

:TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LIMITED:

From

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To

Shri Shamsheer Singh,
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Lr.No.:CE/Prj/SE/E/THP/EE-7/M/AEE-1/M/F.EnSEZ STPP/D.204/2017 dt. 26.05.2017.

Dear Sir,

Sub.: TANGEDCO - 2 x 660 MW Ennore SEZ STPP – EPC Contract to M/s BHEL –
Quality Plan for Painting Scheme for LP Piping Rev. 2 submitted – No further
comments to M/s BHEL – Approval in Category I accorded – Reg.

Ref.: 1. Lr.No:CE/P/SE/M/EE-10/E/P/F.2x660MWEn.SEZ.STPP/D.60/2014
dt.27.09.2014.

2. M/s BHEL's Email dt. 22.05.2017 & hard copy rcd on 25.05.2017.

With reference to M/s BHEL's letter cited under reference (2) above, the approval
under Category I for Drawings / Documents of Quality Plan for Painting Scheme for LP
Piping Rev. 2 are sent along with the approved drawings / documents.

The column against each drawing/document refers to the remarks applicable to
the particular drawing as indicated below:

Category I - Approved.

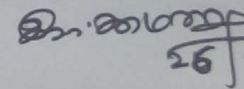
Category II -Approved with comments. Proceed with Fabrication
considering our comments & Resubmit for approval.

Category III - Not approved. See comments and resubmission required.

Category IV - For information.

S.No.	Drawing/Document No.	Rev	Description	Remarks
1.	7270-QPC-12	2	Quality Plan for Painting Scheme for LP Piping	Cat.: I

Yours faithfully,

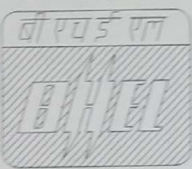

26/05/17

Chief Engineer/Projects:I

Encl.:Approved Documents/Drawings 1 No.

Copy to M/s Desein private limited, Desein House, Greater Kailash-II, New Delhi 110048.

✓ Copy to M/s BHEL-PC, Chennai

PROJECT	2x660MW ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS, CHENNAI	
	OWNER	TAMILNADU GENERATION & DISTRIBUTION CORPORATION LIMITED
	OWNER'S CONSULTANT:-	DESEIN PRIVATE LIMITED DESEIN HOUSE, NEW DELHI
	EPC CONTRACTOR:-	BHARAT HEAVY ELECTRICALS LTD POWER SECTOR PROJECT ENGINEERING MANAGEMENT NEW DELHI
LOGO	EPC CONSULTANT:-	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
LOGO	VENDOR	XXXXXXXXXXXX

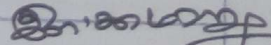
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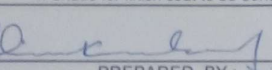
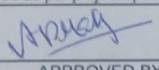
QUALITY PLAN FOR PAINTING SCHEME FOR LP PIPING
(CW ,ACW,ECW , Plant Water, Air Piping)

DOCUMENT NO.	7270:QPC:12	2x660 MW ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT	REV 02
SUB VENDER DOCUMENT NO.		Category : I - APPROVED	

Lr. No.: CE/Prj/SE/THP/EE/7/ALE/1/P/EnSEZPrj/D.204/2017 dt. 26.05.2017

This Approval herein neither relieves the Vendor/Contractor of his contractual obligations and his responsibilities for correctness of dimensions, materials of construction, weights, quantities, design details, assembly fit conforming to the relevant codes and standards as per the specification and performance requirements nor does it limit the purchaser's rights under the contract.


26/05/17
CHIEF ENGINEER/PROJECTS

 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 :- ENNORE SEZ STPP - (2X660MW) BHEL CUSTOMER Nos : 7270, 7271, 7272(Aux.Boiler) & 7273(Outside TG Hall).								QP No: 7270:QPC-1 REV.NO: 02 Dt : 16.05.2017		
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 - Steel Pipe - Seawater handling (b) Holiday test (Refer Note 3)	Blast Cleaning SSPC SP-10 / SA 2½ (Refer Note 1) Holiday testing as per Paint Manufacturer's Quality Plan approved by BHEL. Holiday test Equipment shall be calibrated before testing.	Isophthalic polyester / acrylic co-polymer filled with glass flakes coating								1000 Microns (min)	(Refer Note 2)	
2	External Surface --Buried Piping / Encased in concrete (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		
2A	External Surface --Buried Piping - Not Encased in concrete	Blast cleaning to SSPC SP-10 / SA 2½	Primer : Coal Tar primer compatible with coal tar enamel grade. 2 coats of 35 microns each. Total DFT:70microns. Finish Coat : Coal tar enamel (25mm overlap min) Type-I to IS7193-1974 conforming to table of 10 of IS10221-1982. Thickness - 4.0mm (or) Coal Tar Wrapping conforming to IS 15337-2003; Thickness - 4.0mm Test : Bond/Adhesion; Holiday test								Shall be done by BHEL's Erection Group.		
3	Internal Surface --Other than Sea water handling - (For 800Nb and above diameters)	Blast cleaning to SSPC SP-10 / SA 2½	Epoxy Polyamide resin based Zinc Phosphate Primer	2 (35 microns per coat)	Epoxy resin with MIO	1 (75 microns per coat.)	---	Epoxy Polyamide finish Paint	1 \$ (40 microns per coat)	Smoke Grey Shade No 692 of IS 5 (Refer Note-4)	145 at shop + 40 at site	\$: 1 coat of DFT- 40 microns finish coat at site	
4	External Surface - Over ground piping (For all diameters)	Blast cleaning to SSPC SP-10 / SA 2½	Epoxy Polyamide resin based Zinc Phosphate Primer	2 (35 microns per coat)	Epoxy resin with MIO	1 (75 microns per coat.)	---	Epoxy Polyamide finish Paint	1 \$ (40 microns per coat)	Smoke Grey Shade No 692 of IS 5 (Refer Note-4)	145 at shop + 40 at site	\$: 1 coat of DFT- 40 microns finish coat at site	
5	Galvanised and Stainless steel Piping	No painting . Site painting requirements as indicated in specification (Vol-III, cl.13.10.5) shall be done by BHEL's erection group.											
Notes: 1. Blast cleaning to near white metal to obtain roughness as per paint manufacturer's recommendations. 2. Application and inspection (including DFT) of Isophthalic polyester / acrylic co-polymer filled with glass flakes shall be as per Paint manufacturer's QP and Painting procedure approved by BHEL. 3. Witness by BHEL / BHEL nominated inspection agency. 4. Shade for finish coat to be done at site shall be as per project specification/contract requirement.													
PREPARED BY:  VIVEKANANDA YELLU, Dy.Mgr/QA		APPROVED BY:  A.P. MADHAVANKUTTY, AGM/Q		For Customer use :								Page 1/1	