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BHARAT HEAVY ELECTRICALS LIMITED PIPING CENTRE, CHENNAI- 17 QUALITY ASSURANCE & CONTROL DEPT.			PAINTING SCHEME FOR LP PIPING (CW / ACW / ECW / Plant water, Air Piping, etc...,) PROJECT NAME : - TSGENCO BHADRADRI TPS-4X270 MW BHEL CUSTOMER Nos : 7259, 7260, 7261, 7262, 7279										QPN No: 7259:QPC:12 REV NO: 01 Dt : 10.07.2015	
Sl. NO	PGMA / Description	Surface Preparation & Surface Profile	Primer coat		Intermediate coat			Finish coat			Total DFT Microns (Min.)	REMARKS		
			Primer	No of coats	Paint	No of coats	Shade	Paint	No of coats	Shade				
1	(a) Internal Surface - CW Pipe (or pipe dia - 1000 mm and above)	Blast Cleaning SSPC SP-10 SA 2½ (Refer Note 1)	Epoxy based Zinc rich Primer (Refer Note 2)	1 (50 Microns Min. per coat)	-----	-----	-----	Coal tar epoxy (Refer Note 2)	2 (75 Microns Min. per coat)	-----	200 Microns (Refer Note 3)	13		
2	(b) Holiday test (Refer Note 3)	Holiday testing by low voltage (75 Volts Min.) wet sponge Holiday detector or by High voltage (Voltage per micron of DFT is as recommended by Paint Manufacturer subjected to minimum of 5V / Micron). Holiday test Equipment to be calibrated before testing.	Red Oxide Zinc Phosphate (Alkyd) base to IS: 12744	1 (30 Microns per coat)	-----	-----	-----	-----	-----	-----	30 Microns			
3	External Surface (over ground piping) of CW, ACW, (For all diameters)	SSPC-SP3 / Power Tool Cleaning	Red Oxide - Zinc Phosphate (Alkyd) base to IS: 12744	2 (25 Microns per coat)	-----	-----	-----	Synthetic enamel Long oil Alkyd to IS: 2932	3 ** (35 microns per coat) (2 at shop + 1 at site)	Smoke Grey (Shade No. 892 of IS: 5)	** 1 coat of DFT - 35 microns finish coat at site 120 at shop + 35 at site			
4	External Surface of ECW, Plant water (For all diameters)	SSPC-SP3 / Power Tool Cleaning	Red Oxide - Zinc Phosphate (Alkyd) base to IS: 12744	2 (25 Microns per coat)	-----	-----	-----	Synthetic enamel Long oil Alkyd to IS: 2932	3 ** (35 microns per coat) (2 at shop + 1 at site)	Smoke Grey (Shade No. 892 of IS: 5)	** 1 coat of DFT - 35 microns finish coat at site 120 at shop + 35 at site			
5	Galvanised and Stainless steel Piping				No painting									
Notes:														
1. Blast clearing to near white metal to obtain roughness as per epoxy paint data sheet.														
2. Application of Epoxy based Zinc rich Primer, Coal Tar Epoxy shall be done as per manufacturer's data sheet / recommendation, meeting the thickness requirements as per this document.														
3. Witness by BHEL / BHEL nominated inspection agency.														
 PREPARED BY: V. S. Srinivasan APPROVED BY:  V. S. Srinivasan AS MANUFACTURING / QA			For Customer use :											
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Notes:
 1. Blast cleaning to near white metal to obtain roughness as per epoxy paint data sheet.
 2. Application of Epoxy based Zinc rich Primer, Coal Tar Epoxy shall be done as per manufacturer's data sheet / recommendation, meeting the thickness requirements as per this document.
 3. Witness by BHEL / BHEL nominated inspection agency.

 PREPARED BY: VIVEKANANDA YELLU SOE / OA		 APPROVED BY: VIVEKANANDA YELLU, AGM / O.		For Customer use : Page 1/1
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BHARAT HEAVY ELECTRICALS LIMITED PIPING CENTRE, CHENNAI- 17 QUALITY ASSURANCE & CONTROL DEPT.			PAINTING SCHEME FOR LP PIPING (CW / ACW / ECW / Plant water, Air Piping, etc....)						QPN: 7333:QPC:12 REV.No: 00 Dt: 14.02.2017			
PROJECT NAME :- ROURKELA PP-II EXPANSION - 1 X 250 MW BHEL CUSTOMER Nos : 7333, 7334 & 7335			Primer coat			Intermediate coat			Finish coat			REMARKS
Sl. NO	PGMA / Description	Surface Preparation & Surface Profile	Primer	No of coats	Paint	No of coats	Shade	Paint	No of coats	Shade	Total DFT Microns (Min.)	
1	(a) Internal Surface - CW Pipe (For pipe dia - 1000 mm and above)	Blast Cleaning SSPC SP-10 SA 2½ (Refer Note 1)	4	5	6	7	8	9	10	11	12	13
1			Epoxy based Zinc rich Primer (Refer Note 2)	1 (50 Microns Min. per coat)	---	---	---	Coal tar epoxy (Refer Note 2)	2 (75 Microns Min. per coat)	---	200 Microns (Refer Note 3)	
	(b) Holiday test (Refer Note 3)	Holiday testing by low voltage (75 Volts Min.) wet sponge Holiday detector or by High voltage (Voltage per micron of DFT is as recommended by Paint Manufacturer subjected to minimum of 5V / Micron). Holiday test Equipment to be calibrated before testing.										
2	External Surface of CW -Buried Piping / Encased in concrete (For pipe dia- 1000 mm and above) (Temporary Protection for transportation from works to site). Further protection to be done by BHEL Erection Group as per Contract requirement.	SSPC-SP3 / Power Tool Cleaning	Red Oxide Zinc Phosphate (Alkyd base to IS: 12744)	1 (30 Microns per coat)	---	---	---	---	---	---	30 Microns	
3	External Surface (over ground piping) of CW,ACW.(For all diameters)	SSPC-SP3 / Power Tool Cleaning	Red Oxide - Zinc Phosphate (Alkyd base to IS: 12744)	2 (25 Microns per coat)	---	---	---	Synthetic enamel Long oil Alkyd to IS: 2932	3 ** (35 microns per coat)	Smoke Grey (Shade No. 692 of IS: 5)	120 at shop + 35 at site	** (2 coat at shop + 1 coat at site)
4	External Surface of ECW, Plant water (For all diameters)	SSPC-SP3 / Power Tool Cleaning	Red Oxide - Zinc Phosphate (Alkyd base to IS: 12744)	2 (25 Microns per coat)	---	---	---	Synthetic enamel Long oil Alkyd to IS: 2932	3 ** (35 microns per coat)	Smoke Grey (Shade No. 692 of IS: 5)	120 at shop + 35 at site	** (2 coat at shop + 1 coat at site)
5	Galvanised and Stainless steel Piping							No painting				

Notes:
 1. Blast cleaning to near white metal to obtain roughness as per epoxy paint data sheet.
 2. Application of Epoxy based Zinc rich Primer, Coal Tar Epoxy shall be done as per manufacturer's data sheet / recommendation, meeting the thickness requirements as per this document.

PREPARED BY : C. HARITHA, Sr.Engr / QA	APPROVED BY : VIVEKANANDA YELLU Dy.Mgr / QA	For Customer use	Page 1/1
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