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|     |            |                    |     |     |     |
| 00  | 28.11.2025 | First release      | RK  | RK  | TV  |
| REV | DATE       | DESCRIPTION / NOTE | PRD | CHD | APD |

## REVISIONS

TITLE:

## PAINTING SCHEME FOR FAN, ESP, APH AND G&D (BHEL RANIPET SUPPLY ITEMS)

OWNER:



**NLC INDIA LIMITED**

OWNER'S CONSULTANT:



**DEVELOPMENT CONSULTANTS  
PRIVATE LIMITED**  
KOLKATA

PROJECT:

**NLC TALABIRA THERMAL POWER PROJECT  
PHASE - 1 (3 X 800 MW)**

EPC CONTRACTOR:



**BHARAT HEAVY ELECTRICALS LTD.**  
BOILER AUXILIARIES PLANT, RANIPET- 632406

|             |              |                                         |
|-------------|--------------|-----------------------------------------|
| Prepared by | Renjith. K   | STATUS: FOR APPROVAL                    |
| Checked by  | Renjith. K   | BHEL CUST NO: R8/1557, R8/1558, R8/1559 |
| Approved by | T. Venugopal | REV NO: 00                              |

**BHEL DRG / DOC NO.: RPT-MQ-1557-PS-001**



**Bharat Heavy Electricals Limited**  
**Boiler Auxiliaries Plant**  
**Ranipet – 632 406**

|              |                       |
|--------------|-----------------------|
| BHEL DOC NO. | PS: TALABIRA: R8:1557 |
| REVISION NO. | 00                    |
| DATE         | 28-11-2025            |

**NLC INDIA LIMITED –**  
**TALABIRA THERMAL POWER PROJECT PHASE - I (3 X 800 MW)**  
**PAINTING SCHEDULE FOR FAN, ESP, APH, GATE & DAMPER AND**  
**CHIMNEY FOR AUX. BOILER**  
**BHEL MDL NO: RPT-MQ-1557-PS-001, REV. 00**

**BHEL RANIPET Customer No(s).: R8/1557, R8/1558 & R8/1559**

| Prepared & Reviewed By                                                              | Approved By                                                                           |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |
| Renjith K / Sr. Manager (QA)                                                        | T. Venugopal / AGM (Quality)                                                          |

| SI<br>No | SURFACE LOCATION | PGMA | SURFACE<br>PREPARATION | PRIMER |                     | FINISH |                     | TOTAL<br>DFT IN<br>(µm<br>min.) |
|----------|------------------|------|------------------------|--------|---------------------|--------|---------------------|---------------------------------|
|          |                  |      |                        | PAINT  | DFT<br>(µm<br>min.) | PAINT  | DFT<br>(µm<br>min.) |                                 |

## RECORD OF REVISION

| REV<br>NO | EFFECTIVE<br>DATE | DETAILS OF REVISION MADE                                        |
|-----------|-------------------|-----------------------------------------------------------------|
| 00        | 28.11.2025        | Original issue – Tender reference provided in Table (Sl. No. 8) |

| SI No | SURFACE LOCATION | PGMA | SURFACE PREPARATION | PRIMER |               | FINISH |               | TOTAL DFT IN (µm min.) |
|-------|------------------|------|---------------------|--------|---------------|--------|---------------|------------------------|
|       |                  |      |                     | PAINT  | DFT (µm min.) | PAINT  | DFT (µm min.) |                        |

## 1. AIR PRE-HEATER (APH)

|    |                                                                  |                        |                |                                       |                                                                                                                                                                          |    |    |    |    |
|----|------------------------------------------------------------------|------------------------|----------------|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|----|----|
| 01 | Steam coil APH<br>Temp > 95°C                                    |                        | 50510          | Power Tool cleaning to St3 (SSPC-SP3) | Two Coats Red Oxide Zinc phosphate prime to IS:12744                                                                                                                     | 60 | -- | -- | 60 |
| 02 | Module assembly, Tubular Air heater (Insulated)<br>– Temp > 95°C |                        | 52010<br>50121 | Power Tool cleaning to St3 (SSPC-SP3) | Two Coats Red Oxide Zinc phosphate prime to IS:12744                                                                                                                     | 60 | -- | -- | 60 |
| 03 | Heating Element with Baskets                                     |                        | 52010          | Power Tool cleaning to St3 (SSPC-SP3) | Temporary Rust Preventive Oil application (Wet) as per PRQA 522<br><b>Note:</b> Heating elements are assembled in module assy after dipping in the rust preventive fluid |    |    |    |    |
| 04 | Rotor post assembly<br>– Temp > 95°C                             |                        | 52011          | Power Tool cleaning to St3 (SSPC-SP3) | Two Coats Red Oxide Zinc phosphate prime to IS:12744                                                                                                                     | 60 | -- | -- | 60 |
| 05 | Pin rack assembly                                                |                        | 52012          | ---                                   | Temp rust preventive as per PRQA 523                                                                                                                                     | 20 | -- | -- | 20 |
| 06 | Radial Seals<br>–Temp > 95°C                                     | T Bars                 | 52013          | Power Tool cleaning to St3 (SSPC-SP3) | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats)                                                                                                                 | 60 | -- | -- | 60 |
|    |                                                                  | Seals                  |                |                                       | Temp. Rust Preventive Oil as per PRQA 523                                                                                                                                | 20 | -- | -- | 20 |
| 07 | Rotor Housing Assembly<br>– Temp > 95°C                          | Insulated Side         | 52030          | Power Tool cleaning to St3 (SSPC-SP3) | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats)                                                                                                                 | 60 | -- | -- | 60 |
|    |                                                                  | Flue gas Swept Surface |                |                                       | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats)                                                                                                                 | 60 | -- | -- | 60 |
| 08 | Hot and Cold End Connecting Plate Assembly<br>– Temp > 95°C      | Insulated Side         | 52041<br>52042 | Power Tool cleaning to St3 (SSPC-SP3) | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats)                                                                                                                 | 60 | -- | -- | 60 |
|    |                                                                  | Flue gas Swept Surface |                |                                       | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats)                                                                                                                 | 60 | -- | -- | 60 |
| 09 | Axial seals                                                      |                        | 52054          | Power Tool cleaning to St3 (SSPC-SP3) | Temp. Rust Preventive Oil as per PRQA 523                                                                                                                                | 20 | -- | -- | 20 |

| SI No | SURFACE LOCATION                                                          | PGMA           | SURFACE PREPARATION                         | PRIMER                                                   |               | FINISH                                                                                    |               | TOTAL DFT IN (µm min.) |
|-------|---------------------------------------------------------------------------|----------------|---------------------------------------------|----------------------------------------------------------|---------------|-------------------------------------------------------------------------------------------|---------------|------------------------|
|       |                                                                           |                |                                             | PAINT                                                    | DFT (µm min.) | PAINT                                                                                     | DFT (µm min.) |                        |
| 10    | Bypass seals                                                              | 52055          | Power Tool cleaning to St3 (SSPC-SP3)       | Temp. Rust Preventive Oil as per PRQA 523                | 20            | --                                                                                        | --            | 20                     |
| 11    | Rotor Drive assembly<br>With bracket, Air Motor,<br>Gear Box – Temp <95°C | 52100          | Power Tool cleaning to St3 (SSPC-SP3)       | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744 | 30            | Synthetic Enamel to IS2932<br>Shade: Smoke grey<br>Shade 692 of IS 5 (Two coats of 20 µm) | 40            | 70                     |
| 12    | Air seal piping<br>Temp < 95° C                                           | 52211          | Power Tool cleaning to St3 (SSPC-SP3)       | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744 | 30            | Synthetic Enamel to IS2932<br>Shade: Smoke grey<br>Shade 692 of IS 5 (Two coats of 20 µm) | 40            | 70                     |
| 13    | Access door –<br>Temp. > 95 ° C                                           | 52220          | Power Tool cleaning to St3 (SSPC-SP3)       | Red Oxide Zinc Phosphate Primer to IS: 12744 (two coats) | 60            | --                                                                                        | --            | 60                     |
| 14    | Observation port with light                                               | 52220          | No painting, as the same is made of Glass   |                                                          |               |                                                                                           |               |                        |
|       | Other than glass part –<br>Temp > 95°C                                    | 52220          | Power Tool cleaning to St3 (SSPC-SP3)       | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744 | 30            | Synthetic Enamel to IS2932<br>Shade: Smoke grey<br>Shade 692 of IS 5 (Two coats of 20 µm) | 40            | 70                     |
| 15    | Rotor Stoppage alarm                                                      | 52220          | Made of Aluminium (No painting is required) |                                                          |               |                                                                                           |               |                        |
|       | Other than aluminum -<br>Temp > 95°C                                      |                | Power Tool cleaning to St3 (SSPC-SP3)       | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744 | 30            | Synthetic Enamel to IS2932<br>Shade: Smoke grey<br>Shade 692 of IS 5 (Two coats of 20 µm) | 40            | 70                     |
| 16    | Air receiver – Temp < 95°C                                                | 52101          | Power Tool cleaning to St3 (SSPC-SP3)       | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744 | 30            | Synthetic Enamel to IS2932<br>Shade: Smoke grey<br>Shade 692 of IS 5 (Two coats of 20 µm) | 40            | 70                     |
| 17    | Lifting beams, special<br>Tools & tackles –<br>Temp < 95°C                | 52220<br>52000 | Power Tool cleaning to St3 (SSPC-SP3)       | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744 | 30            | Synthetic Enamel to IS2932<br>Shade: Smoke grey<br>Shade 692 of IS 5 (Two coats of 20 µm) | 40            | 70                     |
| 18    | T C pipe Assy.<br>(Stainless Steel part)                                  | 52220          | No Painting                                 |                                                          |               |                                                                                           |               |                        |

| SI No | SURFACE LOCATION                                                   | PGMA                    | SURFACE PREPARATION                   | PRIMER                                                   |               | FINISH                                                                              |               | TOTAL DFT IN (µm min.) |
|-------|--------------------------------------------------------------------|-------------------------|---------------------------------------|----------------------------------------------------------|---------------|-------------------------------------------------------------------------------------|---------------|------------------------|
|       |                                                                    |                         |                                       | PAINT                                                    | DFT (µm min.) | PAINT                                                                               | DFT (µm min.) |                        |
|       | T C pipe Assy. (Non Stainless Steel part) – Temp < 95°C            | 52220                   | Power Tool cleaning to St3 (SSPC-SP3) | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744 | 30            | Synthetic Enamel to IS2932 Shade: Smoke grey Shade 692 of IS 5 (Two coats of 20 µm) | 40            | 70                     |
| 19    | Guide Bearing Assembly – Temp < 95°C                               | 52261                   | Power Tool cleaning to St3 (SSPC-SP3) | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744 | 30            | Synthetic Enamel to IS2932 Shade: Smoke grey Shade 692 of IS 5 (Two coats of 20 µm) | 40            | 70                     |
| 20    | Supporting Bearing Assembly – Temp < 95°C                          | 52262                   | Power Tool cleaning to St3 (SSPC-SP3) | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744 | 30            | Synthetic Enamel to IS2932 Shade: Smoke Grey Shade 692 of IS 5 (Two coats)          | 40            | 70                     |
| 21    | Oil piping Hot end– Temp < 95°C                                    | 52271                   | Power Tool cleaning to St3 (SSPC-SP3) | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744 | 30            | Synthetic Enamel to IS2932 Shade: Smoke Grey Shade 692 of IS 5 (Two coats)          | 40            | 70                     |
| 22    | Oil piping cold end– Temp < 95°C                                   | 52272                   | Power Tool cleaning to St3 (SSPC-SP3) | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744 | 30            | Synthetic Enamel to IS2932 Shade: Smoke Grey Shade 692 of IS 5 (Two coats)          | 40            | 70                     |
| 23    | Oil circulating units – Temp < 95°C                                | 52274                   | Power Tool cleaning to St3 (SSPC-SP3) | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744 | 30            | Synthetic Enamel to IS2932 Shade: Smoke Grey Shade 692 of IS 5 (Two coats)          | 40            | 70                     |
| 24    | Washing manifold & deluge assy items– Temp < 95°C                  | 52301<br>52302          | Power Tool cleaning to St3 (SSPC-SP3) | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744 | 30            | Synthetic Enamel to IS2932 Shade: Smoke Grey Shade 692 of IS 5 (Two coats)          | 40            | 70                     |
| 25    | Cleaning Device assemblies Tube with Nozzle, HP Pump – Temp < 95°C | 52338<br>52339<br>52341 | Power Tool cleaning to St3 (SSPC-SP3) | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744 | 30            | Synthetic Enamel to IS2932 Shade: Smoke Grey Shade 692 of IS 5 (Two coats)          | 40            | 70                     |
| 26    | Cleaning device drive– Temp < 95°C                                 | 52339                   | Power Tool cleaning to St3 (SSPC-SP3) | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744 | 30            | Synthetic Enamel to IS2932 Shade: Smoke Grey Shade 692 of IS 5 (Two coats)          | 40            | 70                     |
| 27    | Commissioning spares and Mandatory spares                          | 52988                   | As per respective items as above      |                                                          |               |                                                                                     |               |                        |

| SI No | SURFACE LOCATION | PGMA | SURFACE PREPARATION | PRIMER |               | FINISH |               | TOTAL DFT IN (µm min.) |
|-------|------------------|------|---------------------|--------|---------------|--------|---------------|------------------------|
|       |                  |      |                     | PAINT  | DFT (µm min.) | PAINT  | DFT (µm min.) |                        |

## 2. FANS

|    |                                                                                                                                                                                        |                                                                               |                                             |                                                                                                                         |    |                                                                            |    |    |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|----|----------------------------------------------------------------------------|----|----|
| 01 | Foundation Material of FD, ID, PA, Seal Air Fans & Aux. FD Fan                                                                                                                         | 55011<br>55021<br>55031<br>56001                                              | Temp. Rust Preventive Fluid as per PRQA 523 |                                                                                                                         | 20 | --                                                                         | -- | 20 |
| 02 | Foundation Material of FD, ID & PA Fans – Packer Plates<br><br>Seal Air Fan Motor Base Frame / Plate<br><br>Base Frame for Actuators of FD, ID & PA Fans                               | 55011<br>55021<br>55031<br>55516<br>55628<br>55635<br>55019<br>55029<br>55039 | Power Tool cleaning to St3 (SSPC-SP3)       | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744                                                                | 30 | Synthetic Enamel to IS2932 Shade: Smoke Grey Shade 692 of IS 5 (Two coats) | 40 | 70 |
| 03 | <b>FD FAN &lt;95° C Surface Temperature Static Parts</b> - Insulated Surface (Outside) & Ambient Air swept surface (Inside) setting & indication shaft assembly, expansion joint parts | 55516<br>55716<br>55816<br>55410<br>55510                                     | Power tool cleaning to St3(SSPC-SP3)        | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats)                                                                | 60 | --                                                                         | -- | 60 |
|    | <b>Rotating Parts</b> (Inside the Insulated static parts – protection up to erection)                                                                                                  | 55216                                                                         | Power tool cleaning to St3 (SSPC-SP3)       | Epoxy based Zinc Phosphate Primer (Two Pack system) as per IS:13238 (Two coats) per coat= 30µm & Total DFT = 60 µm min. | 60 | --                                                                         | -- | 60 |

| SI No | SURFACE LOCATION                                                                                                                                                                                            | PGMA                                                                                                                                         | SURFACE PREPARATION                   | PRIMER                                                                                                                  |               | FINISH                                                                              |               | TOTAL DFT IN (µm min.) |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------------------------------------------------------------------|---------------|------------------------|
|       |                                                                                                                                                                                                             |                                                                                                                                              |                                       | PAINT                                                                                                                   | DFT (µm min.) | PAINT                                                                               | DFT (µm min.) |                        |
| 04    | <b>ID FAN &gt;95° C Surface Temperature Static Parts</b> - Insulated Surface (Outside), expansion joint parts                                                                                               | 55628<br>55728<br>55828                                                                                                                      | Power Tool cleaning to St3 (SSPC-SP3) | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats)                                                                | 60            | --                                                                                  | --            | 60                     |
|       | <b>Static Parts</b> – Flue gas swept surface (Inside), setting & indication shaft assembly                                                                                                                  | 55420<br>55520                                                                                                                               | Power tool cleaning to St3 (SSPC-SP3) | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats)                                                                | 60            | --                                                                                  | --            | 60                     |
|       | <b>Rotating Parts</b> - (Inside the insulated Static Parts – protection up to erection)                                                                                                                     | 55328                                                                                                                                        | Power tool cleaning to St3(SSPC-SP3)  | Epoxy based Zinc Phosphate Primer (Two Pack system) as per IS:13238 (Two coats) per coat= 30µm & Total DFT = 60 µm min. | 60            | --                                                                                  | --            | 60                     |
| 05    | <b>PA FAN &lt;95° C surface Temperature Static parts</b> – Insulated Surface (Outside) & Ambient Air swept surface (Inside) setting & indication shaft assembly, expansion joint parts                      | 55635<br>55735<br>55835<br>55430<br>55530                                                                                                    | Power tool cleaning to St3 (SSPC-SP3) | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats)                                                                | 60            | --                                                                                  | --            | 60                     |
|       | <b>Rotating Parts</b> (Inside the insulated static parts- protection up to erection)                                                                                                                        | 55335                                                                                                                                        | Power tool cleaning to St3 (SSPC-SP3) | Epoxy based Zinc Phosphate Primer (Two Pack system) as per IS:13238 (Two coats) per coat= 30µm & Total DFT = 60 µm min. | 60            | --                                                                                  | --            | 60                     |
| 06    | <b>Coupling and coupling Guard</b> – for FD, ID & PA FAN, Seal Air FAN & FD Fan (Aux. Boiler), SA Fan motor canopy, Aux. FD Fan motor canopy, FD, ID, PA Fan LOS canopy, Fan tools & fixtures – temp < 95°C | 55015<br>55025<br>55035<br>55210<br>55220<br>55230<br>56000<br>56075<br>56079<br>55810<br>55820<br>55830<br>56005<br>56009<br>56800<br>56870 | Power tool cleaning to St3 (SSPC-SP3) | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744                                                                | 30            | Synthetic Enamel to IS2932 Shade: Smoke grey Shade 692 of IS 5 (two coats of 20 µm) | 40            | 70                     |

| SI No | SURFACE LOCATION                                                                                                                                                                    | PGMA                                                                 | SURFACE PREPARATION                                                                                      | PRIMER                                                                                              |               | FINISH                                                                              |               | TOTAL DFT IN (µm min.) |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|---------------|-------------------------------------------------------------------------------------|---------------|------------------------|
|       |                                                                                                                                                                                     |                                                                      |                                                                                                          | PAINT                                                                                               | DFT (µm min.) | PAINT                                                                               | DFT (µm min.) |                        |
| 07    | <b>Lub oil System</b> – For FD, ID & PA FAN                                                                                                                                         | 55910<br>55920<br>55930                                              | Power Tool cleaning to St3 (SSPC-SP3)                                                                    | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744                                            | 30            | Synthetic Enamel to IS2932 Shade: Smoke Grey Shade 692 of IS 5 (Two coats)          | 40            | 70                     |
| 08    | <b>Silencer for FD &amp; PA FAN</b><br><95° C Surface Temperature Insulated Surface                                                                                                 | 55911<br>55931                                                       | Power Tool cleaning to St3 (SSPC-SP3)                                                                    | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744                                            | 30            | Synthetic Enamel to IS2932 Shade: Smoke Grey Shade 692 of IS 5 (Two coats)          | 40            | 70                     |
| 09    | Radial pent house ventilation /ID sealing /cooling fans/ Seal Air Fan & FD FAN (Aux. Boiler), FD Fan bearing housing, Aux FD Fan Rotor, Aux FD Bearing HSG & Acc, Aux FD Fan Stator | 55024<br>56161<br>56104<br>56173<br>56300<br>56373<br>56404<br>56473 | Power tool cleaning to St3 (SSPC-SP3)                                                                    | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744                                            | 30            | Synthetic Enamel to IS2932 Shade: Smoke grey Shade 692 of IS 5 (two coats of 20 µm) | 40            | 70                     |
| 10    | FD, ID, PA & SA Fan, Aux. FD Fan Stair & Handrail – Galvanizing items (as per BHEL Engineering document)                                                                            | 55012<br>55022<br>55032<br>56072<br>56002                            | Gratings- Blast cleaning to Sa 2½<br>Other Items- Power tool cleaning to St3(SSPC-SP3) and acid cleaning | Hot Dip Galvanizing to 610 gm per Sq. Meter (minimum) and to a coating thickness of 85 µm (minimum) |               |                                                                                     |               |                        |
|       | FD, ID & PA Fan, Aux. FD Fan Stair & Handrail – Other than galvanized structural items                                                                                              |                                                                      | Power Tool cleaning to St3 (SSPC-SP3)                                                                    | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744                                            | 30            | Synthetic Enamel to IS2932 Shade: Smoke Grey Shade 692 of IS 5 (Two coats)          | 40            | 70                     |

| SI No | SURFACE LOCATION | PGMA | SURFACE PREPARATION | PRIMER |               | FINISH |               | TOTAL DFT IN (µm min.) |
|-------|------------------|------|---------------------|--------|---------------|--------|---------------|------------------------|
|       |                  |      |                     | PAINT  | DFT (µm min.) | PAINT  | DFT (µm min.) |                        |

### 3. GATES & DAMPER

|    |                                                                                                                     |                                                                                                                |                                                                                                         |                                                                                                     |    |                                                                            |    |    |
|----|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----|----------------------------------------------------------------------------|----|----|
| 01 | Gates & Dampers > 95°C up to 400 °C                                                                                 | 57063, 57083, 57203, 57223, 57270, 57273, 57360, 57413, 57433, 57460, 57470, 57480, 57490, 57600, 57613, 57620 | Power Tool cleaning to St3 (SSPC-SP3)                                                                   | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats)                                            | 60 | --                                                                         | -- | 60 |
| 02 | Gates & Dampers, Seal Air piping < 95 °C                                                                            | 57010, 57020, 57023, 57033, 57073, 57110, 57113, 57143, 57160, 57173, 57A13                                    | Power tool cleaning to St3 (SSPC-SP3)                                                                   | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744                                            | 30 | Synthetic Enamel to IS2932 Shade: Smoke Grey Shade 692 of IS 5 (Two coats) | 40 | 70 |
| 03 | Ladder, Cage for Ladder, Toe Guard Plate Floor Grill, Hand Rails, Hand Rail Post,                                   | 57466<br>57666                                                                                                 | Gratings-Blast cleaning to Sa 2½<br>Other Items - Power tool cleaning to St3 (SSPC-SP3) & Acid cleaning | Hot Dip Galvanizing to 610 gm per Sq. Meter (minimum) and to a coating thickness of 85 µm (minimum) |    |                                                                            |    |    |
| 04 | Other Structural Items – other than sl.no. 3 of above. Blower with motor, valves, Mounting bracket, Seal air piping | 57466, 57666, 57209, 57141, 57491, 57S91, 57497, 57S09, 57S97, 57S41                                           | Power tool cleaning to St3(SSPC-SP3)                                                                    | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744                                            | 30 | Synthetic Enamel to IS2932 Shade: Smoke Grey Shade 692 of IS 5 (Two coats) | 40 | 70 |
| 05 | Ducts Commissioning Spares                                                                                          | 57997<br>57988                                                                                                 | As per respective items mentioned in this Painting Scheme                                               |                                                                                                     |    |                                                                            |    |    |

| SI No | SURFACE LOCATION | PGMA | SURFACE PREPARATION | PRIMER |               | FINISH |               | TOTAL DFT IN (µm min.) |
|-------|------------------|------|---------------------|--------|---------------|--------|---------------|------------------------|
|       |                  |      |                     | PAINT  | DFT (µm min.) | PAINT  | DFT (µm min.) |                        |

#### 4. ELECTROSTATIC PRECIPITATOR (ESP)

|    |                                                              |       |                                                                                   |                                                          |    |                                                                            |    |    |
|----|--------------------------------------------------------------|-------|-----------------------------------------------------------------------------------|----------------------------------------------------------|----|----------------------------------------------------------------------------|----|----|
| 1  | Insulator Housing Assembly – Temp > 95°C                     | 79206 | Power Tool cleaning to St3 (SSPC-SP3)                                             | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats) | 60 | --                                                                         | -- | 60 |
| 2  | Gas Distribution Assembly– Temp > 95°C                       | 79208 | Power Tool cleaning to St3 (SSPC-SP3)                                             | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats) | 60 | --                                                                         | -- | 60 |
| 3  | GD Rapping Mechanism – Temp > 95°C                           | 79209 | Power Tool cleaning to St3 (SSPC-SP3)                                             | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats) | 60 | --                                                                         | -- | 60 |
| 4  | GD Drive Arrangements – Temp < 95°C                          | 79210 | Power tool cleaning to St3(SSPC-SP3)                                              | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744 | 30 | Synthetic Enamel to IS2932 Shade: Smoke Grey Shade 692 of IS 5 (Two coats) | 40 | 70 |
| 5  | Gas Screening – Temp > 95°C                                  | 79211 | Power Tool cleaning to St3 (SSPC-SP3)                                             | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats) | 60 | --                                                                         | -- | 60 |
| 6  | Emitting System suspension – Temp > 95°C                     | 79213 | Power Tool cleaning to St3 (SSPC-SP3)                                             | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats) | 60 | --                                                                         | -- | 60 |
| 7  | Emitting Electrode – Hook Part                               | 79215 | Rust preventive application on Hook part only (Electrode Wire is Stainless Steel) |                                                          |    |                                                                            |    |    |
| 8  | Emitting Electrode Rapping Mechanism – Temp > 95°C           | 79216 | Power Tool Cleaning to St3 (SSPC-SP3)                                             | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats) | 60 | --                                                                         | -- | 60 |
| 9  | Drive Arrangement for Emitting System– Temp < 95°C           | 79217 | Power Tool Cleaning to St3 (SSPC-SP3)                                             | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744 | 30 | Synthetic Enamel to IS2932 Shade: Smoke Grey Shade 692 of IS 5 (Two coats) | 40 | 70 |
| 10 | Suspension Arrangement for Collecting Electrode– Temp > 95°C | 79219 | Power Tool Cleaning to St3 (SSPC-SP3)                                             | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats) | 60 | --                                                                         | -- | 60 |
| 11 | Collecting Electrode                                         | 79220 | Rust Preventive Fluid as per TEP AQCS RP                                          |                                                          |    |                                                                            |    |    |

| SI No | SURFACE LOCATION                                          | PGMA  | SURFACE PREPARATION                   | PRIMER                                                   |               | FINISH                                                                     |               | TOTAL DFT IN (µm min.) |
|-------|-----------------------------------------------------------|-------|---------------------------------------|----------------------------------------------------------|---------------|----------------------------------------------------------------------------|---------------|------------------------|
|       |                                                           |       |                                       | PAINT                                                    | DFT (µm min.) | PAINT                                                                      | DFT (µm min.) |                        |
| 12    | Lifting Beam for Collecting Electrode                     | 79220 | Power Tool Cleaning to St3 (SSPC-SP3) | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744 | 30            | Synthetic Enamel to IS2932 Shade: Smoke Grey Shade 692 of IS 5 (Two coats) | 40            | 70                     |
| 13    | Frame of Emitting System-Top – Temp > 95°C                | 79221 | Power Tool cleaning to St3 (SSPC-SP3) | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats) | 60            | --                                                                         | --            | 60                     |
| 14    | Frame of Emitting System - Bottom – Temp > 95°C           | 79222 | Power Tool cleaning to St3 (SSPC-SP3) | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats) | 60            | --                                                                         | --            | 60                     |
| 15    | Inspection /Access Door                                   | 79223 | Power Tool Cleaning to St3 (SSPC-SP3) | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744 | 30            | Synthetic Enamel to IS2932 Shade: Smoke Grey Shade 692 of IS 5 (Two coats) | 40            | 70                     |
| 16    | Shock Bars – Temp > 95°C                                  | 79224 | Power Tool cleaning to St3 (SSPC-SP3) | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats) | 60            | --                                                                         | --            | 60                     |
| 17    | Collecting Electrode (CE) Rapping Mechanism – Temp > 95°C | 79225 | Power Tool cleaning to St3 (SSPC-SP3) | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats) | 60            | --                                                                         | --            | 60                     |
| 18    | Drive Arrangements for CE Rapping – Temp < 95°C           | 79226 | Power Tool Cleaning to St3 (SSPC-SP3) | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744 | 30            | Synthetic Enamel to IS2932 Shade: Smoke Grey Shade 692 of IS 5 (Two coats) | 40            | 70                     |
| 19    | ESP Roof Beams – Temp > 95°C                              | 79228 | Power Tool cleaning to St3 (SSPC-SP3) | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats) | 60            | --                                                                         | --            | 60                     |
| 20    | Frame of Emitting System – Middle – Temp > 95°C           | 79232 | Power Tool cleaning to St3 (SSPC-SP3) | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats) | 60            | --                                                                         | --            | 60                     |
| 21    | Outer Roof –EP - – Temp < 95°C                            | 79242 | Power Tool Cleaning to St3 (SSPC-SP3) | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744 | 30            | Synthetic Enamel to IS2932 Shade: Smoke Grey Shade 692 of IS 5 (Two coats) | 40            | 70                     |
| 22    | Hopper Ridges – Temp > 95°C                               | 79243 | Power Tool cleaning to St3 (SSPC-SP3) | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats) | 60            | --                                                                         | --            | 60                     |

| SI No | SURFACE LOCATION                                                                            | PGMA                             | SURFACE PREPARATION                   | PRIMER                                                   |               | FINISH                                                                     |               | TOTAL DFT IN (µm min.) |
|-------|---------------------------------------------------------------------------------------------|----------------------------------|---------------------------------------|----------------------------------------------------------|---------------|----------------------------------------------------------------------------|---------------|------------------------|
|       |                                                                                             |                                  |                                       | PAINT                                                    | DFT (µm min.) | PAINT                                                                      | DFT (µm min.) |                        |
| 23    | Hopper Upper part – Temp> 95°C                                                              | 79244                            | Power Tool cleaning to St3 (SSPC-SP3) | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats) | 60            | --                                                                         | --            | 60                     |
| 24    | Hopper Middle & Lower part – Temp > 95°C                                                    | 79245                            | Power Tool cleaning to St3 (SSPC-SP3) | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats) | 60            | --                                                                         | --            | 60                     |
| 25    | Insulator Support Panel – Temp > 95°C                                                       | 79246                            | Power Tool cleaning to St3 (SSPC-SP3) | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats) | 60            | --                                                                         | --            | 60                     |
| 26    | Roof Panel Assy – Temp > 95°C                                                               | 79247                            | Power Tool cleaning to St3 (SSPC-SP3) | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats) | 60            | --                                                                         | --            | 60                     |
| 27    | Casing Structure – Temp > 95°C                                                              | 79248                            | Power Tool cleaning to St3 (SSPC-SP3) | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats) | 60            | --                                                                         | --            | 60                     |
| 28    | Casing (Shell, Side Panels, Gables & GD Housing)– Temp > 95°C                               | 79249                            | Power Tool cleaning to St3 (SSPC-SP3) | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats) | 60            | --                                                                         | --            | 60                     |
| 29    | ESP Funnel Assembly – Temp > 95°C                                                           | 79250                            | Power Tool cleaning to St3 (SSPC-SP3) | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats) | 60            | --                                                                         | --            | 60                     |
| 30    | ESP Pent House – Temp <95°C<br>(Other than columns)<br><b>Columns - Refer to Sl. No: 38</b> | 79255                            | Power tool cleaning to St3(SSPC-SP3)  | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744 | 30            | Synthetic Enamel to IS2932 Shade: Smoke Grey Shade 692 of IS 5 (Two coats) | 40            | 70                     |
| 31    | Splitters & Guide Vanes, Fixing component of ESP insulation – Temp > 95°C                   | 79257<br>79289<br>79268<br>79264 | Power tool cleaning to St3(SSPC-SP3)  | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two coats) | 60            | --                                                                         | --            | 60                     |
| 32    | ESP Performance Test Equipment, Miscellaneous items – Temp < 95°C                           | 79261                            | Power tool cleaning to St3(SSPC-SP3)  | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744 | 30            | Synthetic Enamel to IS2932 Shade: Smoke Grey Shade 692 of IS 5 (Two coats) | 40            | 70                     |
| 33    | Water Washing System – Temp < 95°C                                                          | 79266                            |                                       |                                                          |               |                                                                            |               |                        |

| SI No | SURFACE LOCATION                                                                                                                                                                                         | PGMA                                      | SURFACE PREPARATION                                                                                       | PRIMER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |               | FINISH                                                                     |               | TOTAL DFT IN (µm min.) |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------------------------------------------------------------------|---------------|------------------------|
|       |                                                                                                                                                                                                          |                                           |                                                                                                           | PAINT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | DFT (µm min.) | PAINT                                                                      | DFT (µm min.) |                        |
| 34    | Hand Rail Post, Bend, ERW Tubes, Floor Grill and Step Tread                                                                                                                                              | 79265<br>89610<br>89611<br>89612<br>89613 | Gratings- Blast cleaning to Sa 2½<br>Other Items- Power tool cleaning to St3(SSPC-SP3) and acid cleaning  | Hot Dip Galvanizing to 610 gm sq. Meter (minimum) and to a coating thickness of 85 µm (minimum)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |               |                                                                            |               |                        |
| 35    | Commissioning Spares                                                                                                                                                                                     | 79988<br>79997                            | As per respective item, as listed in the painting schedule                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |               |                                                                            |               |                        |
| 36    | Tools & Tackles– Temp < 95°C                                                                                                                                                                             | 79996                                     | Power tool cleaning to St3(SSPC-SP3)                                                                      | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 30            | Synthetic Enamel to IS2932 Shade: Smoke Grey Shade 692 of IS 5 (Two coats) | 40            | 70                     |
| 37    | Other than galvanized items for Approach Platform for Hopper                                                                                                                                             | 79265                                     | Blast Cleaning to Sa 2.5 Near White metal finish of ISO 8501-1 with surface roughness profile to 40-60 µm | <b>Primer Coat:</b> One coat of two component moisture curing Inorganic Ethyl Zinc Silicate Primer to IS 14946, Metallic Zinc content- 75% (min) in dry film, <b>DFT = 80µm per coat (min)</b>                                                                                                                                                                                                                                                                                                                                                                                                                |               |                                                                            |               |                        |
| 38    | Supporting Structure for ESP, Penthouse columns (Refer note 5 for surface embedded in concrete)                                                                                                          | 79255<br>79281                            |                                                                                                           | <b>Intermediate Coat:</b> One coat of two component Polyamide cured Epoxy based MIO pigmented coat <b>DFT = 120µm per coat (min)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |               |                                                                            |               |                        |
| 39    | Other than galvanized items vide sl. No. 34, like Stair stringer Channels, Bracket, Support Bracket, Frames Loose Channels, Toe Plates, Stiffener Plates and Angles for EP Galleries, Stair and Walk Way | 79265<br>89610<br>89611                   |                                                                                                           | <b>Finish Coat:</b> Two coats of Aliphatic Acrylic Polyurethane to IS 13213, <b>DFT = 30 µm per coat (min) Total - 60 µm (min)</b> Shade <b>Dark Admiralty Grey to Shade No. 632 of IS 5</b>                                                                                                                                                                                                                                                                                                                                                                                                                  |               |                                                                            |               |                        |
|       |                                                                                                                                                                                                          |                                           |                                                                                                           | <b>Note:</b><br><b>1.</b> The total paint thickness Primer (80 µm) + Intermediate (120 µm) + Finish coat (60 µm) shall be minimum <b>260 µm</b> .<br><b>2.</b> DFT of individual paint coat shall be ensured separately and the same shall meet the specified minimum DFT of each coat as given above.<br><b>3.</b> Bottom of base plate including below zero level portion marked in EP Supporting Columns which will be embedded in concrete, those surfaces shall be prepared by manual cleaning to ST3 and provided with primer coat of chlorinated rubber-based zinc phosphate primer of min. 50 µm DFT. |               |                                                                            |               |                        |

| SI No | SURFACE LOCATION | PGMA | SURFACE PREPARATION | PRIMER |               | FINISH |               | TOTAL DFT IN (µm min.) |
|-------|------------------|------|---------------------|--------|---------------|--------|---------------|------------------------|
|       |                  |      |                     | PAINT  | DFT (µm min.) | PAINT  | DFT (µm min.) |                        |

## 5. CHIMNEY FOR AUX. BOILER

|    |                                                                               |                        |                         |                                                                         |                                                                                         |    |                                                                            |    |    |
|----|-------------------------------------------------------------------------------|------------------------|-------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|----|----------------------------------------------------------------------------|----|----|
| 01 | Chimney Foundation Materials                                                  |                        | 87010                   | Power Tool cleaning to St3 (SSPC-SP3)                                   | Temp. Rust Preventive Fluid as per PRQA 523                                             | 20 | --                                                                         | -- | 20 |
| 02 | Chimney shell– temp > 95°C                                                    | Insulated Side         | 87100                   | Power Tool cleaning to St3 (SSPC-SP3)                                   | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two Coats)                                | 60 | --                                                                         | -- | 60 |
|    |                                                                               | Flue Gas Swept Surface |                         |                                                                         | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two Coats)                                | 60 | --                                                                         | -- | 60 |
| 03 | Chimney Ducts, Chimney Ins fix comp – temp > 95°C                             | Insulated Side         | 87150                   | Power Tool cleaning to St3 (SSPC-SP3)                                   | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two Coats)                                | 60 | --                                                                         | -- | 60 |
|    |                                                                               | Flue Gas Swept Surface | 87960                   |                                                                         | Red Oxide Zinc Phosphate Primer to IS: 12744 (Two Coats)                                | 60 | --                                                                         | -- | 60 |
| 04 | Chimney Base, Painters Trolley (other than SS) and Strakes– temp < 95°C       |                        | 87100<br>87200<br>87150 | Power Tool cleaning to St3 (SSPC-SP3)                                   | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744                                | 30 | Synthetic Enamel to IS2932 Shade: Smoke Grey Shade 692 of IS 5 (Two coats) | 40 | 70 |
| 05 | Platform Ladder and hand rails post, hand rails and floor grills & step tread |                        | 87200<br>87300          | Gratings-Blast cleaning to Sa 2½ Other Items Blast cleaning if required | Hot Dip Galvanizing to 610 gm/Sq. m (min) and to a coating thickness of 85 µm (minimum) |    |                                                                            |    |    |
| 06 | Other than sl.no.05 of platform structural items– temp < 95°C                 |                        | 87200<br>87300          | Power Tool cleaning to St3 (SSPC-SP3)                                   | One coat of Red Oxide Zinc Phosphate Primer to IS: 12744                                | 30 | Synthetic Enamel to IS2932 Shade: Smoke Grey Shade 692 of IS 5 (Two coats) | 40 | 70 |

| SI No | SURFACE LOCATION | PGMA | SURFACE PREPARATION | PRIMER |               | FINISH |               | TOTAL DFT IN (µm min.) |
|-------|------------------|------|---------------------|--------|---------------|--------|---------------|------------------------|
|       |                  |      |                     | PAINT  | DFT (µm min.) | PAINT  | DFT (µm min.) |                        |

## 6. PAINTING OF DAMAGED AREAS

Areas where paint has deteriorated badly by erosion and areas where the paint film has lost its adhesion property and where the steel has got rusted appreciably - these areas are to be repainted as per the following procedure:

| SL NO | SURFACE LOCATION                                                                                                 | SURFACE PREPARATION                                                                                                                                                      | PRIMER, INTERMEDIATE & FINISH                                                                                                                                                                                                                                          |
|-------|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1     | Paint damaged Components falling under sl.no. 37,38,39 of ESP                                                    | Surface preparation by manual cleaning. Minimum 6" of surrounding areas with existing coat to be roughened by wire brush & emery paper for best adhesion by patch primer | 1. Primer: One coat of Self priming Epoxy Zinc rich primer to IS:14589 Gr. II to DFT of 70 µm (min.)<br>2. Intermediate and Finish: As given in respective scheme as above<br>3. If primer is intact, intermediate and finish to be done as per the respective scheme. |
| 2     | Paint damaged components falling under other sl. Nos. of APH, Fans, Gate & Damper, ESP & Chimney for Aux. boiler |                                                                                                                                                                          | Primer and Finish: As given in respective scheme                                                                                                                                                                                                                       |

## 7. GENERAL NOTES

- No painting is required for Galvanized, non-ferrous & stainless-steel items, except as indicated above.
- Machined items are to be applied with coat of temporary rust preventive oil
- PGMAs covered in sub-supplier (i.e., Purchased) items viz., support bearing / slide bearing and other sub-delivery components of ESP etc., are not indicated in the above list. However, the Painting Schedule for all items supplied by all sub-suppliers and BOI under the scope of BHEL shall be same as for main equipment covered in this document. For all site erection shop materials Red Oxide Zinc Phosphate Primer shall be applied to meet the temporary protection.
- In sub-assembly, wherever plates / sheets of thickness less than or equal to 5mm and rods are used, very minor items like clamps, small items etc. tiny items of weight less than 25 Kg - Power Tool or Hand Tool Cleaning to SSPC - SP 3 / SP 2 and painting as per FAN, sl. No. 6 shall be followed.
- DFT shall meet the specified value. In case of non-meeting of DFT in number of coats specified, subsequent coats shall be applied to meet specified DFT.
- All components covered under different PGMAs are to painted. In case any component is left out, the same shall deemed to be included under the relevant section.
- All threaded and other surfaces of foundation bolts and its materials, insulation pins, Anchor channels, Sleeves, HSFG bolts shall be coated with temporary rust preventive fluid and during execution of civil works; the dried film of coating shall be removed using organic solvents.
- Weld edges made for site welding shall be manual cleaned by wire brush and shall be applied with weldable primer.
- All steel structures shall be provided with painting as given in the specification. Further, painting system shall also meet the requirements of corrosivity category C3 (durability high) as per ISO 12944.
- Heat resistant aluminum paint – the usage of Gr – I or Gr – II in place of Gr – III or Gr – I in place of Gr-II is technically acceptable.
- The primer coat shall be applied in shop immediately after blast cleaning by airless spray technique. Intermediate coat shall be applied in shop after an interval of minimum 24 hours (from the application of primer coat) by airless spray technique.

| SI No | SURFACE LOCATION | PGMA | SURFACE PREPARATION | PRIMER |               | FINISH |               | TOTAL DFT IN (µm min.) |
|-------|------------------|------|---------------------|--------|---------------|--------|---------------|------------------------|
|       |                  |      |                     | PAINT  | DFT (µm min.) | PAINT  | DFT (µm min.) |                        |

## 8. PAINTING SCHEME – DETAILS OF PROCUREMENT & APPLICATION PROCESSES

| SL NO | TYPE OF PAINT                                                                | SPECIFICATION OF PAINT | NO OF PACK | VOLUME OF SOLIDS (% MIN) | MODE OF APPLICATION | OVER COATING INTERVAL (IN HOURS) | SHADE                                        |
|-------|------------------------------------------------------------------------------|------------------------|------------|--------------------------|---------------------|----------------------------------|----------------------------------------------|
| 01    | Epoxy Zinc phosphate primer                                                  | IS 13238               | 2          | 40                       | Spray               | 24                               | Grey                                         |
| 02    | Zinc Ethyl silicate primer (% Zn on dry film= 80 (min))                      | IS 14946               | 2          | 60                       | Airless Spray only  | 24                               | Grey                                         |
| 03    | Epoxy High solid-Polyamide cured Epoxy based MIO pigmented intermediate coat | --                     | 2          | 80                       | Airless Spray       | 16                               | Brown                                        |
| 04    | Aliphatic acrylic polyurethane paint                                         | IS 13213               | 2          | 55                       | Airless Spray       | 16                               | Dark Admiralty Grey to Shade No. 632 of IS 5 |
| 05    | Heat resistant aluminum paint                                                | IS 13183               | 1          | --                       | Brush/ Spray        | 24                               | --                                           |
| 06    | Chlorinated rubber-based zinc phosphate primer                               | --                     | 1          | 40                       | Brush/ Spray        | 12                               | Grey                                         |
| 07    | Long oil alkyd Synthetic enamel finish paint                                 | IS 2932                | 1          | 35                       | Brush/ Spray        | 12                               | Corresponding shade no                       |
| 08    | Red oxide Zinc phosphate primer                                              | IS 12744               | 1          | --                       | Brush/ spray        | 12                               | --                                           |

**Note: Application of paint as per paint/ primer manufacturer's instruction**

| SI<br>No | SURFACE LOCATION | PGMA | SURFACE<br>PREPARATION | PRIMER |                           | FINISH |                           | TOTAL<br>DFT IN<br>( $\mu$ m<br>min.) |
|----------|------------------|------|------------------------|--------|---------------------------|--------|---------------------------|---------------------------------------|
|          |                  |      |                        | PAINT  | DFT<br>( $\mu$ m<br>min.) | PAINT  | DFT<br>( $\mu$ m<br>min.) |                                       |

## 9. PAINTING REQUIREMENTS AS STIPULATED IN TENDER DOCUMENT

| SL<br>NO | AREAS                                                                          | TENDER DOCUMENT REFERENCE                                                                                                                               |
|----------|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| 01       | ESP and Auxiliaries like ESP, APH, Fans, GAD (Insulated parts / flue gas path) | Technical specification Annexure-I, Vol. II-A / Section-XII / Sub-Section-B Painting, Painting Scheme for C2 and C3 environment, Page 18 of 24 S. No 3. |
| 02       | Structures of ESP, Packer plates, Base frames of motor and actuators           | Technical specification Annexure-I, Vol. II-A / Section-XII / Sub-Section-B Painting, Painting Scheme for C2 and C3 environment, Page 18 of 24 S. No 1. |
| 03       | ESP and Auxiliaries like ESP, APH, Fans, GAD (Miscellaneous components)        | Technical specification Annexure-I, Vol. II-A / Section-XII / Sub-Section-B Painting, Painting Scheme for C2 and C3 environment, Page18 of 24 S. No 6.  |
| 04       | Galvanizing of gratings, hand railings and ladders                             | Technical specification Annexure-I, Vol. II-A / Section-XII / Sub-Section-B Painting, Painting Scheme for C2 and C3 environment, Page18 of 24 S. No 27. |