

VRISHAL ENGINEERING PRIVATE LIMITED




INSPECTION & TEST PLAN FOR STRUCTURAL FABRICATION & ERECTION

CLIENT : GFCL EV PRODUCTS LIMITED

PROJECT : HH-2700 TPA

LOI NO. : GFL/HH2700/28032025 Dated 28.03.2025

DOCUMENT NO : VEPL/GFCL/HH-2700 TPA/ITP/001

					
1	23-04-2025	GFCL COMMENTS INCORPORATED	SHIVANG DIWAKAR	HARDIK PRAJAPATI	
0	16-04-2025	ISSUED FOR REVIEW & APPROVAL	SHIVANG DIWAKAR	HARDIK PRAJAPATI	
REV	DATE	DESCRIPTION (ISSUE PURPOSE)	PREP'D BY / VEPL	REV'D BY / VEPL	APR'D BY / GFCL



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Sr No	Description/Control Activity	Applicable Documents	Acceptance Criteria	Verification Documentation Format	Inspection Authority			REMARKS
					VEPL	TPIA / TUV	CLEINT / END USER	
1	Pre-Inspection Meeting / Kick-off Meeting	IFC Drawings & Tech specification	IFC Drawings & Tech specification	MOM	P	-	H	
2	DOCUMENT VERIFICATION							
2.1	Availability of IFC drawings	IFC Drawings	Project Specification	Transmital/ List of Drawings	P	R	R	NO WORK SHALL BE STARTED WITHOUT APPROVED IFC DWG.
2.2	WPS & PQR	AWS D1.1	AWS D1.1	WPS/PQR	P	R	A	
2.3	Welder Qualification Certificates	AWS D1.1	AWS D1.1	WQT Certificates	P	W	R	
2.4	Fabrication, Pre-assembly and Erection Procedure, If any	IFC Drawings/ Project Spec.	Project Specification	Procedures	P	R	A	
3	MATERIAL							
3.1	Material Inspection of supplied Raw Materials MTC and Lab Test Report review, Dimensional & Visual checks	IFC Drawings / IRN / MTC	Project Technical Specification	IMIR REPORT VE-DOC-03	P	W	W	
3.2	Verification of welding consumables	Batch Certificates	ASME Sec-II, Div-C	CONSUMABLE TEST CERTIFICATE	P	R	R	
4	FABRICATION							
4.1	FIT-UP							
4.1.1	Marking, Cutting & Gridning of material	IFC Drawings	AWS D1.1 / IS 7215 / PROJECT SPECIFICATION	Fit-up Inspection Report VE-DOC-04	P	S	S	
4.1.2	Fit-up Inspection- Joint Preparation, Mismatch, Alignment, Dimensions, Orientations, etc...	IFC Drawings	AWS D1.1 / IS 7215 / PROJECT SPECIFICATION		P	W	RW	
4.1.3	Provision of temporary supports/ jigs to avoid welding distortion	AWS D1.1	AWS D1.1 / IS 7215 / PROJECT SPECIFICATION	-	P	S	S	
4.2	WELDING							
4.2.1	Selection of WPS and Welding Consumables	WPS	AWS D1.1	Weld Book	P	R	R	
4.2.2	Deployment of Qualified Welder	Master Welder list	AWS D1.1	WQT Records	P	S	S	
4.2.3	Monitoring of Electrode baking and Holding for low hydrogen electrodes	Manufacturer's recommendation	ASME SEC II PARTC	Backing Register VE/QA/FORMAT/53	P	RW	R	



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4.2.4	Control of Process parameters like Preheat, Interpass and Postheat temperatures, Weld size, etc..	WPS	WPS	Spot Check Report VE/QA/FORMAT/41	P	S	S	
4.2.5	Weld Visual Inspection (Deburring of holes, dressing of sharp/corner edge, Weld slag cleaning, Weld bead width)	AWS D1.1	AWS D1.1	Weld Visual Inspection Report VE-DOC-05	P	RW	RW	
4.3	Final Dimensional Check (Only applicable for Shop)	AWS D1.1	AWS D1.1	Final Dimension Report VE-DOC-12	P	RW	RW	
4.4	Surface Preparation of structural assemblies / Surface profile	GFL specification	GFL specification	Surface Preparation & Painting Inspection report VE-DOC-24 / VE-DOC-26 / VE-DOC-28	P	W	RW	Painting scheme : Note 1
4.4.1	Primer Paint DFT	GFL specification	GFL specification		P	W	RW	
4.4.2	MIO Paint DFT	GFL specification	GFL specification		P	W	RW	
4.4.3	Final Paint DFT	GFL specification	GFL specification		P	W	RW	
4.5	Inspection Release - Documentation	Inspection Documents	Inspection Documents	IRN : VE-DOC-29	H	R	R	
5	ERECTION							
5.1	Ensure readiness of civil foundations/ pedestals prior to structure erection. Verification of pedestal dimensions and level. Availability of Civil Foundation Release Note (HOTO)	Drawing/ AWS D1.1	AWS D1.1	Civil Foundation Release Note	H	-	H	
5.2	Identification of structure members and verification of BOP Level, Orientation and Elevation during erection.	Drawing/ AWS D1.1	AWS D1.1/GFL Spec	Alignment Inspection Report VE/QA/FORMAT/31	H	-	RW	

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5.3	Alignment and Verticality of each column segment and tightness of foundation bolts	Drawing/ AWS D1.1	AWS D1.1/GFL Spec	Alignment Inpsction Report VE/QA/FORMAT/31	H	-	H	
5.4	Torque tightening of erection bolts between the structure members	Specification / Drawing	Specification / Drawing	Torquing Inspection Report VE/QA/FORMAT/32	H	-	H	
5.5	Structure release for grouting	Drawing/ AWS D1.1	AWS D1.1/GFL Spec	-	H	-	H	
5.6	Field welding of column splice plates, tie-beam/ bracing supports	WPS	WPS	Site Fit-up / welding Inspection Report VE/QA/FORMAT/34	H	-	RW	
5.7	Structure release for erection of piping and equipments	Drawing/ AWS D1.1	AWS D1.1/GFL Spec	Structural Steel Release Note for Equipment / Piping VE/QA/FORMAT/33	H	-	H	
Abbreviation :								
1	H : Hold : Work shall not proceed without written clearance.							
2	W : 100%Witness : Activity shall be 100% witnessed by CLIENT/TPIA, If CLIENT/TPI is present. If the CLIENT is absent Activity will proceed. CLIENT/TPI shall be given intimation in either writing or verbal. For the Inward material inspection, TPIA / Cleint must be available during unloading of vehicle. If CLEINT / TPI is absent unloading activity will proceed and random 10% memeber will be offered for inspection after the unloading activities.							
3	RW : 10% Random Witness : Activity shall be Randomly witnessed by CLIENT, If CLIENT/TPI is present. If the CLIENT is absent Activity will proceed. CLIENT/TPI shall be given intimation in either writing or verbal.							
4	A : Approval							
5	P : Perform							
6	R / DR : Review / Document Review : Documents shall be reviewed 100%							
7	S : Surveillance : Random Inspection at Site, No signature required on the Inspection Report by TPI/CLIENT.							
Notes:								
1	Surface Preparation standard : SA 2.5 Approved paint brand : Asian / Berger A) Primer (1st Coat) Sigmacover 620 - 150 micron, B) Intermediate (2nd Coat) Sigmacover 620 - 150 micron, C) Finish (3rd Coat) Sigmadur 550 - 50 micron, Color shade shall be Smoke grey (ISC 692) D) Total DFT : 350 Micron minimum							
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