



A Maharatna Company

एन टी पी सी लिमिटेड

(भारत सरकार का उद्यम)

NTPC Limited

(A Govt. of India Enterprise)

(Formerly National Thermal Power Corporation Ltd.)

(केंद्रीय कार्यालय नोएडा)

Corporate Center NOIDA

Reference : CC-ENGG-1150-001-102-PVM-B-001B

Date : 14/10/2024

From : Anirudh Sood
SENIOR MANAGER

To : BHEL PEM,NOIDA

Cc :

Subject : EPC package of Singrauli Stage-III

Please find enclosed following drawings/ documents for necessary action at your end.

Vendor Drg. No. : HPBP-00-1150-192
Orgn. Drg. No. : 1150-001-102-PVM-B-001B
Revision No. : 01
Drg. Title : PAINTING SCHEME FOR LP PIPING
App. Category : CAT-I
Release Date : 14/10/2024



Scan to verify

Comments : No Comments



Engineering Division
ISO 9001:2008 Certified



अधियंत्रिका कार्यालय परिसर, प्लॉट नं.- ए 8ए, सेक्टर-24, पोस्ट बॉक्स नं.- 13, नोएडा (उ.प्र.) पिन-201 307

टेलिफोन नं.- 0120-2410333, 2410116 फैक्स-0120-2410136, 2410137

पंजीकृत कार्यालय: एनटीपीसी भवन, स्कोप कॉम्प्लेक्स, 7 इंस्टीट्यूशनल एरिया, लोधी रोड, नई दिल्ली-110 003

टेलिफोन नं.- 011-24361018 फैक्स-011-24361018, वेबसाइट: www.ntpc.co.in

ENGINEERING OFFICE COMPLEX, Plot No: A-8A, Sector-24, Post Box No: 13, Noida (UP), Pin-201 307

Telephone No: 0120-2410333, 2410116 Fax-0120-2410136, 2410137

Registered Office: NTPC Bhawan, Scope Complex, 7 Institutional Area, Lodhi Road, New Delhi-110 003

Telephone No: 011 24360100 Fax: 011 24361018, Website: www.ntpc.co.in



COMMENT RESOLUTION SHEET

Dt: 10-09-2024

PROJECT : NTPC SINGRAULI SUPER THERM AL POW ER PROJECT- STAGE III (2X800 M W)

BHEL Doc No : 1840:QPC:12 Rev 01

NTPC Doc No : 1150-001-102-PVM-B-001B

Document Description : PAINTING SCHEME FOR LP PIPING

Sl. No.	NTPC COM M ENT	BHEL's REPLY
1.	Please include the details of painting for the compressed air system as per Part-B, Sub-section-A-16.	As only galvanized piping is in the piping scope for the compressed air system, painting is not applicable as per S. No:4 of the painting scheme.
2.	Primer & painting of buried pipe shall be done as per clause no. 2.09.03, Sub-Section A-09, LP Piping, Part-B, Section-VI of technical specifications.	Noted and updated in Notes-S. No: 6
3.	Drawing no. to be corrected.	Noted and modified the drawing no.
4.	BHEL to provide referred codes to NTPC as per Spec requirement.	The referred codes are standard documents and are readily available in open domain.
5.	INCLUDE IN NOTES: 5)Surface preparation, priming and painting of all non-insulated above ground piping except galvanized steel piping & stainless steel piping. Paints and varnishes, primers, thinners etc. as required for anti-corrosive protection of piping above ground 6)anti-corrosive protection anticorrosive tape or coating wrapping on the external surfaces of pipes to all directly buried piping including galvanized carbon steel piping shall be provided.	Noted and updated in Notes-S. No: 5 Noted and updated in Notes-S. No: 6

Based on the above clarifications, NTPC is requested to approve the PAINTING SCHEME FOR LP PIPING.



For BHEL

 BHARAT HEAVY ELECTRICALS LIMITED PIPING QUALITY ASSURANCE & CONTROL DEPT, TRICHY			PAINTING SCHEME FOR LP PIPING (ACW / ECW / Plant water, Air Piping, etc...,) PROJECT : NTPC SINGRAULI SUPER THERMAL POWER PROJECT- STAGE III (2X800 MW) BHEL CUSTOMER Nos : 1840,1841								QPNNo: 1840;QPC:12 REV.NO: 01 Dt : 10.09.2024	
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	2	3	4	5	6	7	8	9	10	11	12	13
1	(a) Internal Surface - ACW 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)	(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 ACW --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	
3	External Surface a) Over ground piping of ACW (For all diameters) b) 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)
4	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 Testing requirements like DFT, holiday test shall be as per BHEL approved QP with Witness by BHEL / BHEL nominated inspection agency. 4 Colour shade shall be as per NTPC colour coding scheme. 5 Surface preparation, priming and painting of all non-insulated above ground piping except galvanized steel piping & stainless steel piping shall be as mentioned in the above painting scheme 6 For External Surface of ACW --Buried Piping / Encased in concrete, painting scheme for Temporary Protection for transportation from works to site is mentioned in S. No: 2. **Further protection to be done by BHEL Erection Group for Coating and wrapping/ Anti corrosive Protection Coal tar tape on the External Surface of ACW --Buried Piping / Encased in concrete as per Contract requirement.												
 PREPARED BY : M MANOJ PANDI MGR/QA			 REVIEWED BY: K. SARANYA MGR/QA		 APPROVED BY: S JEGAN SR.MGR/Q			For NTPC use MDL No : 1150-001-102-PVM-B-001B			Page 1/1	