



NTPC SAIL POWER COMPANY (P) LIMITED
ROURKELA POWER PROJECT
(PP – III: 1 X250MW)



TECHNICAL SPECIFICATION FOR
EPC PACKAGE

Equipment

		GROUND COLOUR		IDENTIFICATION TAG/BAND			
Sl. No.	Equipment	Colour	RAL	Colour	ISC No.	Equi-valent RAL No.	Remarks
	bldg.						
	- 6.6 KV busduct outside of main plant building	Blue	5012				
74	33 KV SWGR cubicle	Grey & Blue	9002 5012				Front & Rear Panels in Grey (RAL 9002). End Panels sides in Blue (RAL 5012)
	- CR Panels	Grey	9002				
	- Surge protection cubicle	Grey	9002				
75.	Control and console inserts	Grey	9002				
76.	Electronic system cabinets, computer system cabinets, BMS, ATRS, EHC system etc. (Control equipment room)	Blue & Grey	5012& 9002				Front & Rear Panels in Grey (RAL 9002). End Panels sides in Blue (RAL 5012)
77	All locally mounted C&I systems panel cabinets local (External)	Blue & Grey	5012& 9002				Front & Rear Panels in Grey (RAL 9002). End Panels sides in Blue (RAL 5012)
78.	Intercom	Equipment					



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Sl. No.	Equipment	Colour	RAL	Colour	ISC No.	Equi-valent RAL No.	Remarks
	- Hand sets unit	Grey	9002				
	- Hand sets plant	Grey	9002				
79	- Metal containers/ cable junction boxes	Grey	9002	White		9010	
80.	LIGHTING EQUIPMENT/PANELS						
	- Exterior	Grey	9002				
81.	Unit Heaters	Grey	9002	Signal Red	537	3001	Legend in Black letters.
82.	SWITCHYARD EQUIPMENTS						
	I. Control and relay panels (control equipment room and switchyard control room)	Blue & Grey	5012 & 9002				Legend in Black letters. Ends in Blue. Front & Rear in Grey.
	II. PLCC	Blue & Grey	5012 & 9002				Legend in Black letters. Ends in Blue. Front & Rear in Grey
83.	Switchyard CB, Isolators, CTs, PTs, Lighting arrestors, Wave Traps, CVTs, Marshalling boxes, JBs, Local Panels	Grey	9002				



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Sl. No.	Equipment	Colour	RAL	Colour	ISC No.	Equivalent RAL No.	
84.	Porcelain parts like insulators	Brown	As per IS				Possibility of Using Grey Shade be explored
85.	Generator Relay panels (GRP's)	Grey & Blue	9002				
86.	All other Structures and equipment.	Grey	9002				
87.	INSTALLATION MATERIALS						
	- Resin Tubes	Grey	9002				Legend in black letters.
	- Steel Tubes						Legend in black letters.
88.	Gang ways and trays	Grey	9002				Legend in black letters.
89.	Misc. steel structures (trellies, Portals, brackets)	Grey & Blue	9002 & 5012				Primary Structural members (Columns & Beams) in Blue. Secondary members in Grey.
90.	Storage boxes	Grey	9002				Legend in black letters.
91.	INSULATING OIL TREATMENT PLANT						
	- Tanks and the equipment	Grey	9002	White		9010	Legend in Black Letters

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Equipment

		GROUND COLOUR		IDENTIFICATION TAG/BAND			
Sl. No.	Equipment	Colour	RAL	Colour	ISC No.	Equi-valent RAL No.	Remarks
92.	IDENTIFICATIONS PLATES						
	Mechanical equipment's and piping						
	- Background	White	9010				
	- Border	Black	9011				
	- Lettering	Black	9011				

- Note: 1) For mechanical equipments ground colour indicated against each equipment shall be followed in case equipment is not insulated/cladded.
- 2). However if enclosure is provided for the mechanical equipments, then the indicated ground colour for mechanical equipment shall be followed



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APPENDIX-B

B. Pipelines

		Ground Colour		Identification Tag/ Band Colour				
S. No.	Medium	Colour	RAL	COLOUR	ISC Nu	RAL #	Legend	Remarks
1.	WATER							
a.	Untreated or Raw/service	Grey	9002	Sea Green	217		RW/SW	
b.	Treated/ Demineralised	Grey	9002	Sea Green	217		DMW	
c.	Condensate	Grey	9002	Sea Green	217		MC	
i.	LP bypass spray	Grey	9002	Sea Green	217		LPBA	
ii.	Condensate Makeup line to condenser from surge tank and from DM Supply header	Grey	9002	Sea Green	217		CCM	
d.	Boiler feed	Grey	9002	Sea Green	217		BFD	
i.	HP bypass attemperation	Grey	9002	Sea Green	217		HPBA	
ii.	Super heater attemperation	Grey	9002	Sea Green	217		SHA	
iii.	Reheater attemperation	Grey	9002	Sea Green	217		RHA	
IV.	Aux. PRDS	Grey	9002	Sea Green	217		APRDSA	

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		Ground Colour		Identification Tag/ Band Colour			Legend	Remarks
S. No.	Medium	Colour	RAL	COLOUR	ISC No	RAL #		
	attemperation							
2.	STEAM							
a.	Main	Aluminium*		Signal Red	537	3001	MS	*Aluminium is to be used only in case Where the pipes are not already clad with aluminium sheets.
b.	Auxiliary	Aluminium*		Signal Red	537	3001	AS	
c.	Bled (Extraction)	Aluminium*		Signal Red	537	3001	1 EX 2 EX 6 EX	
d.	Hot reheat	Aluminium*		Signal Red	537	3001	HR	
e.	Cold reheat	Aluminium*		Signal Red	537	3001	CR	
f.	HP bypass	Aluminium*		Signal Red	537	3001	HPB	
g.	LP bypass	Aluminium*		Signal Red	537	3001	LPB	
h.	Exhaust/vent (open to atmosphere) and safety valve	Aluminium*		Light Brown	537	3001	V/SVE	Hazard mark may be given



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S. No.	Medium	Ground Colour		Identification Tag/ Band Colour			Legend	Remarks
		Colour	RAL	COLOUR	ISC No	RAL #		
3.	AIR							
a.	Instrument	Grey	9002	Sky blue	101		IA	
b.	Service/Plant	Grey	9002	Sky blue	101		PA	
c.	Vacuum	Grey	9002	Sky blue	101		VC	
4.	AIR STEAM MIXTURE							
a.	From turbine glands to gland steam condenser	Aluminium*		Sky Blue	101		ASM	*Aluminium is to be used only in cases where the pipes are not already clad with aluminium sheets.
b.	From condenser	Aluminium*		Sky Blue	101		ASM	*Aluminium is to be used only in cases where the pipes are not already clad with aluminium



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S. No.	Medium	Ground Colour		Identification Tag/ Band Colour			Legend	Remarks
		Colour	RAL	COLOUR	ISC No	RAL #		
								sheets.
c.	From heater shells to condenser	Aluminium*		Sky Blue	101		ASM	*Aluminium is to be used only in cases where the pipes are not already clad with aluminium sheets.
5.	GAS							
a.	Natural gas	Grey	9002	Canary yellow	309		NG	*Hazard mark is given
b.	Other fuel gas	Grey	9002	Canary yellow	309			
c.	Hydrogen	Grey	9002	Canary yellow	309		H	
d.	Nitrogen	Grey	9002	Canary yellow	309		N	
e.	Chlorine	Grey	9002	Canary yellow	309		Cl	
f.	Carbon dioxide	Grey	9002	Canary yellow	309		CO2	
g.	Non condensable	Grey	9002	Canary yellow	309		NCG	



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S. No.	Medium	Ground Colour		Identification Tag/ Band Colour			Legend	Remarks
		Colour	RAL	COLOUR	ISC No	RAL #		
	gas mixtures							
h.	Oxygen	Grey	9002	Canary Yellow	309		O	
6.	OILS							
a.	High speed diesel	Grey	9002	Light * brown	410		HSD	* Hazard Mark
b.	Furnance oil	Grey	9002	Light * brown	410		FO	* Hazard Mark
c.	Lubricating oil (including governing oil if lub oil is used for governing purposes)	Grey	9002	Light brown	410		LO	* Hazard Mark
d.	Hydraulic power	Grey	9002	Light brown	410		HYD.O	
e.	Control fluid	Grey	9002	Light brown	410		CR.O	
f.	Transformer oil	Grey	9002	Light brown	410		TR.O	
7.	PULVERIZED FUEL	Grey	9002	Silver grey	628		PF	
8.	FIRE INSTAL-LATIONS	Fire Red	536 (ISC) 3001 (RAL)	White		9010	FIRE	Legend in Red Letters over White Background



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		Ground Colour		Identification Tag/ Band Colour				
S. No.	Medium	Colour	RAL	COLOUR	ISC No	RAL #	Legend	Remarks
9.	CHEMICAL FEED							
a.	HP dosing to boiler (Phosphate)	Groy	9002	Dark admiralty grey	632		HCF	Legend in Black Letters
b.	LP dosing to condensate (Hydrazine/ Ammonia)	Grey	9002	*Signal Red	537	3001	LCF	*Hazard mark is given
10.	ACID PIPING (in water treatment plant)	Grey	9002	*Signal Red	537	3001	+	+Name of the chemical (formula) to be used as legend for identifying the individual acids & alkalis
11.	ALKALI PIPING (in water treatment plant)	Grey	9002	*Signal Red	537	3001		*Hazard mark is given
12.	ASH PIPE	Grey	9002	French Blue	166		ASH	
13.	IMPULSE PIPING	Grey	9002	Same as process piping				

Note: Ground colour indicated against each piping shall be followed in case piping is not insulated /cladded.

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02.10.00 Paint Application

- 02.10.01 Paint will be applied in accordance with manufacturer's recommendations. The work will generally follow IS 1477 (Part II) for jobs carried out in India and SSPC-PA-I or DIN 55928 or equivalent for jobs carried out outside India. Touch up paint to be applied to cover scratches after erection and assembly of equipment at site.
- 02.10.02 Paint will not be applied when the ambient temperature is 5 deg. C and below. Also paint will not be applied in rain, wind, fog or at relative humidity of 80% and above.
- 02.10.03 Each coat of paint will be continuous, free of pores and of even film thickness without thin spots. The first coat of finish paint at site will be applied preferably within three months of the shop paint.
- 02.10.04 Each coat of paint will be dry sufficiently before application of next coat.
- 02.10.05 Surface which cannot be painted but require protection will be given a coat of rust inhibitive grease according to IS:958-75 or solvent deposited compound according to IS:1153-75 or IS:1674-60.
- 02.10.06 Surface which will be inaccessible after assembly will receive minimum coats of specified primer. Surfaced to be in contact with wood, brick or other masonry will be given one shop coat of the specified primer.
- 02.10.07 Parts of steel structure to be embedded in concrete will be given a protective coat of Portland cement slurry immediately after fabrication and thoroughly cleaning the surfaces from grease, rust, mill scales etc. No paint will be applied on this part.
- 02.10.08 The Bidder will furnish paint manufacturer's test report or technical data sheet pertaining to the paint selected. The data sheet will indicate among other things the relevant standards, if any, composition in weight percent of pigments, vehicles, additives, drying time, viscosity, spreading rate, flash points, methods of application, quality of surface preparation required, corrosion resistance properties and colour.
- 02.10.09 Rust preventive coating will be given to HSFG bolt and nut threads.
- 02.10.10 Machined surfaces / weld edges will be applied with a coating of temporary rust preventive oil.
- 02.10.11 All threaded and other surfaces of foundation bolts and its materials, insulation pins, anchor channels, sleeves will be coated with temporary rust preventive fluid and during execution of civil works; the dried film of coating will be removed using organic solvents.
- 02.10.12 The temporary rust preventive coating that already been applied on any components, tubes, pipes etc., will be removed by suitable solvents/ heating to 350-400 Deg.C for an hour before primer paint application-but, in case, it will be

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ensured that the minimum surface cleanliness required for primer paint application will be Sp2 (equivalent to hand tool cleaning).

- 02.10.13 In components, wherever plates/sheets of thickness less than or equal to 5mm, pipes, rods are used, power tool / hand tool cleaning to SP3/SP2 will be followed and the painting will be done as per the painting scheme adopted for components that are coming in the flue gas path.
- 02.10.14 All weld edge preparation for site welding will be applied with one coat of weldable primer.
- 02.10.15 For internal protection of pipes/tubes, VCI pellets will be used at both ends after sponge testing and ends capped. VCI pellets will not be used for SS components and composite assemblies.
- 02.10.16 Wherever inside surfaces of ducts need protection till erection, two coats of red oxide zinc phosphate primer (P1) paint to IS 12744 to a DFT of 60 microns will be applied after power tool cleaning.
- 02.11.00 Painting scheme**
- 02.11.01 For a complete painting scheme of any item being painted, all types of paints are to be procured from the same manufacturer as approved by the Owner.
- 02.11.02 The painting scheme to be followed for various mechanical/ electrical equipment / structures is briefly given below for guidance to the Bidder.

Legend

SP	Surface preparation quality
P	Primer Paint
2P1 stands for	Two (2) coats of primer paint type P1
N	Intermediate paint
1N 1	One (1) coat of intermediate paint type 1
F	Final Paint
2F1 stands for	Two (2) coats of finish paint type F1
DFT	Dry film thickness
CRT	Clean and retouch
Sa - 2.5	Quality of surface cleaning (i.e. 95 % of the surface area is free from all rust, mill scales and visible residues, foreign materials etc.



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02.11.03

Painting Scheme

Sl no.	Description	Surface Preparation	Painting Scheme		Total DFT in micron
			At shop	At site	
1	Steel Structure	Sa 2½	2P1+1N1	2F1	200
2.	Mechanical equipment (temp. not over 80 deg. C) Both static and rotary equipment	Sa 2½	2P1+1 N1	2F1	200
3.	Equipment with hot surfaces (temp. upto 400 deg. C)	Sa 2½	2P2	2F2	130
4.	Equipment with hot surfaces (temp. above 400 deg.C)	Sa 2½	2P3	2F3	170
5.	Non insulated pipe/duct works Temperature not over 80 °C - Temperature upto 200 °C - Temperature upto 400 °C	Sa 2½	2P1+1N1 2P2 2P3	2F1 2F2 2F3	200 50 170
6.	Insulated pipe/duct works	St3	2 coats of Alkyd Red Oxide Zinc Phosphate primer to IS 12744 - DFT - 30µ/coat	Not required	60µ
7.	Condensate piping, ACW, DMCW, service water, potable water and minor structures etc.	Hand tool/ Power tool cleaning to SSPC-SP2	2 coats of HB Chlorinated rubber based red oxide zinc phosphate primer each 50µ	2 coats of Chlorinated rubber based finish paint each 30µ	160µ



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Sl. No.	Description	Painting scheme		Total DFT in Microns
		At shop	At site	
1.	Boiler drum (except Internals) , Drum suspension	a) Surface preparation : Power tool cleaning to St-3 grade b) 2 coats of alkyd red oxide zinc phosphate primer to IS 12744 DFT 30 micron per coat c) 3 coats of long oil alkyd synthetic enamel finish paint (International Orange) to IS 2932 – DFT 20 microns / coat (min) d) Total DFT 120 microns (min)	-	120
2.	Boiler drum Internals	SP 1 or SP 3 Rust preventive fluid of DFT=25 µ/coat		25
3.	Following insulated parts viz., Piping,fitting/compon ents, Pipe clamps, vessels/tanks, Equipments and ducts etc	SP 3 2P1, Total DFT – 60 microns P1 = pack of air drying alkyd red oxide zinc phosphate primer to IS 12744 – 2 coats, 30 microns per coat. Total DFT 60 microns (minimum)	-	60
4.	Following un insulated parts viz., Piping,fitting/compon ents,Pipe clamps, vessels/tanks, Equipments and ducts etc	a) Surface preparation : Power tool cleaning to St-3 grade b) 1 coat of alkyd red oxide zinc phosphate primer to IS 12744 DFT 30 micron per coat c) 2 coats of long oil alkyd synthetic enamel finish paint to IS 2932 – DFT 20 microns / coat (min) d) Total DFT 70 micron (min)	1F2	70



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Sl. No.	Description	Painting scheme		Total DFT In Microns
		At shop	At site	
5.	Constant load hangers (CLH) & Variable Load hanger (VLH)	SP-Sa 2 1/2 1P2+1 F6	-	70
6.	Hangers mentioned other than (5) above	a) Surface preparation : Power tool cleaning to St-3 grade b) 1 coat of alkyd red oxide zinc phosphate primer to IS 12744 DFT 30 micron per coat c) 2 coats of long oil alkyd synthetic enamel finish paint to IS 2932 – DFT 20 microns / coat (min) d) Total DFT 70 micron (min)	-	70
7.	Valves			
8 a	Cast carbon steel valves Cast alloy steel valves, API valves, QCNRV, SV and SRV, Silencers and soot blower components	SP3 2F4	-	40
8.	Forged valves	a) Surface preparation : Solvent cleaning to SSPC-SP1 Grade. b) Phosphating to 16.15 g/sq.m.		
9.	Top covers of Soot blower	a) Surface preparation : Power tool cleaning to St-3 grade b) 1 coat of alkyd red oxide zinc phosphate primer to IS 12744 DFT 30 micron per coat c) 2 coats of long oil alkyd synthetic enamel finish paint to IS 2932 – DFT 20 microns / coat (min) d) Total DFT 70 micron (min)		70



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Sl. No.	Description	Painting scheme		Total DFT in Microns
		At shop	At site	
10.	Floor grills, hand rails and posts, ladders / rungs	Hot dip galvanizing to 610 gms/sq.m	-	-
11.	(a) Components coming in the flue gas path like water walls	a) Power tool cleaning to St- 2 / 3 b) One coat of dip – coat paint – Red oxide zinc phosphate primer (dip / brush) DFT = 30 microns		30
	(b) Components coming in the flue gas path, Surfaces in the flue gas path of ESP, Fans and APH	a) Power tool cleaning to St- 2 / 3 b) Two coats of dip – coat paint – Red oxide zinc PO4 to IS 12744 DFT = 30 microns per coat		60

NOTE: For components not covered above, Bidder's standard practice will be followed with Owner's / Consultant's approval.

**PAINTING SCHEME
(METALLIC STRUCTURAL WORKS)**

SURFACES TO BE PAINTED	SURFACE PREPARATION	PAINTING SCHEME		
		PRIMER AT SHOP	INTERM. AT SHOP	FINISHING AT SITE
1) CARPENTRY ANCHOR PLATES AND PIPELINE SUPPORT				
- OUTSIDE	SA 2.5	2P1	1N1	2F1
- INSIDE	SA 2.5	2P1	1N1	2F1
2) BRIDGE CRANE				
- STRUCTURE FOR RFAMS	SA 2.5	P1 + P1(S)	1N1 (S)	2F1



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PAINTING SCHEME
(METALLIC STRUCTURAL WORKS)

- TROLLEY	SA 2.5	2P1	1N1	2F1
3) HOISTS AND MONORAILS				
- MONORAILS	SA 2.5	2P1	1N1	2F1
- HOISTS	SA 2.5	2P1	1N1	2F1

PAINTING SCHEME
(THERMAL CYCLE)

SURFACES TO BE PAINTED	SURFACE PREPARATION	PAINTING SCHEME		
		PRIME R AT SHOP	INTER M. AT SHOP	FINISHING AT SITE
1) INSULATED PIPE LINE AND VALVES				
- STEAM	SA 2.5	2P1/2P 2/2P3	--	--
- FEEDWATER	SA 2.5	2P1/2P 2/2P3	--	--
2) DEAERATOR AND FEED TANK				
- FEED TANK INSIDE	SA 2.5	Temporary rust preventive paint 2P3 or 2 coats of Heat resistant aluminium paint.		
- OUTSIDE	SA 2.5			
- DEAERATOR OUTSIDE	SA 2.5	2P2 or 2 coats of Heat resistant aluminium paint.		
3) HEAT EXCHANGER				
- INSIDE	SA 2.5	--	--	--
- OUTSIDE	SA 2.5	2P1	1N1	--
4) HEATER				
- INSIDE	SA 2.5	--	--	--



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PAINTING SCHEME (THERMAL CYCLE)					
SURFACES TO BE PAINTED	SURFACE PREPARATI ON	PAINTING SCHEME			
		PRIME R AT SHOP	INTER M. AT SHOP	FINISHING AT SITE	
- OUTSIDE	SA 2.5	Heat resistant Aluminu m paint	--	--	
5) PUMPS	SA 2.5	2P1/2P2	1N1	2F1/2F2	
6) VENT					
7) NON INSULATED PIPELINE AND VALVES	SA 2.5	2P1/2P2 / 2P3	--	2F1/2F2/2 F3	
8) DRAINS, PIPELINE AND VALVES TRAPS ETC					
- INSULATED	SA 2.5	2P1/2P2 / 2P3	--	--	
- NON INSULATED	SA 2.5	2P1/2P2 / 2P3	--	2F2	
8) TANKS					
- OUTSIDE	SA 2.5	2P1/2P2	--	--	
- INSIDE	--	--	--	--	

PAINTING SCHEME (OIL + GAS-OIL CYCLE)				
SURFACES TO BE PAINTED	SURFACE PREPARATI ON	PAINTING SCHEME		
		PRIME R AT SHOP	INTERM. AT SHOP	FINISHIN G AT SITE
1) CLEAN / DIRTY OIL TANK				
- INSIDE	SA 2.5	2P4	--	--
- OUTSIDE	SA 2.5	2P1	1N1	2F1
2) PIPE LINE AND VALVES				



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PAINTING SCHEME (OIL + GAS-OIL CYCLE)				
SURFACES TO BE PAINTED	SURFACE PREPARATI ON	PAINTING SCHEME		
		PRIME R AT SHOP	INTERM. AT SHOP	FINISHIN G AT SITE
- OUTSIDE	SA 2.5	2P1/2P 2	1N1	2F1/2F2
- INSIDE	--	--	--	--
3) PUMPS				
- PUMPS	SA 2.5	2P1	1N1	2F1
4) FILTERS				
- OUTSIDE	SA 2.5	2P1/2P 1	1N1	2F1/2F2
- INSIDE	--	--	--	--

PAINTING SCHEME (CIRCULATING WATER AND SERVICE WATER)				
SURFACES TO BE PAINTED	SURFACE PREPARATI ON	PAINTING SCHEME		
		PRIME R AT SHOP	INTERM . AT SHOP	FINISHING AT SITE
1) CONDENSER				
- INSIDE	SA 2.5	--	--	--
- OUTSIDE	SA 2.5	2P1	1N1	2F1
- WATER BOX AND TUBE SHEET	SA 2.5	As per specification Volume IIA		
2) PUMPS	SA 2.5	2P1	1N1	2F1



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3) PIPELINE AND VALVES				
- INSIDE	SA 2.5	--	--	--
- OUTSIDE (OVER GROUND)	SA 2.5	2P1	1N1	2F1

**PAINTING SCHEME
(DEMINERALISED WATER)**

SURFACES TO BE PAINTED	SURFACE PREPARATION	PAINTING SCHEME		
		PRIME R AT SHOP	INTERM . AT SHOP	FINISH ING AT SITE
1) PIPELINE AND VALVES				
- INSIDE	--	--	--	--
- OUTSIDE	SA 2.5	2P1	1N1	2F1
2) PUMPS				
- PUMPS	SA2.5	2P1	1N1	2F1

**PAINTING SCHEME
(AIR CYCLE)**

SURFACES TO BE PAINTED	SURFACE PREPARATION	PAINTING SCHEME		
		PRIME R AT SHOP	INTERM . AT SHOP	FINISHIN G AT SITE
1) PIPE LINE AND VALVES (SA)				
- OUTSIDE	SA 2.5	2P1	1N1	2F1



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ROURKELA POWER PROJECT
(PP - III: 1 X250MW)



TECHNICAL SPECIFICATION FOR
EPC PACKAGE

PAINTING SCHEME (AIR CYCLE)				
SURFACES TO BE PAINTED	SURFACE PREPARATI ON	PAINTING SCHEME		
		PRIME R AT SHOP	INTERM AT SHOP	FINISHIN G AT SITE
- INSIDE	--	--	--	--
2) FILTERS / STRAINERS				
- OUTSIDE	SA 2.5	2P1	1N1	2F1
- INSIDE	--	--	--	--

Note : For Piping, Supports, Hangers, CLH, VLH & Other piping system components/ items Painting Scheme as indicated in following table is also acceptable.



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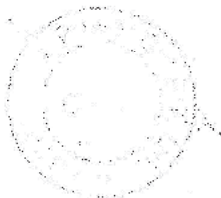
TECHNICAL SPECIFICATION FOR
EPC PACKAGE

Sl. No.	Description	Surface Preparation & Surface Profile	Primer Coat		Finish Coat			
			Primer Coat	No of coats & DFT	Paint	No of coats & DFT	Shade	Total DFT Microns (Min.)
1	Insulated Piping, Components (MS/HRH/C RH/Aux Steam lines)	SSPC-SP3/Power Tool cleaning	Red oxide Zinc Phosphate Primer (Alkyd Base) to IS 12744	2 (30 microns per coat)	----	----	----	60
2	Uninsulated Piping, components (Condensate, Boiler Filling, HP/LP dosing, Lube oil, Piping.....)	Hand Tool/Power Tool Cleaning to SSPC-SP2	HB Chlorinated Rubber based Red Oxide 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
3	Structures	Hand Tool/Power Tool Cleaning to SSPC-SP2	HB Chlorinated Rubber based Red Oxide 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	Hangers & Supports- (CLH, VLH)	Abrasive Blast cleaning to Sa 2 (35-50 microns)	Epoxy Zinc rich primer to IS 14589 Gr.II,% VS=35 Min	1 (40 microns per coat)	Aliphatic Acrylic Polyurethane paint, % VS=40 min	1 (30 microns per coat)	Phirozi Blue Shade No. 176 of IS 5	70
5	Pipe Clams	SSPC-SP3/Power Tool cleaning	Red oxide Zinc Phosphate Primer (Alkyd Base) to IS 12744	1 (30 microns per coat)	Synthetic enamel paint long oil alkyd to IS 2932	1 (20 microns per coat)	Smoke Grey Shade No 692 of IS 5	70
6	Stainless steel/Galvanized items	No Paint	No Paint	No Paint	No Paint	No Paint	No Paint	No Paint

	NTPC SAIL POWER COMPANY (P) LIMITED ROURKELA POWER PROJECT (PP – III: 1 X250MW) TECHNICAL SPECIFICATION FOR EPC PACKAGE	
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03.00.00 SUBMISSION OF PAINTING SCHEDULE

Bidder will submit a comprehensive painting schedule indicating surface preparation quality, paint applied, total DFT, colour code etc. for Customer/ consultant's approval before the painting of any equipment/ component/ structure etc.



Rourkela Power Project (PP – III: 1x250 MW) EPC Package	Technical Specification Section – VI, Vol. – IIG, Bid Doc. No.: CC&M-C-347-211	Part - C, Painting	Page 43
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