



**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 : - NEW NEYVELI TPP - ( 2 X 500 MW ) NTA2 PACKAGE**  
**BHEL CUSTOMER Nos : 7237, 7238 & 7276(Outside TG Hall)**

QPNo: 7237:QPC:12

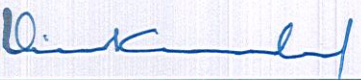

REV.NO: 00

Dt : 06.07.2015

| 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      | 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   | HB Chlorinated Rubber based Zinc Phosphate Primer | 2 ( 50 microns per coat. )   | -----             | -----       | ----- | Chlorinated Rubber based finish paint | 2 ( 30 Microns per Coat )    | Smoke Grey Shade No 692 of IS 5 | 160                        |         |
| 4      | External Surface of ECW, Plant water ( For all diameters)   | SSPC-SP3/ Power Tool Cleaning   | HB Chlorinated Rubber based Zinc Phosphate Primer | 2 ( 50 microns per coat. )   | -----             | -----       | ----- | Chlorinated Rubber based finish paint | 2 ( 30 Microns per Coat )    | Smoke Grey Shade No 692 of IS 5 | 160                        |         |
| 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.

|  |  |                    |          |
|--|--|--------------------|----------|
| <br>PREPARED BY :<br>VIVEKANANDA YELLU, Sr.Engr / QA. | <br>APPROVED BY:<br>V PRADEEP KUMAR, DM / QC. | For Customer use : | Page 1/1 |
|--|--|--------------------|----------|