

ANNEXURE - II

**CONTRACTOR NAME & ADDRESS
OUTLINED QUALITY ASSURANCE PLAN (For Reference Purpose only)**

Client : MDL	Title: CASSION GATE	QAP NO:
INSP : Contractor / TPEA	Tender No. :	Date: XX/XX/2020

Sr. No.	Description	Type of Checks	Reference Documents	Acceptance Criteria	Insp by			Remarks
					Contr	TPEA	MDL	
1.0	Review and approval of QAP and Procedures	Review and Approval	Technical Specifications, Drawing	Technical Specifications, Drawing	P	H	H	
2.0	Review and approval of Manufacturing drawings	Review and Approval	Technical Specifications	Technical Specifications	P	R	R	
3.0	Raw Material Inspection							
3.1	Plates	Visual & Dimensional	As per P.O. / MTC	As per PO/MTC	P/R	R	R	In case original / co relatable Mill Test Certificate is available, material will be accepted based on T.C. only. In case material procured from stockiest in absence of Mill TC, material shall be tested by Contractor in NABL accredited laboratory.
		Chemical Composition (One sample per heat)	As Per Standards	As Per Standards	P/R	R	R	
		Mechanical Testing	As Per Standards	As Per Standards	P/R	R	R	
3.2	Pipes, Timber, Ballast(permanent and loose), Anodes	Visual & Dimensional	As per P.O. / MTC	As per PO/MTC	P/R	R	R	
		Chemical Composition (One sample per heat)	As Per Standards	As Per Standards	P/R	R	R	
		Mechanical Testing	As Per Standards	As Per Standards	P/R	R	R	
4.0	Bought Out Inspection							
4.1	Bollard, Valves, Motor, Nuts, Studs, Bolts, Gaskets, Anodes, Rubber seal, Wood, Submersible Pump etc.	Verification of TC Visual & Dimensional Insp	MTC, Drawing	MTC, Drawing	P/R	R	R	Material test certificate shall be provided by the manufacturer. Dimension and Visual inspection by Contractor QA.
4.2	Paints	Verification of TC	Paint Scheme	MTC	P/R	R	R	Material test certificate shall be provided by the manufacturer.

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					Contr	TPEA	MDL	
5.0	Welding							
5.1	WPS and Procedure Qualification Records (PQR) & Welder Performance Qualifications	Review and Qualification	As Per Standards	As Per Standards	P	R	R	Review of earlier approved WPS and PQR shall be done. In absence new shall be qualified by Contractor.
5.2	Welding Electrodes and Consumables	Verification	As Per Standards	As Per Standards	R	R	R	Shall be procured from reputed suppliers with Batch TC.
6.0	Fabrication							
6.1	Fabrication of Subsection	Visual & Dimensional			P	R	R	
6.2	Inspection of Sub-assemblies & Assemblies	Visual & Dimensional	Drawing	Drawing	P	R	R	
6.3	NDT	NDT Check	RT,UT,MPT, VISUAL	RT,UT,MPT, VISUAL	P	H	H	Quantity of NDT to be Mutually agreed between Contractor & MDL.
7.0	Weight Measurement	Verification	Approved Drawings	Approved Drawings	P	R	R	The weight of assembly shall be measured and recorded.
8.0	Visual & Dimensional after final Weld Junction	Visual, Dimensional,	As per Approved drawings	As per Approved drawings	P	R	R	Dimensional Inspection at appropriate stages, sub assembly, final assembly stages shall be carried out.
9.0	Air Pressure Test	Pressure Testing	As per approved drawings/procedure	As per approved drawings/procedure	P	H	H	
10.0	Blasting & Painting	Paint Thickness	Paint Manufacturer TDS	Paint Scheme	P	R	R	
11.0	Permanent Ballast	Visual & Dimensional	As per approved drawings/procedure	As per approved drawings/procedure	P	H	H	

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					Contr	TPEA	MDL	
12.0	Issue of Assembly of Subsection to Section at Dry Dock	Review of Inspection reports, Test Certificates	QAP, Procedures	QAP, Procedures	P	H	H	All RM certificates and bought out item TC's, NDT reports, Dimensional inspection reports, Hydro test reports etc shall be submitted.
13.0	Final Blasting & Painting	Paint Thickness	Paint Manufacturer TDS	Paint Scheme	P	R	R	
14.0	Erection and commission at site of Caisson Gate	Verification	Approved Methodology of Transportation	Approved Methodology of Transportation	P	R	R	Securing to ensure no damage during transit.

Legend: P: Performed By R: Review of Documents W: Witnessed by (Do not hold) H: Hold Point

Notes:

1. Destructive Testing to be done in NABL approved Laboratories
2. NDT to be done by Level -I & evaluated by Level II / III Qualified as per ASNT SNT TC-1-A guidelines
3. Deviations if any will be resolved by Contractor in consultation with MDL.
4. The plan given above is indicative only. Detailed QA Plan should be prepared in the same format and submitted to EY-Design for approval.
5. Contractor has to prepare inspection protocols and attach with QAP for approval.

Rev	Date	Description	Prepared By	Reviewed & Approved By-TPEA	Concurred By – MDL
0	XX/XX/20XX	Tentative QAP for Reference			