

Attachment-I

Quality Assurance Plan for PEB Warehouses for Temperature Controlled Warehouse for Multi Modal Logistics Hub at Visakhapatnam, Andhra Pradesh

Doc No: VPLPL/MMLH/TCW/PEB/QAP

Owner : Visakhapatnam Port Logistics Park Limited (VPLPL)

Rev: 0

PMC: Aarvee Associates Architects Engineers & Consultants Pvt. Ltd. (Aarvee)

Date: 17/01/2017

Contractor: Passive Infra Projects Pvt. Ltd. (PIP)

Sl. No.	Description	Characteristic	Type of Check	Frequency of Check	Acceptance Norm	Inspection by		Format of Record	Remarks
						PIP	VPLPL/TPIA		
1	Raw Material : As per approved Drg. (Make : SAIL, TATA Steel, IISCO, ESSAR, JINDAL)								
1.1	HR Plate	a)Physical Condition i) Pitting, Rusting,	Visual	100 %	No Pitting, Rusting, Free from Surface defects	W	W (10%)	IIR/MTC	
		ii) Dimension	Measurement	One plate from every heat no.	IS: 1852	W	R	IIR	
		b) Mechanical & Chemical Properties	Verify MTC	MTC 100%	As per material specification mentioned in approved Drg. / IS 2062	R	R	MTC	
1.2	Sheet in Coil or Cut length	a)Physical Condition i) Pitting, rusting	Visual	100 %	No Pitting, Rusting, Free from Surface defects	W	W (10%)	IIR	
		ii) Dimension	Measurement	One plate from every heat no.	IS: 1852	W	R	IIR	
		b)) Mechanical & Chemical Properties	Verify MTC	MTC 100 %	As per material specification mentioned in approved Drg./ IS 2062	R	R	MTC	
1.3	Hot Rolled Section (Beam, Channel, Angle, Rod, etc)	a)Physical Condition i) Pitting, Rusting,	Visual	100 %	No Pitting, Rusting,	W	W (10%)	IIR	
		ii) Dimension	Measurement	One plate from every heat no.	IS: 1852	R	R	IIR	
		b) Mechanical & Chemical Properties	Verify MTC	MTC 100%	IS: 2062 E250	R	R	MTC	
1.4	Galvanized plain Coils	a) Dimension	Measurement	One plate from every heat no.	As per ASTM A653 / IS 277	W	R	IIR	
		b)Mechanical & Chemical Properties	Verify MTC	MTC 100%	As per ASTM A653/IS 277	R	R	MTC	
2	In Process Inspection: As per approved Drg.								
2.1	Marking	Dimension	Measurement	10% randomly	As per approved Drg.	W	R	IIR	
2.2	Cutting of sheets/Plates	Preparation	Visual	10% randomly	Should be free from burs	W	R	IIR	
2.3	Shop assembling (Fitting & Tacking)	Dimension	Measurement	100%	As per approved Drg.	W	R	IIR	
2.4	Welding (GMAW-MIG CO ₂ /SAW)	a) Welder's Qualification	WPS, PQR, WPQ	100%	ASME Sec. IX	W	R	Lab TC	
		b) Visual, fillet Size	Visual / Measurement	100%	As per approved Drg.	W	R	IIR	
		c) DP Test	NDT	20% of Joint	As per AWS D 1.1	W	R	IIR	
		d) Ultrasonic Test	NDT	10% of Butt joint	As per AWS D1.1	W	R	IIR	

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2.5	C Forming / Z forming	Dimension	Measurement	10% randomly	As per approved Drg	W	R	IIR	
3.0	Surface preparation	Shot blasting	Visual	20% randomly	Free from Oil, dirt, Mill scale. SA 2 ^{1/2}	W	W (10%)	IIR	
4.0	Paint (Asian Paint/Berger/ Nerolac)	a)Primer Type: Epoxy Zinc phosphate Primer b)Finish: Epoxy Polyimide. c)Final: Epoxy Polyurethane	Verify Batch TC	Every Batch	As per manufacturing Spec.	R	R	BTC	
		c) Coating Thickness	DFT Measurement	100%	a) Primer 50micron (each, total two coats) b) 50micron c) 30 micron	W	W (20%)	IIR	Primer two coat at shop, one coat Finish & two coat final paint to be applied at site
5.0	Raw Material:	For Roof & Wall Sheeting. (Make: M/s Safintra Roofing, M/s Tata Bluescope, M/s Dongbu) for Colour Coated Coil :Tata Bluescope/JSW/Bhusan Steel							
5.1	0.6mm TCT Colour Coated Galvalume sheet	Scratching	Visual	100 %	No Scratching	W	R	IIR	
		Mechanical & Chemical	Verify MTC	100 %	As per approved Drg.	R	R	MTC	
6.0	Roll Forming								
6.1	AMRIB Profile for Roof & side sheeting	Scratching	Visual	100%	No Scratching	W	R	IIR	
		Dimension	Measurement	Random	As per approved Drg	W	R	IIR	
7.	Bought Out Items								
7.1	High tensile Bolts, Nuts and Washers	Dimension	Measurement	10 Nos per Lot	As per ASTM A325M / IS: 1367 Gr. 8.8	W	R	IIR	
		Mechanical & Chemical Properties	Verify MTC	MTC 100%	As per ASTM A325M / IS: 1367 Gr. 8.8	W	R	MTC	
7.2	Sky light Panels	Dimension, Colour and MTC	Measurement and Verify MTC	10 Nos per Lot, MTC 100%	As per supplier's specification	W	R	IIR/ MTC	
7.3	Welding Consumables	Specification	Visual	Every Batch / MTC	As per AWS 1.1 / ASME Sec II Part C	W	R	IIR/ MTC	
7.4	Self Drilling Screw	Dimension	Measurement	10 pieces / Lot	As per AS 3566/as per manufacturer Spec	W	R	IIR/ MTC	
		Mechanical & Chemical Properties	Verify MTC	MTC 100%	As per AS 3566/ as per manufacturer Spec	W	R	IIR/ MTC	

LEGEND:

IIR: Internal Inspection Report, MTC: Mill Test Certificate, BTC: Batch Test Certificate, Lab TC: Laboratory Test Certificate, R: Review, W: Witness, WPS: Welder Procedure Specification, WPQ: Welder Performance Qualification, PQR: Procedure Qualification. TCT: Total Coated Thickness.