AND COMPETENCIES (TSC) REFERENCE**

TSC Category	Marine Engineering					
TSC	Engineering Drawing Interpretation and Management					
TSC Description	Use engineering drawings, equipment datasheets, vendor equipment engineering drawings and layouts and equipment datasheets to support construction, operations, maintenance and engineering activities					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
			STP-OPR-3026-1.1-1	STP-OPR-4026-1.1-1	STP-OPR-5026-1.1-1	
			Interpret engineering drawings and documentation describing layout, location, interconnection, design and operational parameters, operating and safety design limits to coordinate construction, operations and maintenance activities	Analyse engineering drawings and documentation describing layout, location, interconnection, design and operational parameters, operating and safety design limits to supervise construction, operations, maintenance and engineering activities and for continuous process improvement related projects	Validate engineering drawings and documentation describing layout, location, interconnection, design and operational parameters, operating and safety design limits to manage construction, operations, maintenance and engineering activities	
Knowledge			<ul style="list-style-type: none"> • International standards and symbols • Detailed assembly drawings • Principles of detailed engineering drawings • Principles of instrumentation diagrams including loop diagrams, connection details, system overviews • Vendor engineering drawings and datasheets • Technical lettering and symbols • Instrument Society of America (ISA) standards 	<ul style="list-style-type: none"> • Document control and management system • Engineering drawings design standards and symbol conventions • Engineering drawings storage and security • Methods in document filing • Methods in maintaining working files 	<ul style="list-style-type: none"> • Methods in managing engineering drawing documents development • Methods of maintaining "As Built" documentation • Methods of evaluating engineering drawing techniques 	

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<p>Abilities</p>			<ul style="list-style-type: none"> • Interpret marine systems and other engineering drawings to support work activities • Interpret datasheets and other technical documentation to support work activities • Use technical engineering drawings and datasheets when collaborating with other engineering departments to support work activities • Apply technical engineering drawings and datasheets during preparation for construction, operations and maintenance activities 	<ul style="list-style-type: none"> • Analyse marine systems and other engineering drawings and documentation to supervise work activities • Implement continuous process improvement related projects • Facilitate the use of technical engineering drawings and datasheets when supervising preparations for construction, operations or maintenance work activities • Supervise correct documentation control, storage and security of drawings and data 	<ul style="list-style-type: none"> • Validate engineering drawings in managing construction, operations and maintenance troubleshooting and fault-finding activities • Manage critical reviews of engineering drawings and designs 	
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