

BHARAT HEAVY ELECTRICALS LIMITED
PIPING CENTRE – CHENNAI - 600 017



GUJARAT STATE ELECTRICITY CORPORATION LIMITED
WANAKBORI 8, KHEDA DIST, GUJARAT
1 X 800 MW – SUPERCRITICAL BOILER & Aux. BOILER

BHEL CUSTOMER Nos : 7266, 7267(Aux.Boiler) & 7274(Outside TG Hall)

PAINTING SCHEME FOR LP PIPING

Prepared by	Vivekananda Yellu SQE/QA	10	DEVELOPMENT CONSULTANTS PRIVATE LIMITED		Document No: 7266:QPC:12
Reviewed & Approved by	Paremeswaran .H DGM / QA		Reviewed only for general conformance with contract drawings and specifications. Contractor to be responsible for any errors and for fulfillment of detailed requirements of contract documents.		Revision No: 01 Dated: 02.11.2015
			ACTION : 2	DATE :23.11.15	
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			1 Distributed	4 Approved except as noted. Resubmission required.	Sheet No. : 1 of 2
			2 <input checked="" type="checkbox"/> Approved	5 Disapproved. See accompanying letter.	
			3 Approved except as noted. Forward final drawing.	6 For information and record only.	
			SEE COVERING LETTER		
			Letter Ref. No.	Date :	



**BHARAT HEAVY
ELECTRICALS LIMITED**
PIPING CENTRE, CHENNAI- 17
QUALITY ASSURANCE & CONTROL DEPT.

PAINTING SCHEME FOR LP PIPING

(CW / ACW / ECW / Plant water, Air Piping...)

PROJECT NAME : - WANAKBORI EXTN. Unit #8 - 1X800 MW
BHEL CUSTOMER Nos : 7266, 7267(Aux.Boiler) & 7274(Outside TG Hall).

QPNo: 7266:QPC:12

REV.NO: 01

Dt : 02.11.2015

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SI. 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	2	3	4	5	6	7	8	9	10	11	12	13
1	(a) Internal Surface - CW Pipe (for 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)	
	(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) (2 at shop + 1 at site)	Smoke Grey (Shade No. 692 of IS: 5)	120 at shop + 35 at site	** 1 coat of DFT-35 microns finish 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) (2 at shop + 1 at site)	Smoke Grey (Shade No. 692 of IS: 5)	120 at shop + 35 at site	** 1 coat of DFT-35 microns finish 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.
3. Witness by BHEL / BHEL nominated inspection agency.