

VRISHAL ENGINEERING PRIVATE LIMITED



INSPECTION & TEST PLAN FOR STRUCTURAL FABRICATION & ERCTION

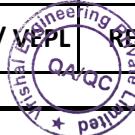
CLIENT : AARTI INDUSTRIES LTD, JHAGADIA, ZONE-4

PROJECT : CORAL-2

PO : 4580584722 Dt.26.02.2025

DOCUMENT NO : VEPL/AI-J/CORAL-2/ITP/004

1	16-04-2025	AIL COMMENTS INCORPORATED	SHIVANG DIWAKAR	HARDIK PRAJAPATI	HARDIK SANDHIYA
0	11-04-2025	ISSUED FOR REVIEW & APPROVAL	SHIVANG DIWAKAR	HARDIK PRAJAPATI	HARDIK SANDHIYA
REV	DATE	DESCRIPTION (ISSUE PURPOSE)	PREP'D BY / VEPL	REV'D BY / VEPL	APR'D BY / AIL



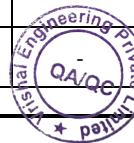


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DOCUMENT NO: VEPL/AI-J/CORAL-2/ITP/004		Revision: 01			Date :- 16-04-2025			
Sr No	Description/Control Activity	Applicable Documents	Acceptance Criteria	Verification Documentation Format	Inspection Authority		REMARKS	
					VE	AIL EXECUTION	AIL-QC/TPI	
1	Pre-Inspection Meeting / Kick-off Meeting	IFC Drawings & Tech specification	IFC Drawings & Tech specification	MOM	P	H	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	AIL-QC/TPI WILL WITNESS FOR NEW PROCEDURE
2.3	Welder Qualification Certificates	AWS D1.1	AWS D1.1	WQT Certificates	P	-	R	
2.4	Fabrication, Pre-assembly and Erection Procedure	IFC Drawings/ Project Spec.	Project Specification	Procedures	P	A	-	
2.5	Availability of Procedures like Fabrication, Erection, NDT, Painting etc, As applicable.	IFC Drawings	Project Specification	Project Specification	P	-	A	
2.6	Verification of calibrartion of Instruments/Equipments	AIL Construction / VE Approved Quality Plan	Valid calibration Certificates / Tags	Calibrartion reports	P	S	R	
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	-	R	
3.2	Verification of welding consumables	Batch Certificates	ASME Sec-II, Div-C	WELDING CONSUMABLE IMIR REPORT VE/QA/FORMAT/02 & BAKING REGISTER	P	-	R	
3.3	Storage of incoming materials, pre-fabricated and fabricated materials. Packing and Preservation	AIL-CS/AMS/PRJ/ QM/ P08 /00 Rev.00 Dtd. 01/12/2020	AIL-CS/AMS/PRJ/ QM/ P08 /00 Rev.00 Dtd. 01/12/2020	Procedure For Material Control - Storage & Seggregation	P	S	S	
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	-	
4.1.2	Fit-up Inspection- Joint Preparation, Mismatch, Alignment, Dimensions, Orientations, etc...	IFC Drawings	AWS D1.1 / IS 7215 / PROJECT SPECIFICATION		P	S	S	
4.1.3	Provision of temporary supports/ jigs to avoid welding distortion	AWS D1.1	AWS D1.1 / IS 7215 / PROJECT SPECIFICATION	-	P	S		





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4.2 WELDING								
4.2.1	Selection of WPS and Welding Consumables	WPS	AWS D1.1	Weld Book	P	-	S	
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	-	S	
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	
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	
4.3	Final Dimensional Check (Only applicable for Shop)	AWS D1.1	AWS D1.1	Final Dimension Report VE-DOC-12	P	-	RW	
4.4	Surface Preparation and painting check of structural assemblies	AIL-CS/AMS/EXP/MEC/COD/PAIT/ C16/00/03 Rev. 03 Dtd. 15-Aug-2023	AIL-CS/AMS/EXP/MEC/COD/PAIT/ C16/00/03 Rev. 03 Dtd. 15-Aug-2023	Surface Preparation & Painting Inspection report VE-DOC-24 / VE-DOC-26 / VE-DOC-28	P	-	RW	
4.5	Inspection Release - Documentation	Inspection Documents	Inspection Documents	IRN : VE-DOC-29	H	R	R	
5 ERECTION								
5.1 Before Erection								
5.1.1	Readiness of civil foundation Release Note before structure erection.	Drawing/ AWS D1.1	Foundation release note which is endorsed by concerned department	AIL/FMT/013	P	H	DR	
5.1.2	Availability of Inspection reports / IRN for fabricated structure at BP Workshop / at Site if Applicable	Release Note	Dossier / Approved GA Drawing	Dossier	P	H	-	





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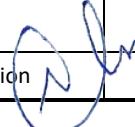
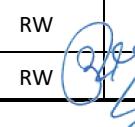
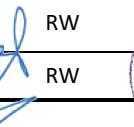
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					Vishal	AIL EXECUTION	AIL-QC/TPI	
5.1.3	Correctness of location, fastner material size, Grade and Qaulity	Approved IFC Drawing	Approved IFC Drawing	AIL/FMT/048	P	H	S	
5.1.4	Orientation of bracings, Columns / Grid Beams etc	Approved IFC Drawing	Approved IFC Drawing	AIL/FMT/048	P	H	S	
5.1.5	Check and ensure the position and mark number of the member	Approved IFC Drawing	Approved IFC Drawing	AIL/FMT/048	P	H	S	
5.1.6	Installation of bolts, nuts, check nuts & tightness of fastners	Approved IFC Drawing	Approved IFC Drawing	AIL/FMT/048	P	H	S	
5.1.7	Modification requirement prior or after installation if any	Approved IFC Drawing	Approved IFC Drawing	AIL/FMT/048	P	H	S	
5.2	After Erection							
5.2.1	Each Structure Member Installation Verification	Approved IFC Drawing	GA and Fabrication Drawing	AIL/FMT/038	H	W	RW 1	
5.2.2	Alignment and Verticality of each column segment and tightness of foundation bolts	Drawing/ AWS D1.1 / IS 12843	AWS D1.1/AIL Spec / IS 12843	AIL/FMT/009	H	RW	S	
5.2.3	Tightening of erection bolts between the structure members / Torque tightening of high tensile bolts (Gr8.8, 10.9)	IS4000 / IS 12843	IS 4000/ Project Spec. / IS 12843	AIL/FMT/046	H	S	S	
5.2.4	Field welding of column splice plates, tie-beam/ bracing supports	EN ISO 1090-2 EXC2/3/4 as the case may be or AWS D1.1 / Indian Standard Structural welding code	EN ISO 1090-2 EXC2/3/4 as the case may be or AWS D1.1 / Indian Standard Structural welding code IS 822	AIL/FMT/003	H	-	RW	
5.2.5	Structure release for grouting	Drawing/ AWS D1.1	IS 269 / Project Specification	AIL/FMT/009	H	W	S	
5.2.6	Handrail & Staircase Installation and verification	Approved IFC Drawing	GA / Project Specification	AIL/FMT/039	H	RW	RW	
5.2.7	Grating Installation Verification	Approved IFC Drawing	GA / Project Specification	AIL/FMT/040	H	RW	RW	
5.2.8	Chequred Plate installation and verification	 Approved IFC Drawing	GA / Project Specification	AIL/FMT/041	H	RW 	RW	
5.2.9	Sag rod installation and verification	 Approved IFC Drawing	GA / Project Specification	AIL/FMT/042	H	RW 	RW	





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5.2.10	GI Purlin installation and verification	Approved IFC Drawing	Approved IFC Drawing	AIL/FMT/043	H	RW	RW	
5.2.11	Roof sheet Installation	Approved IFC Drawing	Approved IFC Drawing	AIL/FMT/044	H	RW	RW	
5.2.12	Equipment Platform structure Installation and verification	Approved IFC Drawing	Approved IFC Drawing	AIL/FMT/045	H	W	W	
5.2.13	Pipe rack bridge structure Installation and verification	Approved IFC Drawing	Approved IFC Drawing	AIL/FMT/047	H	W	W	
6	Paint touch up Inspection (after erection)	AIL-CS/AMS/EXP/MEC/COD/PAIT/C16/00/03 Rev. 03 Dtd. 15-Aug-2023	AIL-CS/AMS/EXP/MEC/COD/PAIT/C16/00/03 Rev. 03 Dtd. 15-Aug-2023	AIL/FMT/057	H	-	S / R	
7	Structure release for erection of piping and equipments	IFC Drawing/ AWS D1.1	Project Specification / AWS D1.1 / IS Codes	AIL/FMT/010	H	H	H	
8	Final Documentation	IFC Drawing	Release Note	Compiled Inspection Dossier	H	H	H	

Abbreviation :

1	H : Hold : Work shall not proceed without written clearance of QC.
2	W : Witness Point : Activity shall be performed in presence of 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.
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.
8	For secondary & tertiary member, Handrails, ladders & loose items, Fitup inspection shall be surveillance for AIL-QC. No fitup document is required.

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