

VOLUME-I

ANNEXURE-B (Vendor List)



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NTPC SAIL POWER COMPANY (P) LIMITED
ROURKELA POWER PROJECT
(PP – III : 1X250 MW)



TECHNICAL SPECIFICATION FOR
EPC PACKAGE

VENDOR LIST

SL. NO.	VENDOR LIST FOR
1	Steam Generator
2.1	Steam Turbine & Aux.
2.2	Turbine Aux.
3	Generator Auxiliaries
4	C&I
5.1	Coal Handling Plant
5.2	Ash Handling Plant
5.3	FDPS
5.4	CW System
5.5	Make up water piping
5.6	Air conditioning & ventilation
5.7	Low pressure piping & Fuel oil handing system
5.8	Cooling Tower
5.9	Water Treatment Plant
6.1	Electrical Auxiliaries
6.2	Cabling, DG Set, Battery & Battery charger
6.3	HD Bus Duct & Switch Yard
6.4	CHP Electrical
6.5	LT Switchgear & LT Busduct
6.6	HT Power cables, LT Power Cables, Control cables
6.7	HT Swithgear
7	Civil Works

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1. Steam Generator

SL. NO.	ITEM	PROPOSED SUB SUPPLIER
1.	CRITICAL PIPING / PCP (MS. CRH, HRH & FW)	BHEL, TRICHY
		ALSTOM, DURGAPUR
		DOOSAN, KOREA
		BHR (BILFINGER PIPING TECH GMBH), GER MANY
		SEONGHWAIND CO LTD., KOREA
		DEE DEVELOPMENT, PALWAL
2.	MISC HP PIPING EXCLUDING CRITICAL PIPING (CS & ALLOY STEEL UPTO GR P-22)	DEE DEVELOPMENT, PALWAL
3.	MISC HP PIPING EXCLUDING CRITICAL PIPING (CARBON STEEL)	UNITECH MACHINES LTD, SAHARANPUR
	MISC HP PIPING EXCLUDING CRITICAL PIPING (CARBON STEEL)	DEE DEVELOPMENT, PALWAL
		BEND JOINTS P. LTD, BHOPAL
		FLASH FORGE, VIZAG
		S&G, PAWEL
		SEAM INDUSTRIES P. LTD., NAGPUR
4.	NON IBR PIPING / LP PIPING (PR UPTO 10 KSC)	S&G, PAWEL
		BEND JOINTS, BHOPAL
		DEE DEVELOPMENT, PALWAL
		GUJARAT INFRA, VADODRA
5.	FITTINGS (Spl class)	GAM RACCORDI SPA, ITALY
		MEGA SPA, ITALY
		IBF SPA, ITALY
		BGH EDESLSTAHL SEIGEN GMBH, GERMANY
		SUNGKWANG BEND CO. LTD., KOREA
		PETROL RACCORD SPA, ITALY
		TF TECH CO. LTD., KOREA
		BASSILUIGI SPA, ITALY
		BRUCK STRASSE 16 ENSHEIM, GERMANY
		TECHNO FORGE SPA, ITALY
		ERNE FITTINGS GMBH, AUSTRIA
		BOKYOUNG METAL CO, KOREA
	FITTINGS (SPL CLASS)	ALLIED SRL, ITALY





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		TK CORP, KOREA
		FLASH FORGE, VIZAG
6.	FITTINGS (CS, SS & AS UPTO GR 22)	MAIN CONTRACTOR APPD VENDORS
7.	SEPARATOR & STORAGE TANKS	ALSTOM, USA
		ALSTOM, DURGAPUR
		BHEL, TRICHY
		DOOSAN KOREA
8.	HEADERS AND SUCTION MANIFOLDS	DPSI, CHENNAI
		ALSTOM, USA
		DOOSAN, KOREA
		ALSTOM, USA
		DOOSAN VINA, VIETNAM
9.	TUBULAR PRODUCTS (COILS & PANELS)	RAFACO SA, POLAND
		BHEL, TRICHY
		TBWES, SATARA
		KRASNY, RUSSIA
		SHANGHAI BOILER, CHAINA
		ALSTOM, USA
		DOOSAN VINA, VIETNAM
		MEERANER, GERMANY
		DOOSAN, KOREA
		DOOSAN, KOREA
		ALSTOM, DURGAPUR
		BABCOCK HITACHI PHILLIPPINES INC. , PHILLIPINES
10.	DESUPERHEATER (BOILER)	ALSTOM, DURGAPUR
		DOOSAN, KOREA
		DOSI, CHENNAI
		DOOSAN, KOREA
		CCI, SWEDEN
		BHEL, TRICHY
11.	AUX PRDS UNIT (INCLUDING CONTROL VALVE)	NIPPON FISCHER, JAPAN
		CCI, SWEDEN
		WELTEND TUXHORN, GERMANY
		MASONELAN, FRANCE
		COPES VULCAN, UK
	AUX PRDS UNIT (INCLUDING CONTROL VALVE)	INSTRUMENTATION LTD, PALGHAT
		HORA, GERMANY
		FISCHER CONTROL, UK
12.	START UP SYSTEM PUMPS (BOILER CIRCULATION)	HAYWAR TAYLOR, UK



	NTPC SAIL POWER COMPANY (P) LIMITED ROURKELA POWER PROJECT (PP – III : 1X250 MW) TECHNICAL SPECIFICATION FOR EPC PACKAGE	
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	PUMP)	
		KSB AG, GERMANY
		TORISHIMA, JAPAN
13.	AUXILIARY BOILER	ISGEC, YAMUNANAGAR
		THERMAX, PUNE
		BHEL, TRICHY
14.	HANGER & SUPPORTS (INCLUDING CLH & VLH)	MANNESMANN, GERMANY
	HANGER & SUPPORTS (INCLUDING CLH & VLH)	MID AMERICA, USA
		LISEGA, GERMANY
		GILARDINI, ITALY
		CARPENTER PATTERSON, UK
		ITT, GERMANY
		SANWA TAKI, JAPAN
		PIPE SUPPORTS, UK / THAILAND
		WOOKWANG, KOREA
		UNISON, KOREA
	HANGER & SUPPORTS (INCLUDING CLH & VLH)	BROWICK, UK
		MH, SPAIN
		BHEL, TRICHY
		LISEGA, CHINA
		BERGEN PIPE SUPPORTS INDIA, CHITTOR
15.	SNUBBERS	SANWATAKI, JAPAN
		ITT GRINELL, GERMANY
		PIPE SUPPORTS, UK
		LISEGA, GERMANY
		CARPENTER PATTERSON, UK
16.	SOOT BLOWERS (LRSB, WALL DESALGGER, ROTARY BLOWER, TEMP PROBE)	BHEL, TRICHY
		CLYDE BERGEMANN GMBH, GERMANY
		DAIMOND POWER SPECIALITY LTD, SCOTLAND
		BHEL, TRICHY/GOINDWAL
		CLYDE BERGEMANN GMBH, NOIDA
		SHANGHAI CLYDE BERGEMANN MACHINERY, CHINA
17.	WIND BOX TT BURNER ASSY & AA PORT	BHEL, TRICHY
		DOOSAN, KOREA
	WIND BOX TT BURNER ASSY & AA PORT	SIGMA POWER, TRICHY
18.	AIR COOLED OIL GUN ASSEMBLY	BHEL, TRICHY



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19.	HFO/LFO PUMPS (SCREW PUMPS)	KRAL, AUSTRIA
		ALLWEILER, GERMANY
		ALEKTON, CHENNAI
		BOURMANN, GERMANY
		TUSHACO PUMPS, DAMAN
		LEISTRITZ, GERMANY
		ROTO PUMPS, NOIDA
20.	OIL PREHEATING & PRESSURISING SKID ASSY	UHE, COIMBATORE
		BHEL, TRICHY
21.	CHEMICAL DOSING PUMP (LP)	TECHNO CONSULTANTS, MUMBAI
		WHASUNG SYSTECH CO LTD, KOREA
		METACHEM, MUMBAI
		VK PUMPS, NASIK
		MILTON ROY, CHENNAI
		KYUNGIL WATER ENG CO LTD., KOREA
		POSITIVE METERING SYS, NASIK
	CHEMICAL DOSING PUMPS (LP)	JAMSU CHEMICALS CO LTD, KOREA
		SWELORE, AHMEDABAD
22.	CHEMICAL DOSING SYSTEM (SKID ASSY)	PSI ENGRS, CHENNAI
		POSITIVE METERING, NASIK
		POWER PIPING, TRICHY
		MILTON ROY, CHENNAI
		TECHNO CONSULTANTS, MUMBAI
		SWELLORE, AHMEDABAD
23.	SG CW BOOSTER PUMP / ECW PUMP	JYOTI, BARODA
		BECON WEIR, CHENNAI
		KIRLOSKAR, WADI
		FLOWMORE, GHAZIABAD
		KSB, PUNE
		WPIL, GHAZIABAD
		SAM PUMPS, COIMBATORE
		MATHER & PLATT, PUNE
		SULZER INDIA, NAVI MUMBAI
24.	PLATE HEAT EXCHANGERS	TRANTE4R IND PVT. LTD., PUNE
		GEA ECO FLEXL, GERMANY
		IDMC, ANAND
		ALFA LVEL, PUNE
		MYTEC CO LTD., KOREA
25.	TANKS & VESSELS (FLASH TANK ETC)	UNITECH MACHINES LTD.,



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		SHARANPUR
		SEAM IND P. LTD., NAGPUR
		SOUTHERN HEAVY ENGG & FAB PVT. LTD., CHENNAI
		SHAKTI HI TECH CONST. PVT. LTD., CHENNAI
		SV TANKS & VESSEL, MUMBAI
		PROGEN SYSTEM TECH LTD., CHENNAI
	TANKS & VESSEL (IBD, CBD, FLASH TANK ETC)	KPHE, KOREA
26.	CCNVENTIONAL VALVES	BHEL, TRICHY
		L&T VALVES, COIMBATORE
		VELAN VALVE CORP, USA
		SAMSHIN, KOREA
		VELAN VLAVES LTD., UK
		VELAN, H4T1G2 MONTREAL CANADA
		VELAN, PORTUGAL
		NITON VALVES, NAVI MUMBAI
		VELAN, QUEBEC / CANADA
		NITON VLAVES, AURANGABAD
		VELAN, H4T1X8 MONTREAL CANADA
		KSB, INDIA
		SHENJIANG VALVES, JAPAN
		BDK, HUBLI
		XOMOX SANMAR, COIMBATORE
		HP VALVES, NETHERLANDS
		TOA / MEWA, JAPAN
		LEADER VALVES, JALANDHAR
27.	SAFETY VALVE	BOPP & REUTHER, GERMANY
		RIENEKE GMBH, GERMANY
	SAFETY VALVES	DRESSER INDUSTRIES, USA
		BHEL, TRICHY
		SEMPELL AG, GERMANY
		BOPP & REUTHER, GERMANY
		FUKUI, JAPAN
		TYCO CROSSBY, USA
		MEIWA COR (TOA), JAPAN
		SEMPELL AG, GERMANY
28.	ERV	DRESSER INDUSTRIES, USA



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		VALVE TECHNOLOGY, USA
		FUKUI, JAPAN
		MEIWA CORP (TOA), JAPAN
29.	PLUG VALVE	XOMOX SANMAR, TRICHY
		FLOWERVE INDIA CONSTROLS (AUDCO), KANCHIPURAM
		BDK, HUBLI
	PLUG VALVES	3Z CORP, KOREA
30.	SILENCERS	BBM ACOUSTICS, PUNE
		CCI, HOSUR
		NR TCH, KOREA
		INDIRA INDUSTRIES, RANIPET
		AMERICAN AIR FILTER, USA
		BURGESS MANNING, USA
		CCI FLUID KINETICS, USA
		KOREA CHEM, KOREA
		ARRDING, KOREA
		PR ACOUSTIC, CHENNAI
		FIO-DYNE, UK
31.	QC NRV	WEIR, USA
		SAMPELL, GERMANY
		ADAM, GERMANY
32.	LIGHT BONDED MINERAL WOOL	GOENKA, ROCKWOOL, RAIPUR
		SHREERAM EQUITECH, DURG
		THERMO CARE ROCKWOOL PVT LTD, RAGNANDGAON
		PUNJ STAR INSULATION (PIFCO), BHILAI
		MINWOOL ROCK FIBRES LTD., RAJNANDGAON, BHILAI
		LLOYD INSULATION, CHENNAI (RWI), BHILAI
		ROCKWOOL INDIA LTD, MEDAK-AP,
		KKC CO LTD., KOREA
		SYDAM, CHINA
		LAPINUS ROCKWOOL LTD., GWALIOR
33.	CASTABLE REFRACTORY	MAHAKOSHAL, KATNI
		DALIMA REFRACTORIES, DALMIAPURAM
		BHASKAR REFRACTORIES & STONEWARE PIPES, FARIDABAD



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		ACC, KANTI
34.	POURABLE INSULATION	BHASKAR REFRACTORIES & STONEWARE PIPES, FARIDABAD
		DALIMA REFRACTORIES, DALMIAPURAM
		MAHAKOSHAL, KATNI
		ACC, KATNI, KATNI
35.	FURNACE MAINT PLATFORM (SKYCHMBER)	NV SKYMANINT. SA, BELGIUM
	FURNACE MAINT PLATFORM (SKYCHMBER)	NV SKYCLIMBER EUROPE SA, BELGIUM
36.	QUICK ERECT FURNACE SCAPHOLDING	BSI, UK
37.	ELECTRIC HOIST WITH TROLLEY, UNDERSLUNG CRANE	CONSOLIDATED HOISTS, SATARA
		HERCULES HOIST LTD., MUMBAI
		TRACTOR TRIFOR, FARIDABAD
		ARMSEL MHE PVT LTD., BANGALORE
		DYNAMECH CRANES THANE, MUMBAI
		GRIP ENGINEERS, HYDERABAD
		POWER BUILD P LTD., VV NAGAR
		ANUPAM INDUSTRIES, VITHAL, UDYOGNA GAR
		UNIVERSAL HOIST, THANE
		CONSOLIDATED HOISTS, PUNE
		NAMSUNG MACHINERY, KOREA
38.	ELECTRIC HOIST WITH TROLLEY, UNDERSLUNG CRANE <05 TONS CAP	
39.	METALLIC EXPANSION JOINT FOR DUCTS	FLEXICAN BELLOWS & HOISTS P. LTD., VADODARA
		FLEXATHERM EXPANLLOW, VADODARA
	METALLIC EXPANSION JOINTS FOR PIPES	METALLIC BELLOWS, CHENNAI
		LONESATR, CHENNAI
		HRK, KOREA
		FLEXCON BELLOWS & HOISTS, BARODA
		SR FLEXICONICS BIRD, UK
		MUNRO MILLER LTD., UK
		WITZERMANN, GERMANY
40.	PRIMARY STRUCTURE CEILING GIRDERS, MAIN COLUMNS, AUX COLUMNS, BUILT UP BEAMS,	DAIMOND ENGG, CHENNAI



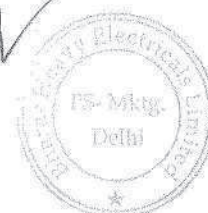


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TECHNICAL SPECIFICATION FOR
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	BOXES, BUCKSTAY, BRACINGS, MILL BAY STR, APH SUPPORT STR.	
		SALEM AUTOMECH, CHENNAI
		BHEL, TRICHY
		PRATIBHA PIPES & STR, THANE
41.	PRIMARY STRUCTURE CEILING GIRDERS, MAIN COLUMNS, AUX COLUMNS, BUILT UP BEAMS, BOXES, BUCKSTAY, BRACINGS, MILL BAY STR, APH SUPPORT STR.	SIMPLEX ENGG, BHILAI
		INDIANA GRATINGS, PUNE
		TECHNOFAB, CHENNAI
		JSSL (JINDAL STEEL SEVERFEILD), BELLARY
		FEEDERS LIYODS, SIKANDRABAD
		ATMASCO, BHILAI
		BHEL, TRICHY
		JSPL, RAIGAD
		ARCELLOR MITTAL DHAM, RANIPET
		AND IND, SITARGANJ
		ESSAR, HAZIRA
42.	BUCKSTAY	BHEL, TRICHY
		ENSTEE, NAGPUR
		SHIVAM HITECH, BHILAI
		SEAM, NAGPUR
		SSV, PUNE
		WHEELSIND, WARDHA
43.	BUCKSTAY BRACINGS ETC MFR FROM ROLLED SECTION	
44.	DUCT & HOPPERS, TRANSITION PIECE, & FLOWMETER	COREFAB BHILAI, BHILAI
44.	DUCT & HOPPERS, TRANSITION PIECE, & FLOWMETER	V3 MEGA CORP, CHENNAI
		METALFAB, NAGPUR
		ENESTEE, NAGPUR
		SSV, NAGPUR
		ATMASCO, BHILAI
		SPECTRA, HYDERABAD
		FEDDERS LLOYDS, SIKANDRABAD
		BHEL, TRICHY
		TECHNOFAB, CHENNAI
		SHIVAM HI TECH, BHILAI
45.	GRATINGS & PLATFORMS	GREATWELD STEEL GRATING



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		INDIANA GRARTINGS P. LTD.
		BHOLARAM STEELS , PATNA
		KANADE ANAND UDYOG
		PREMIER POWER PROJ, HOWRAH
46.	SECONDARY STRUCTURE PLATFORMS, GALLERIES, WALKWAY, STAIRCASE LADDER, ANCHOR BOLTS ETC.	
47.	PULVERISER	ALSTOM, USA
		TYZMASH, RUSSIA
47.	PULVERISER	HPE, GERMANY
		DOOSAN, KOREA
		BHEL, HYDERABAD
48.	PULVERISER GEAR BOX (PLANETARY)	FLENDER/SIEMENS, GERMANY
		WELTER, GERMANY
49.	GRINDING ROLLS	AIAE LTD., AHMEDABAD
50.	BULL RING SEGMENT	AIAE LTD., AHMEDABAD
51.	CERAMIC LINED BEND COAL PIPES	CARBORANDUM UNIVERSAL, HOSUR
		BHEL IP, JAGDISHPUR
		BHEL EDN, BANGALORE
52.	COAL AIR PIPES	JCO GAS PIPE LTD, CHINDWARA
		PSL-VIZAC
		MANN INDUSTRIES, PITHAMPUR
		MSL
		RATNAMANI
		PRATIBHA, MUMBAI
53.	CAP-KNIFE GATE VALVE	GALAXY CONTROLS, CHENNAI
		ORBINOX, COIMBATORE
		VAAS INDUSTRIES, CHENNAI
		JASH, INDORE
54.	RAPH (PAPH & SAPH)	APCO, USA
		BWE, DENMARK
		HOWDEN, UK
		DOOSAN, KOREA
55.	AIR RECEIVER TANKS	G. B. INDUSTRIES, TRICHY
		C DOCTOR, AHMEDABAD
		PATEL AIR TEMP, AHMEDABAD
		CETHAR VESSELS, TRICHY
		VEE SONS, TRICHY
		KPHE, KOREA
56.	GRAVIMETRIC FEEDERS	BHEL, TRICHY





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		MERRICK, INDUSTRIES PVT. LTD., BANGALORE
		STOCK REDDLER INDIA PVT. LTD., BANGALORE
		STOCK EQUIPMENT CO., USA
57.	FD/ID/FD FANS	L&T HOWDEN PVT. LTD., INDIA
		BHEL, RANIPET
		TLT TURBO GMBH, GERMANY
		HOWDEN, DENMARK
58.	VIBRATION ISOLATING SYSTEM FOR FANS	GERB, BANGALORE
59.	LUB OIL SYS FOR FANS	SOUTHERN LUBRICATION, BANGALORE
59.	LUB OIL SYS FOR FANS	LINCOLN HELIOS, BANGALORE
		CENLUB, FARIDABAD
		PSI ENGG., CHENNAI
60.	GATES & DAMPERS	BACHMANN, FARIDABAD
		BHEL, RANIPET
		SAMKWANG, KOREA
		INDIRA DAMPERS, RANIPET
		FOURESS INDIA, BANGALORE
61.	SCAPH	DONGWHA ENTEC CO. LTD.
		PATEL AIR TEMP, AHMEDABAD
		PROGEN SYS TECH. LTD, THIRUVALLURI
		BHEL, RANIPET
		C DOCTOR, AHMEDABAD
		BARODA EQPT. VESSEL P LTD., VADODARA
62.	SEAL AIR FAN	TLT INDIA, GUJARAT
		ACCEL, AHMEDABAD
		ANDREW YULE, KOLKATA
		PATEL AIR TEMP, AHMEDABAD
		BHEL, RANIPET
		C B DOCTRO & CO, AHMEDABAD
6	HIP/HP INNER CASING M/C (HP & IP INNER CASINGS)	LMTG, HAZIRA
		MHI, JAPAN
		ALSTOM BEIZHONG POWER, CHINA
		FUZI ELECTRIC, JAPAN
		HEEP, HARDWAR
		MCE, AUSTRIA



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		BRUNO PRESEZZI, ITALY
		ROSSEL DUSO, VENICE
		NUGO ROMANO, ITALY
		LIEPERT, GERMANY
		GMW, GERMANY
		TOSHIBA WORKS, JAPAN
		TJTG, CHENNAI
		SHARP, PUNE
6A.	HP & IP INNER CASING ASSEMBLY	LMTG, HAZIRA
		ALSTOM BEIZHONG POWER, CHINNA
		MHI, JAPAN
		TOSHIBA WORKS, JAPAN
		TJTG, CHENNAI
		SIEMENS, GERMAQNY
		HEEP, HARDWAR
7.	HIP/HP TURBINE SHAFT FORGING	JCFC, JAPAN CASTING & FORGING, JAPAN
		SDF, ITALY
		PACIFIC STEEL, JAPAN
		SCHMIEDEWERKE GRODITZ, GERMANY
		BUDERUS EDELSTAHI, GERMANY, AURTRIA
		CRU\ESTOG FORGE, FRANCE
		KOBE STEEL, JAPAN
		SARRCHIMIEDE, GERMANY
		JSW, JAPAN
8.	HIP TURBINE SHAFT M/C	LMTG, HAZIRA
		ALSTOM BEIZHONG POWER, CHINA
		MHI, JAPAN
		TOSHIBA WORKS, JAPAN
		TJTG, CHENNAI
		SIEMENS, GERMANY
		HEEP, HARDWAR
		BRUNO PRESEZZI, ITALY
		ROSSEL, DUSO, VENICE
		NUGO ROMANO, ITALY
		FUZI ELECTRIC, JAPAN
9.	HIP TURBINE ROTOR	MHI, JAPAN
		ALSTOM BEIZHONG POWER, CHINA





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TECHNICAL SPECIFICATION FOR
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		TOSHIBA WORKS, JAPAN
		SIEMENS, GERMANY
		HEEP HARGWAR
10.	HP STATIONARY & MOVING BLADES BAR STOCK	BOHIER, AUSTRIA
		NICHIA TANKO, JAPAN
		HITACHI METAL PRECISION, JAPAN
		ACCIALERLE VALBRUNA S.P.A., ITALY
		BGH EDELSTAHl GMBH, GERMANY
		BOEHIER SCHMIEDETECHNIK, GERMANY
		GLORIA MATERIAL, TAIWAN
		ADVANCE TURBINE COMPONENTS, USA
		THYSEEN KRUPP STEEL, GERMANY
		METAL RAVNE, SLOVENIA,
		HITACHI, JAPAN
		STARWIRE, INDIA,
		CARPENTER, USA,
		WAIZE WERKE REVEVE, GERMANY
		DIADO KOGYO, JAPAN
11.	HP STATIONARY & MOVING BLADES (M/C)	LMTG, HAZIRA
		MHI, JAPAN
		TOSHIBA WORKS, JAPAN
		TJTG, CHENNAI
		GE TOSHIBA TURBINE, MEXICO
		ALSTOM SWITZERLAND LTD., SWITZERLAND
		ALSTOM POWER SYSTEM GMVH, GERMANY
		ALSTOM BEIZHONG POWER, CHINA
		WUXI TURBINE BLADE, CHINA
		LEISTRIZ GERMANY
		ENERGIETECHNIK EINSAL, GERMANY
		OFFICINE MECHNCH ZEMA, ITALY
		JINYONG TBX CO LTD., KOREA
		WIROMET, POLAND
		HEEP, HARDWAR,
12.	MSV & GV CASING (HP VALVES) MAT	STANDE STAHLGUSS, GERMANY
		VOESTALPINE GIESEREI, AUSTRIA
		STARWIRE, BALLABHGARH



	NTPC SAIL POWER COMPANY (P) LIMITED ROURKELA POWER PROJECT (PP - III : 1X250 MW) TECHNICAL SPECIFICATION FOR EPC PACKAGE	
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		JAPAN STEEL WORKS, JAPAN
		JCFC, JAPAN
		GRUPPO, CIVIDALE, ITALY
		SANDE GRODIZ, POLAND
		ALSTOM, HARDWAR
		CFFP, CHINA
		DHHI, CHINA
13.	MSV & GV CASING (HP VALVES) M/C	LMTG, JAPAN
		MHI, JAPAN
		ALSTOM BEIZHONG POWER (BEIJING) CHINA
		HEEP, HARDWAR
		ENERGY MAC HINES, AHMEDABAD
		TOSHIBA WORKS, JAPAN
		TJTG, CHENNAI
		SIEMENS, GERMANY
		HEEP, HARDWAR
15 A.	HP JOINT BOLTS (RAW MATERIAL)	HITACHI METALS PRECISION LTD
		DAIDAO STEEL CO. LTD. , JAPAN
		SANYA SPECIAL STEEL, JAPAN
		AICHI STEEL CORP. , JAPAN
		KOBE STEEL LTD., JAPAN
		GLORIA MATERIAL TECHONLOGY CORP., TAIWAN
		SKF, SWEDEN
		KALYANI CARPENTER,
		MUSCO (MAHINDRA UGINE STEEL), INDIA
		STARWIRE, BALLABHGARH
15 B.	HP JOINT BOLTS	LMTG, HAZIRA
		MHI, JAPAN
		ALSTOM BEIZHONG POWER (BEIJING), CHINA
		TOSHIBA WORKS, JAPAN
		TJTG, CHENNAI
		HEEP, INDIA
		ASK FASTNER, INDIA
		HITEN, INDIA
16.	HIP TURBINE ASSLY	LMTG, HAZIRA
		MHI, JAPAN
		ALSTOM BEIZHONG POWER





NTPC SAIL POWER COMPANY (P) LIMITED
ROURKELA POWER PROJECT
(PP – III : 1X250 MW)



TECHNICAL SPECIFICATION FOR
EPC PACKAGE

		(BEIJING) CHINA
		TOSHIBA WORKS, JAPAN
		TJTG, CHENNAI
		SIEMENS, GERMANY
		HEEP, HARDWAR
17.	STEAM INLET/BREECH BLOCK/ INLET CONNECTION OVERLOAD CONNECTION VALVE COVER ALL RINGS FORGING (MAT 9% CR.)	BOHLER, AUSTRIA
		BAY FORGE, HYDERABAD
		CHOUDHARY HAMMER, GAJIABAD
		STARWIRE, INDIA
		FORGITAL, ITALY
		CFFP, HARDWAR
		BHARAT FORGE, PUNE
		MIDHANI, HYDERABAD
18.	FORGING FOR THREADED RING/ .SHAFT SEAL RING / RING / EXTRACTION INSERT / FLANGE (MAT 1 CR.)	BOHLER, AUSTRIA
		BAY FORGE, HYDERABAD
		CHOUDHARY HAMMER, GAJIABAD
		STARWIRE, INDIA
		FORGITAL, ITALY
		CFFP, HARDWAR
		BHARAT FORGE, PUNE
		GOOD LUCK, GHAZIABAD
		MIDHANI, HYDERABAD
		VISHNU FOREGE, BANGALORE
18.	SEALING RING	TURBOSEALK, KOREA
		LMTG, HAZIRA
		MHI, JAPAN
		TOSHIBA WORKS, JAPAN
		TJTG, CHENNAI
		SIEMENS, GERNANY
		HEEP, HARDWAR
19.	HP SHAFT SEALING	LMTG, HAZIRA
		MHI, JAPAN
		ALSTOM BEIZHONG POWER (BEIJING) CHINA
		TOSHIBA WORKS, JAPAN
		TJTG, CHENNAI
		SIEMENS, GERNANY



	NTPC SAIL POWER COMPANY (P) LIMITED ROURKELA POWER PROJECT (PP - III : 1X250 MW) TECHNICAL SPECIFICATION FOR EPC PACKAGE	
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		HEEP, HARDWAR
		TURBOSEALK, KOREA
		TURBOMACHINARY, HYDERABAD
20.	IP BLADE RING CASTING, CR. STEEL	VOISTALPINE GIESSERAL, HYDERABAD
		SANDE STAHLGUSS GMBH, GERMANY
		STARWIRE, INDIA
		MHI, JAPAN
		GRUPPO CIVIDALE, ITALY
		SANDE GRODLTZ, GERMANY
		FCFC, JAPAN
21.	IP BLADE RING CASING M/C	LMTG, HAZIRA
		MHI, JAPAN
		TOSHIBA WORKS, JAPAN
		TJTG, CHENNAI
		SIEMENS, GERMANY
		HEEP, HARDWAR
22.	IP STATIONARY & MOVING BLADES BAR STOCK	BOHIER, AUSTRIA
		NICHIA TANKO, JAPAN
		HITACHI METAL PRECISION, JAPAN
		ACCIALERLE VALBRUNA S.P.A, ITALY
		BGH EDELSTAHl GMBH, GERMANY
		BOEHIER SCHMIEDETECHNIK, GERMANY
		GLORIA MATERIAL, TAIWAN
		ADVANCE TURBINE COMPONENTS, USA
		THYYSEEN KRUPP STEEL, GERMANY
		METAL RAVNE, SLOVENIA,
		HITACHI, JAPAN
		STARWIRE, INDIA,
		CARPENTER, USA,
		WAIZE WERKE REVENE, GERMANY
		DIADO KOGYO, JAPAN
23.	IP STATIONARY & MOVING BLADES M/C	SET, HUNGARY
		LMTG, HAZIRA
		MHI, JAPAN
		TOSHIBA WORKS, JAPAN
		TJTG, CHENNAI





NTPC SAIL POWER COMPANY (P) LIMITED
ROURKELA POWER PROJECT
(PP - III : 1X250 MW)



TECHNICAL SPECIFICATION FOR
EPC PACKAGE

		GE TOSHIBA TURBINE, MEXICO
		ALSTOM SWITZERLAND LTD., SWITZERLAND
		ALSTOM POWER SYSTEM GMVH, GERMANY
		ALSTOM BEIZHONG POWER, CHINA
		WUXI TURBINE BLADE, CHINA
		LEISTRIZ GERMANY
		ENERGIETECHNIK EINSAL, GERMANY
		OFFICINE MECHNCH ZEMA, ITALY
		JINYONG TBX CO LTD., KOREA
		WIROMET, POLAND
		HEEP, HARDWAR,
24.	IP VALVE CSING (MAT)	SANDE STAHLGUSS, GERMANY
		VOESTALPINE GLESSEREL, BALLABHGARH
		MHI, JAPAN
		GRUPPO CIVIDALA, TIALY
		STAHLGUSS SAAR, GERMANY
		CFFP, HARDWAR
		ALSTOM, POLAND
		DHHI, CHENNAI
		SANDE GRODITZ, GERMANY
		JSW, JAPAN
		JCFC, JAPAN
		STAHLGUSS GRODITZ, GERMANY
25.	IP VALVE CASING (M/C)	LMTG, HAZIRA
		MHI, JAPAN
		ALSTOM BEIZHONG POWER (BEIJING), CHINA
		TOSHIBA WORKS, JAPAN
		TJTG, CHENNAI
		SIEMENS, GERMANY
		HEEP, HARDWAR
		ROSSL DUSO, VENICE
		BRUNO PRESSEZI, MILAN
26.	RSV & ICV VALVE ASSEMBLY	LMTG, HAZIRA
		MHI, JAPAN
		ALSTOM BEIZHONG POWER (BEIJING), CHINA



	NTPC SAIL POWER COMPANY (P) LIMITED ROURKELA POWER PROJECT (PP - III : 1X250 MW)	
	TECHNICAL SPECIFICATION FOR EPC PACKAGE	

		TOSHIBA WORKS, JAPAN
		TJTG, CHENNAI
		SIEMENS, GERMANY
		HEEP, HARDWAR
	IP JOINT BOLTS (MAT)	HITACHI METALS PRECISION LTD
		DAIDAO STEEL CO. LTD. , JAPAN
		SANYA SPECIAL STEEL, JAPAN
		AICHI STEEL CORP. , JAPAN
		KOBE STEEL LTD., JAPAN
		GLORIA MATERIAL TECHNOLOGY CORP., TAIWAN
		SKF, SWEDEN
		KALYANI CARPENTER,
		MUSCO (MAHINDRA UGINE STEEL), INDIA
		STARWIRE, BALLABHGARH
		LMTG, HAZIRA
		MHI, JAPAN
		ALSTOM BEIZHONG POWER (BEIJING), CHINA
		TOSHIBA WORKS, JAPAN
		TJTG, CHENNAI
		HEEP, INDIA
		ASK FASTNER, INDIA
		HITEN, INDIA
27.	IP JOINTS BOLTS	LMTG, HAZIRA
		MHI, JAPAN
		ALSTOM BEIZHONG POWER (BEIJING) CHINA
		TOSHIBA WORKS, JAPAN
		TJTG, CHENNAI
		SIEMENS, GERMANY
		HEEP, HARDWAR
28.	IP SHAFT SEALING	LMTG, HAZIRA
		MHI, JAPAN
		ALSTOM BEIZHONG POWER (BEIJING) CHINA
		TOSHIBA WORKS, JAPAN
		TJTG, CHENNAI
		SIEMENS, GERMANY
		HEEP, HARDWAR,



	NTPC SAIL POWER COMPANY (P) LIMITED ROURKELA POWER PROJECT (PP - III : 1X250 MW) TECHNICAL SPECIFICATION FOR EPC PACKAGE	
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28 A.	LP BLADE RING CARBON STEEL	STARWIRE, BALLABHGARH
		UP STEEL, MUZAFFARNAGAR,
		RV ENGINEER, FARIDABAD
		HEEP, HARDWAR
29.	SEALING RINGS	BOHLER, AUSTRIA
		BAY FORGE, HYDERABAD
		CHOUDHARY HAMMER, GAJIABAD
		STARWIRE, INDIA
		FORGITAL, ITALY
		CFFP, HARDWAR
		BHARAT FORGE, PUNE
		GOOD LUCK, GHAZIABAD
		MIDHANI, HYDERABAD
		VISHNU FOREGE, BANGALORE
30.	LP SHAFT SEALING (M/C)	LMTG, HAZIRA
		MHI, JAPAN
		TOSHIBA WORKS, JAPAN
		TJTG, CHENNAI
		SIEMENS, GERMANY
		HEEP, HARDWAR,
31.	LP TURBINE SHAFT FORGING	SDF TERNI, ITALY
		CRUSFORTE, FRANCE
		JSW (JAPAN STEEL WORKS), JAPAN
		JCFC, JAPAN
		BUDERUS EDELSTAH, GERMANY
32.	LP TURBINE SHAFT (M/C)	FUGI ELECTRIC, JAPAN
		SIEMENS, GERMANY
		HEEP, HARDWAR
		TJTG, CHENNAI
		ALSTOM, POLAND, SWITZERLAND,
		FRANCE, GERMANY
		TOSHIBA WORKS, JAPAN
		ROSSI DUSO, ITALY
		MHI, JAPAN
		LMTG, INDIA
		NUGO ROMANO, ITALY
33	LP TURBINE ROTOR	MHI, JAPAN
		ALSTOM, POLAND, SWITZERLAND,
		FRANCE, GERMANY
		TOSHIBA WORKS, JAPAN

	NTPC SAIL POWER COMPANY (P) LIMITED ROURKELA POWER PROJECT (PP – III : 1X250 MW) TECHNICAL SPECIFICATION FOR EPC PACKAGE	
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		SIEMENS, GERMANY
		HEEP, HARDWAR
34	LP INNER CASING FABRICATION	LMTG, HAZIRA
		ALSTOM, POLAND, SWITZERLAND, FRANCE, GERMANY
		D & N, GERMANY
		KCP, CHENNAI
		ISGEC, YAMUNANAGAR
		SHARP, PUNE
		HEEP, HARDWAR
		SIEMENS, GERMANY
		TJTG, CHENNAI
		MHI, JAPAN
		SHAPE, HARDWAR
		TOSHIBA WORKS, JAPAN
35	LP INNER CASING (M/C)	LMTG, HAZIRA
		SHARP, PUNE
		ALSTOM, POLAND, SWITZERLAND, FRANCE, GERMANY
		MHI, JAPAN
		TJTG, CHENNAI
		MHI, JAPAN
		HEEP, HARDWAR
		SIEMENS, GERMANY
36	LP INNER CASING ASSLY	BHEL, TRICHY
		CLYDE BERGEMANN GMBH, GERMANY
		DAIMOND POWER SPECIALITY LTD, SCOTLAND
		BHEL, TRICHY/GOINDWAL
		CLYDE BERGEMANN GMBH, NOIDA
		SHANGHAI CLYDE BERGEMANN MACHINERY, CHINA
37	LP OUTER CASING (FABRICATION)	LMTG, HAZIRA
		ALSTOM, POLAND, SWITZERLAND, FRANCE, GERMANY
		D & N, GERMANY
		KCP, CHENNAI





NTPC SAIL POWER COMPANY (P) LIMITED
ROURKELA POWER PROJECT
(PP - III : 1X250 MW)



TECHNICAL SPECIFICATION FOR
EPC PACKAGE

		ISGEC, YAMUNANAGAR
		SHARP, PUNE
		HEEP, HARDWAR
		SIEMENS, GERMANY
		TJTG, CHENNAI
		MHI, JAPAN
		SHAPE, HARDWAR
		TOSHIBA WORKS, JAPAN
38	GUIDE BLADE CARRIER (GUIDE BLADE RINGS)	BHEL, TRICHY
		CLYDE BERGEMANN GMBH, GERMANY
		DAIMOND POWER SPECIALITY LTD, SCOTLAND
		BHEL, TRICHY/GOINDWAL
		CLYDE BERGEMANN GMBH, NOIDA
		SHANGHAI CLYDE BERGEMANN MACHINERY, CHINA
		TOSHIBA HYDRO POWER, CHINA
		DHHI, CHINA
		DONGHYANG ENERGY, KOREA
39	LPT COMPENSATORS FOR CAP	EICKHOFF, GERMANY
		WITZEMANN, GERMANY
		HKS, GERMANY
		MB METALLIC BELLOWS, CHENNAI
		FLEXICAN, BARODA
		KOMPAFLEX, GERMANY
		BOA-BKT, GERMANY
		AEROSUN TOLA EXPANSION, CHINA
		LONE STAR, CHENNAI
		SANGHAI YONGXIN, CHINA
40	LP CROSS OVER PIPE	LONE STAR, CHENNAI
		SHANGHAI YONGXIN, CHINA
		AEROSUN TOLA EXPANSION, CHINA
		ROHR-UND ANLARGENBAU (ROBA), GERMANY
		BABYLON, GERMANY
		EICKHOFF, GERMANY



	NTPC SAIL POWER COMPANY (P) LIMITED ROURKELA POWER PROJECT (PP – III : 1X250 MW) TECHNICAL SPECIFICATION FOR EPC PACKAGE	
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		SHAPE, HARDWAR
		SEONGHWA, KOREA
		DEE DEVELOPMENT, FARIDABAD
		HATEC, GERMANY
		HKR, KOREA
		LMTG, HAZIRA
41	LP STATIONARY & MOVING BLADES FROM BAR (MARERIAL)	BGH, EDELSTAHL, GERMANY
		ALSTOM, DURGAPUR
		DOOSAN, KOREA
		DOSI, CHENNAI
		DOOSAN, KOREA
		CCI, SWEDEN
		BHEL, TRICHY
42	LP STATIONARY & MOVING BLADES FROM BAR (M/C)	NIPPON FISCHER, JAPAN
		CCI, SWEDEN
		WELLEN TUXHORN, GERMANY
		MASONELAN, FRANCE
		COPE VULCAN, UK
43	LP CAST BLADE (CASTED)	ZOLLERNWERKE, GERMANY
		FORMETAL (CISMOCISCO), ITALY
		ESCO, BELGIUM
		IPCL, BHAVNAGAR
		PTC, MEHSANA
44	LP FORGED BLADES (DROP)	MHI, JAPAN
		C-BLADE SPA, ITALY
		SUMITOMO, JAPAN
		LISTRITZ ATC, USA
		LISTRITZ ATC, USA
		LISTRITZ, GERMANY
		NICHIA TANKO, JAPAN
		ALSTOM, SWITZERLAND
		SMBSA, SWITZERLAND
		BOHLER, AUSTRIA
		PIETRO ROSA, ITALY
		WUXI TURBINE BLADE, CHINA





NTPC SAIL POWER COMPANY (P) LIMITED
ROURKELA POWER PROJECT
(PP – III : 1X250 MW)



TECHNICAL SPECIFICATION FOR
EPC PACKAGE

45	LP FORGED BLADES (DROP) M/C	MHI, JAPAN
		SUMITOMO, JAPAN
		C-BLADE SPA, ITALY
		TOSHIBA, JAPAN
		ALSTOM, GERMANY
		TJTG, CHENNAI
		BOHLER, AUSTRIA
		PIETRO ROSA, ITALY
		WUXI TURBINE BLADE, CHINA
		LMTG, HAZIRA
46	LP SHAFT SEALING RING	KISAAN STEELS LTD, GHAZIABAD
		VISHNU FOREGE, BANGALORE
		VIKRANT FORGE, KOLKATA
		GOOD LUCK, GHAZIABAD
		RING FORGING, CHENNAI
		ALKA FORGING, GHAZIABAD
		TURBO PARTS, USA
		TURBO POWER TECHNOLOGY, KOREA
		LMTG, HAZIRA
		TURBOSEAL, KOREA
		TURBOMACHINERY, HYDERABAD
		TURBOMACHINERY, HYDERABAD
		MHI, JAPAN
47	LP ASSEMBLY	BHEL, TRICHY
		CLYDE BERGEMANN GMBH, GERMANY
		DAIMOND POWER SPECIALITY LTD, SCOTLAND
		BHEL, TRICHY/GOINDWAL
		CLYDE BERGEMANN GMBH, NOIDA
		SHANGHAI CLYDE BERGEMANN MACHINERY, CHINA
48 A	COUPLING BOLTS & NUTS (HP/IP/LP) RAW MATERIAL	SANWATAKI, JAPAN
		ITT GRINELL, GERMANY
		PIPE SUPPORTS, UK
		LISEGA, GERMANY



	NTPC SAIL POWER COMPANY (P) LIMITED ROURKELA POWER PROJECT (PP - III : 1X250 MW) TECHNICAL SPECIFICATION FOR EPC PACKAGE	
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		CARPENTER PATTERSON, UK
48 B	COUPLING BOLTS & NUTS (HP/IP/LP)	LMTG, HAZIRA
		MHI, JAPAN
		TOSHIBA, JAPAN
		TJTG, CHENNAI
		SIEMENS, GERMANY
		HEEP, HARDWAR
		SHITAL TECH, PUNE
		PICGRIM, UK
		ASK FASTNER, PUNE
		HITEN FASTNER, BALLABGARH
49	BRG. SHELL & THRUST PAD M/C	EUROBEARING, ITALY
		DAEDONG METAL INDUSTRY, KOREA
		ALSTOM BEIZHONG POWER (BEIJING) CHINA
		KINGSBURY, USA
		DIADO, JAPAN
		EUROBEARING, ITALY
		OMEGA, BHOPAL
50	BEARING PEDESTAL WITH COVER (FAB)	MHI, JAPAN
		TJTG, CHENNAI
		LMTG, HAZIRA
		SHARP, PUNE
51	BEARING PEDESTAL WITH COVER (M/C)	LMTG, HAZIRA
		SHARP, PUNE
		SIEMENS, GERMANY
		HEEP, HARDWAR
		MHI, JAPAN
		LMTG, HAZIRA
52	ELECTRO HYDRAULIC ACTUATOR (STEAM VALVES)	MHI, JAPAN
		MOOG, JAPAN
		BOSCH REXROTH, GERMANY
53	ACTUATOR & VALVE FOR CRH-NRV & QC-NRV	BABCOCK, SPAIN
		ADAMS, GERMANY
		SEMPELL, GERMANY



	NTPC SAIL POWER COMPANY (P) LIMITED ROURKELA POWER PROJECT (PP - III : 1X250 MW) TECHNICAL SPECIFICATION FOR EPC PACKAGE	
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		WEIR VALVES & CONTROL, USA
58	TURBINE OIL COOLER	GEA ECOFLEX, INDIA
		IDMC, VU NAGAR
		MYTEC S KOREA
		ALFA LEVEL, PUNE
		TRANTER, PUNE
59	TURBINE INTEGRAL PIPING	ROHR-UND ANLARGENBAU (ROBA), GERMANY
		UNITECH, SAHARANPUR
		SEONGHWA, KOREA
		CETHAR VESSELS, TIRUCHIRAPALLI
		BHR, GERMANY
		BILFINGER, GERMANY
		L&T HAZIRA
		KOYAMA, JAPAN
		DEE DEVELOPMENT, FARIDABAD
		BHEL PIPING CENTRE, CHENNAI
		LMTG, HAZIRA
		BEND JOINT, BHOPAL
60	LUBE OIL SYSTEM (OIL SKID) (OUMPS MANUFACTURER IN OIL MODULE TO BE INFORMED LATER)	KING DYNAMICS, SWITZERLAND
		FLENCO, ITALY
		HYDEC, GERMANY
		AEL, GERMANY
		BAK, UK
		HOWARD MARTIN, CANADA/USA
		VDL DELMAS, GERMANY
		ALWELLER, GERMANY
		KELAG, SWITZERLAND
61	OIL PURIFICATION SYSTEM	KAYDEN, USA
		PALL CORPORATION, MUMBAI
		ROETRING, GERMANY
		FACET, SPAIN
		WESTFALIA SEPERATOR, BANGALORE
		ALFA LEVEL, PUNE

	NTPC SAIL POWER COMPANY (P) LIMITED ROURKELA POWER PROJECT (PP - III : 1X250 MW) TECHNICAL SPECIFICATION FOR EPC PACKAGE	
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62	THERMAL INSULATION	LLOYDS INSULATION, BHILAI, GWALIOR/DURGAPUR
		ARNOLD INSULATION, GERMANY
		EUROPOLIT LTD. SP. ZO., POLAND
		G+H SCHALLSCHUTZ GMBH, GERMANY
		GRUPA OBSLUGI PRZEMYSŁU BETA SP. Z, POLAND
		KAEFER ISOLLERTECHNIK GMBH & CO. KG, GERMANY
		NOVISOL AG, SWITZERLAND
		LIL ISOLIERTECHNIK GMBH, GERMANY
		TERMOIZOLACJA ENTER EKO SP. Z.O.O., SWITZERLAND.
		TERMOIZOLACJA S.A., POLAND
		ZAKŁAD IZOLACYJNO-MONTOZOWY ZIM SC, GERMANY
		MINWOOL ROCK FIBRE, BHILAI
		KAEFER, GERMANY
		EUGEN ARNOLD GMBH, GERMANY
		HEINRICH TAPP GMBH, GERMANY
	NTPC	
7A	BOOSTER PUMP	KSB, GERMANY
		SULZER, MUMBAI
		SULZER, UK
		FLOWERVE, COIMBATORE
		FLOWERVE, SWITZERLAND
		HITACHI, JAPAN
		EBARA, JAPAN
		MHI, JAPAN
		BHEL, HYDERABAD
7B	BOILER FEED PUMP	
8	STEAM TURBINE DRIVE FOR BFP (APPROVAL CONDITIONS APPLY)	SIEMENS, GERMANY
		HITACHI, JAPAN
		GE THERODYNE, FRANCE
		TOSHIBA, JAPAN

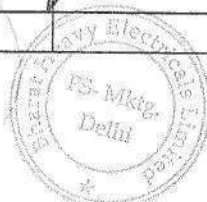


	NTPC SAIL POWER COMPANY (P) LIMITED ROURKELA POWER PROJECT (PP – III : 1X250 MW) TECHNICAL SPECIFICATION FOR EPC PACKAGE	
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		POWER MACHINES (KALUGA), RUSSIA
		BHEL, INDIA
		MHI, JAPAN
		HANGZHOU CHIEN STEAM TURBINE POWER COMPANY (HCTC) CHINA
		SHANGHAI TURBINE WORKS CO. LTD., CHINA
9	HP BYPASS VALVES	
10	LP BYPASS VALVES	
11	TURBINE HALL EOT CRANE (250 T)	
12	CONDENSOR ON LOAD TUBE CLEANING SYSTEM (COLTCS)	
13	HYDROGEN GENERATION PLANT	
14	CONDENSATE POLISHING PLANT	
15	HYDRAULIC COUPLING FOR BFP	VOITH, HYDERABAD
		VOITH, GERMANY
16	HANGERS & SUPPORTS: PIPE SUPPORT COMPONENTS INCLUDING SPRING HANGERS	PIPE SUPPORTS, CHENNAI
		LISEGA, GERMANY.
		SEONGHWA, KOREA
		PIPE SUPPORTS, UK
		GILLARDINI, ITALY
		BERJEN, CHITTUR
		NHK SPRING, JAPAN
		YAMASHITA, JAPAN
		MHI, JAPAN
		ITT, GERMANY
		SANWA, JAPAN
		CARPENTER PATTERSON, USA/THILAND
17	METALLIC EXPANSION JOINT	LONESTAR, CHENNAI, INDIA
		FLEXICAN, BARODA
		WITZEMANN, GERMANY
		MUNRO & MILLER, UK
		BIRD PRECISION, UK
		MB METALLIC BELLOWS, CHENNAI

	NTPC SAIL POWER COMPANY (P) LIMITED ROURKELA POWER PROJECT (PP - III : 1X250 MW) TECHNICAL SPECIFICATION FOR EPC PACKAGE	
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		HKR, KOREA
18	HP PIPING FABRICATION (BASED ON DESIGN AND DRAWINGS OF QUALIFIED VENDORS)	BHR, GERMANY
		SEONGHWA, KOREA
		FINOW, GERMANY
		TOSHIBA, JAPAN
		CETHAR VESSELS, TIRUCHIRAPALLI
		DEE DEVELOPMENT, FARIDABAD
		BENDITECK, USA
19	HP PIPES AND FITTING (MILLS)	WYMAN-GORDON, USA
		SUMITOMO, JAPAN
		TENARIS, ITALY
		V&M, GERMANY
		V&M, FRANCE
		IBF, ITALY
		SUNGWANG BEND, KOREA
		PRODUCTOS TUBULARES, SPAIN
		JFE, JAPAN
		BENTLER, GERMANY
		TK CORPORATION, KOREA
		TUBOS REUNIDOS, SPAIN
		MEGA, ITALY
		YANGZHOU CHENGDE STEEL PIPE CO, CHINA
		PETROL RACCORD, ITALY
		BENKAN JAPAN KK, JAPAN
20	ELASTOMER LARGE BELLOWES OR FLEXIBLES (RUBBER BELLOWES)	D-WREN, KOLKATA
		SRM ECOFLEX, KOLKATA
21	HEATER DRAINS RECOVERY PUMPS (DRIP PUMP)	KSB, GERMANY
		NASOENERGOMASH, UKRAINE
		SULZER, MUMBAI
		KSB, GERMANY
		KBL, PUNE
		FLOWSERVE, COIMBATORE



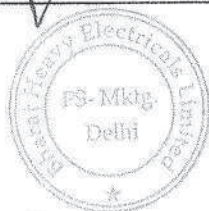


NTPC SAIL POWER COMPANY (P) LIMITED
ROURKELA POWER PROJECT
(PP - III : 1X250 MW)



TECHNICAL SPECIFICATION FOR
EPC PACKAGE

27	DRAIN / FLASH TANK	BGR, CHENNAI, INDIA
		UNITECH MACHINES, INDIA
		L&T HAZIRA
		CETHAR VESSELS, INDIA
		ISGEC, INDIA
28	DEBRIS FILTER	TECHNOS, FRANCE
		EMCO/OVIVO (WSA), USA
		GEA-BGR, CHENNAI
		TAPPROGGE, GERMANY
		MULTITEX, NOIDA, INDIA
		AMIAD FILTRATION, ISRAEL
30	LP PIPING (CS & SS)	BEND JOINT, BHOPAL
		DEE DEVELOPMENT, FARIDABAD
		UNITECH, SAHARANPUR, INDIA
		SEONGHWA, KOREA
		CETHAR VESSELS, TIRUCHIRAPALLI
		L&T HAZIRA
31	LP PIPES & FITTINGS (CS & SS)	REMI, TARAPUR, INDIA
		APEX, ALWAR
		RATNAMANIO, AHMEDABAD, INDIA
		ISMT, INDIA
		MAHARASHTRA, MAHARASHTRA
		JINDAL SAW, INDIA
		TATA, INDIA
		SURYA, INDIA
		JINDAL PIPES LTD, INDIA
		WELSPUN, INDIA
		VG ISPAT, INDIA
		SURINDRA, INDIA
		ITC, INDIA
		SAIL, INDIA
		PSL, INDIA
32	BUTTERFLY VALVES (UPTO 2400 NB, 10 KG/CM ²) * ALSO FOR STEAM SERVICES	KRILOSKAR BROS. LTD., PUNE
		AUDCO, CHENNAI
		FOURESS, INDIA
		IL, PALAKKAD



	NTPC SAIL POWER COMPANY (P) LIMITED ROURKELA POWER PROJECT (PP - III : 1X250 MW) TECHNICAL SPECIFICATION FOR EPC PACKAGE	
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		BDK, INDIA
		TYCO, HALAL
		L&T, COIMBATORE
		INTERVALVE, PUNE
		BHEL, BHOPAL, INDIA
33	VALVES (GAE / GLOBE / CHECK) FOR LP APPLICATION	AUDCO, CHENNAI
		L&T, COIMBATORE
		VELAN, CANADA / INDIA
		KSB, GERMANY/INDIA
		TOA, JAPAN
		FOURESS ENGG., JAPAN
		BDK WEIR, HUBLI
		STEEL STRONG, MUMBAI
34	HP FEED WATER HEATERS AUTOMATIC (STRING BYPASS) ISOLATION VALVES	KSB, GERMANY
		TYCO SEMPELL, GERMANY
		WEIR, UK
35	WATER STEAM CYCLE HP VALVES (* REFER APPROVAL CONDITIONS)	KSB, GERMANY/ COIMBATORE
		AUDCO, CHENNAI
		L&T, COIMBATORE
		VELAN, INDIA
		VELAN, CANADA
		TOA, JAPAN
		TYCO, USK
36	SAFETY VALVES	BHEL, TRICHI, INDIA
		DRESSER, USA
		FLAINGER, GERMANY
		BOPP & REUTHER, GERMANY
		FLAINGER, NASIK, INDIA
		REINEKE, GERMANY
		VALVE TECHNOLOGY, USA
37	CENTRAL LUBRICATION SYSTEM	ENPRO, INDIA
		SOUTHERN LUBRICATION, INDIA
40	MISC TANKS	MULTITEX, NOIDA, INDIA
		ALLIED, INDIA





NTPC SAIL POWER COMPANY (P) LIMITED
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TECHNICAL SPECIFICATION FOR
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		ANUP ENGG, AHMEDABAD
		MD ENGG, INDIA
		GEI GODAVARI, INDIA
		IOT ANWESHA, INDIA
		CHEM PROCESS, INDIA
		GENERAL MECHANICAL WORKS, INDIA
		SHAKTI HI-TECH CONSTRUCTION, INDIA
		TECHNOFAB, ENGG. LTD, INDIA
		UNLTECH MACHINES LTD., INDIA
		THERMOPADS PVT. LTD., INDIA
43	FORGED SEEL VALVES UPTO 2", CLASS	KES, COIMBATORE
		LEADER, JALLANDHAR
		AUDCO, CHENNAI
		VELAN, CANADA
		FOURESS ENGG., AHMEDNAGAR
		BDK WEIR, HUBLI
		VELAN, CANADA
		STEEL STRONG, MUMBAI
		L&T, COIMBATORE
44	CONDENSER TUBES	PLYMOUTH, USA
		RATNAMANI, KUTCH
		CST VALKLINOX, HYDERABAD
		REMI, MUMBAI
		SHIN HAN METAL, KOREA
		VALTIMAT, FRANCE
		SUMITOMO, JAPAN
		SCHOLLER WERKE, GERMANY
45	LP HEATERS TUBES	PLYMOUTH TUBES CO., USA
		RATNAMANI, KUTCH
		CST VALKLINOX, HYDERABAD
		REMI, MUMBAI
		VALTIMAT, FRANCE
		SHIN HAN METAL, KOREA
		SUMITOMO, JAPAN
		SCHOLLER WERKE, GERMANY



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	NTPC SAIL POWER COMPANY (P) LIMITED ROURKELA POWER PROJECT (PP - III : 1X250 MW) TECHNICAL SPECIFICATION FOR EPC PACKAGE	
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		APEX, INDIA
		RATNADEEP METAL & TUBES LTD, INDIA
46	HP HEATERS TUBES	PLYMOUTH, USA
		RATNAMANI, KUTCH
		VALTIMAT, FRANCE
		SUMITOMO, JAPAN
		SCHOLLER WERKE, GERMANY
		CST VALKLINOX, HYDERABAD
48	STEAM TRAP	SPIRAX MARSHAL, PUNE, INDIA
		GREAVES COTTON, PUNE, INDIA
49	PAINTS	AKZO NOBEL, INDIA
		ASIAN PAINTS, INDIA
		ASIAN PAINTS, INDIA
		BERGER PAINTS, INDIA
		SHALIMAR PAINTS, INDIA
		NEROLAC PAINTS, INDIA
		JOTUN, INDIA
		PPG, INDIA
		HEMPEL, INDIA
50	ERECTION	TPPC (L&T)
		BROTHERS ENGINEERING & ERECTOR, CHENNAI
		PE ERECTORS, KOLKATA
		INDWELL CONSTRUCTIONS, VIJAYAWADA
		POWER MECH, VIJAYAWADA
		EDEC, VIJAYAWADA
		ALSTOM POWER, DELHI
		SPIC GEL, CHENNAI
		ENGINEOUS ERECTORS, CHENNAI
		TATA, HYDERABAD
		BSES, MUMBAI
		UNIVERSAL ERECTORS, AHMEDABAD
1	STATOR FRAME FABRICATION	BHEL-HEEP, HARDWAR
		SIMPLEX, BHILAI
		UNITECH, SHAHARANPUR

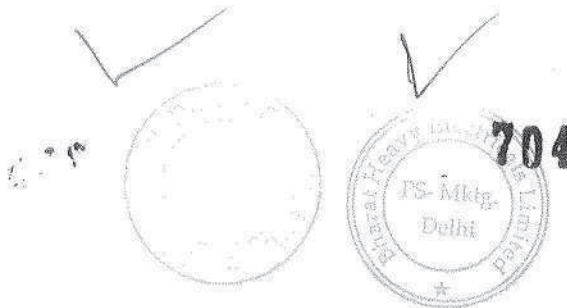


NTPC SAIL POWER COMPANY (P) LIMITED
ROURKELA POWER PROJECT
(PP - III : 1X250 MW)



TECHNICAL SPECIFICATION FOR
EPC PACKAGE

		SHAPE, HARDWAR
		JSSEC, SHAHARANPUR
		TOSHIBA, JAPAN
		TJTG, CHENNAI
		TOSHIBA, JAPAN
		mitsubishi electric, JAPAN
		BHILAI ENGG., BHILAI
2	STATOR FRAME MACHINING	BHEL-HEEP, HARDWAR
		TITG, CHENNAI
		TOSHIBA, JAPAN
		mitsubishi electric, JAPAN
3	STATOR CORE PUNCHING	TOSHIBA, JAPAN
		mitsubishi electric, JAPAN
4	SPRING & SPRING BASKET ASSLY	BHEL-HEEP, HARDWAR
5	KEY BAR FABRICATION AND MACHINING	TOSHIBA, JAPAN
6	THROUGH BOLT FABRICATION AND MACHINING	mitsubishi electric, JAPAN
7	KEY BAR ASSEMBLY	TOSHIBA, JAPAN
8	CORE BOLT ASSEMBLY	mitsubishi electric, JAPAN
9	CORE BEAM & DOVETAILS FOR STATOR	TOSHIBA, JAPAN
10	DOVE TAIL FOR STATOR	TOSHIBA, JAPAN
11	BORE RING FOR STATOR FABRICATION	mitsubishi electric, JAPAN
12	STATOR LAMINATION	BHEL-HEEP, HARDWAR
		BHEL-CSU, JAGDISHPUR
13	FLUX TRAP	BHEL-HEEP, HARDWAR
14	RIPPLE SPRING	AUGUST KREMPAL, GERMANY
15	TENSION BOLT FOR STATOR CORE (INSULATED)	BHEL-HEEP, HARDWAR
		mitsubishi electric, JAPAN
16	CORE TENSION BOLT (UNINSULATED) FOR STATOR	mitsubishi, JAPAN
17	STATOR CORE ASSLY	BHEL-HEEP, HARDWAR
		TOSHIBA, JAPAN
18	STATOR CORE ASSLY WITH SHIELD CORE	mitsubishi electric, JAPAN
19	STATOR BAR ASSEMBLY	TOSHIBA, JAPAN
		mitsubishi electric, JAPAN
20	BUS RING FABRICATION	TOSHIBA, JAPAN



	NTPC SAIL POWER COMPANY (P) LIMITED ROURKELA POWER PROJECT (PP – III : 1X250 MW) TECHNICAL SPECIFICATION FOR EPC PACKAGE	
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		MITSUBISHI ELECTRIC, JAPAN
21	RIPPLE SPRING	AUGUST KREMPAL, GERMANY
		ARISAWA, JAPAN
22	FLAT SPRINGS & SPRING BASKET, BHEL-HEEP, HARDWAR	BHEL-HEEP, HARDWAR
		STARE WIRE, BALLAVGARH
		KARL DIEDERICH, GERMANY
		MPK TOOLS, GHAZIABAD
23	BUS BAR CONNECTOR (TUBES)	ALCOBEX, JODHPUR
		LUVATA PORI
		HITACHI CABLE, JAPAN
		ORIENT COPPER, THAILAND
		IPCL, BHAVNAGAR
24	CONNECTING BUS BAR (PHASE BELTS) FABRICATION	SUMIKEL COPPER, JAPAN
		ORIENT COPPER, THAILAND
		MITSUBISHI ELECTRIC, JAPAN
25	SOLID COPPER CONDUCTOR (FOR STATOR BAR)	GEABUR & GRILLER, AUSTRIA
		PEARL INSULATION, BANGALORE
		COSMOS, BANGALORE
		MAHINDRA IND, BANGALORE
		UNIMAC, JAPAN
		HITACHI MAGNET WIRE, JAPAN
		MITSUBISHI ELECTRIC, JAPAN
26	HOLLOW COPPER INSULATED CONDUCTOR (STATOR BAR)	PEARL INSULATION, BANGALORE
		MAHINDRA IND, BANGALORE
		VOL ROLL, SWITZERLAND
		COSMOS, BANGALORE
		UNIMAC, JAPAN
		ISOLA, SWITZERLAND
		MITSUBISHI ELECTRIC, JAPAN
27	MICA SPLITTING INSULATING TAPE	ISOVOLTA (I) LTD, NASIK
		AISMALIBAR, SPAIN
		ISOVOLTA, AUSTRIA
		ISOLA, SWITZERLAND



	NTPC SAIL POWER COMPANY (P) LIMITED ROURKELA POWER PROJECT (PP – III : 1X250 MW)	
	TECHNICAL SPECIFICATION FOR EPC PACKAGE	

		MITSUBISHI ELECTRIC, JAPAN
		LOKSOLA, BANGALORE
28	MICA FLEECE INSULATION TAPE	NIHON MICA, JAPAN
		NRK, JAPAN
		ISO VOLATA, AUSTRIA
		MITSUBISHI ELECTRIC, JAPAN
29		HITACHI CHEMICAL, JAPAN
30	MOLDED INSULATION RING (FAN NOZZLE RIM)	PCT, USA
31	MOLDED INSULATION RING FOR ROTOR	MITSUBISHI ELECTRIC, JAPAN
32	GLASS CORDS	TOSSHIBA APPROVED SOURCE,
		MITSUBISHI APPROED SOURCE
33	OVER HANG SUPPORT RING	ROCHLING, GERMANY
		PCT, USA
		HITACHI CHEMICAL, JAPAN
34	OVERHANG SLIDING SYSTEM	MITSUBISHI ELECTRIC, JAPAN
35	STATOR SLOT WEDGER (RAW MATERIAL)	MICAPLY, BHOPAL
		PERMALI WALLACE, BHOPAL
		TEXPLAS, HARIDWAR
		ISOLVOLTA, AUSTRIA
		SHORITSU KOGYO, BHOPAL
		PERMALI WALLACE, BHOPAL
		MITSUBISHI ELECTRIC, JAPAN
36	INSULATING HOSES LINE FOR PRIMARY WATER	DR SCHNABEL GMBH & CU KG
		LIMBURG, GERMANY
		CRANE RESISTOFLEX, USA
		SAKURA RUBBER, JAPAN
		MITSUBISHI ELECTRIC, JAPAN
37	CIRCUIT RINGS FORMING	BHEL, HARIDWAR
		SIEMENS, GERMANY
38	DLEAD (FL CORE BAR)	BOLTAN, UK
		BAOSHIDA SWISS METAL, UK
		KME, GERMANY
		ZOLLERN GMBH, GERMANY
		INDIAN METAL & ALLOYS, KOLKATA
		MADRAS CUUPRAM, CHENNAI
		PAHALADRAI, KANPUR



	NTPC SAIL POWER COMPANY (P) LIMITED ROURKELA POWER PROJECT (PP - III : 1X250 MW) TECHNICAL SPECIFICATION FOR EPC PACKAGE	
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39	HEADER FOR STATOR (ASSEMBLY)	BHEL-HEEP, HARDWAR
		TOSHIBA, JAPAN
		TOPAZ, VADODARA
		TUBE PRODUCT, VADODARA
		MITSUBISHI ELECTRIC, JAPAN
40	HEADER TUBES	SUMITOMO, JAPAN
		TUBEX, JAPAN
		MANNESMAN, GERMANY
41	ETS MATERIAL	NIPPON, JAPAN
		ALLOVERZE, GERMANY
		ARCEL OR INT, LUXAMBOURG
		SALZGITTER (PRESSUAG), GERMANY
		MITSUBISHI, JAPAN
		JFE, JAPAN
		THYSEEN KRUPP, GERMANY/NASIK
42	BAFFLE RING & BAFFLERING CARRIER	BHEL-HEEP, HARDWAR
		ERGOCAST, GERMANY
		SCHMOLZ+BICKENBACH, GERMANY
		RV ENGG. BALLABGARH
43	SUPPORT/PRESSURE PLATE	BHEL-HEEP, HARDWAR
44	WATER BOX FOR STATOR BAR	MADRASS CUPRUM, GERMANY
		ORIENTAL COPPER, THAI
		TOYO KOGYO, JAPAN
		MITSUBISHI, JAPAN
		SOCITETTA METALLURGICA, ITALY
45	MANIFOLD FOR STATOR	MADRAS CUUPRAM, CHENNAI
46	END PLATE (CORE PRESS RING & FINGERS)	BHEL-HEEP, HARDWAR
		TOSHIBA, JAPAN
		MITSUBISHI ELECTRIC, JAPAN
47	STATOR BAR & WINDING ASSLY	BHEL-HEEP, HARDWAR
		TOSHIBA, JAPAN
		MITSUBISHI ELECTRIC, JAPAN
48	GENERATOR SHAFT FORGING	SDF TURNI, ITALY
		SUMITOMO, JAPAN
		BUDERUS EDELSTAHI, GERMANY
		SAARSCHMIEDE, GERMANY





NTPC SAIL POWER COMPANY (P) LIMITED
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TECHNICAL SPECIFICATION FOR
EPC PACKAGE

		JCFC, JAPAN
		PILSON, CZECH
		OMZ, RUSSIA
		CRUIST FORGE, FRANCE
		JSW, JAPAN
		FORGE MASTER, UK
49	GENERATOR MACHINING	BHEL-HEEP, HARDWAR
		TOSHIBA, JAPAN
		TJTG, CHENNAI
		NUGO, ROMANO, ITALY
50	CURRENT CARRYING BOLTS FOR ROTOR	BHEL-HEEP, HARDWAR
		TOSHIBA, JAPAN
		TOYO KOGYO, JAPAN
		MITSUBISHI ELECTRIC, JAPAN
51	ROTOR COIL FORMING	BHEL-HEEP, HARDWAR
		TOSHIBA, JAPAN
		MITSUBISHI ELECTRIC, JAPAN
52	ROTOR SLOT ANGLE	VON ROLL ISOLA, FRANCE
		ABB, SWITZERLAND
		BHEL-HEEP, HARDWAR
		TAXPLAS, HARDWAR
		PCT, USA
		HITACHI CHEMICAL, JAPAN
		MITSUBISHI ELECTRIC, JAPAN
53	ROTOR SLOT WEDGES & DAMPER WEDGES FABRICATION & MACHINING	FIAT, ITALY
		TOSHIBA, JAPAN
		MURAKAMI, JAPAN
		OTOKUMUPOR (LUVATA), FINLAND
		MITSUBISHI ELECTRIC, JAPAN
54	INSERTING FORGING AND MACHINING	BHEL-HEEP, HARDWAR
55	FIELD LEAD CORE BAR FOR ROTOR	BHEL-HEEP, HARDWAR
		KME, GERMANY
		BAOSHIDA SWISS METAL, GERMANY
		ORIENTAL COPPER, THAILAND
		INDIAN METAL & ALLOYS, KOLKATA
		HITACHI CABLE, JAPAN



	NTPC SAIL POWER COMPANY (P) LIMITED ROURKELA POWER PROJECT (PP - III : 1X250 MW) TECHNICAL SPECIFICATION FOR EPC PACKAGE	
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		MISTSUBISHI ELECTRIC, JAPAN
56	D LEAD (FL CORE BAR) & CONTACT BOLT FOR SLIP RING	TOSHIBA, JAPAN
57	D LEAD (FL CORE BAR) & CONTACT BOLT FOR SLIP RING	MISTSUBISHI ELECTRIC, JAPAN
58	MULTI CONTACT BAND	MUTI CONTACT BAND, GERMANY / SWITZERLAND
59	RETAINING RING (RAW / MATL) AND MACHINING	SAARSCHMIEDE, GERMANY
		BHEL-HEEP, HARDWAR
		JSW, (SUMITOMO), JAPAN
		KOBE STEEL, JAPAN
60	RETAINING RING FORGING (MAT-CR, MN1818)	JSW, JAPAN
		SAARSCHMIEDE, GERMANY
		KOBE STEEL, JAPAN
		FORTEH, FRANCE
61	RETAINING RING MACHINING	ENERGIETECHNIK, GERMANY
		TOSHIBA, JAPAN
		MITSUBISHI ELECTRIC, JAPAN
62	FAN BLADE FOR COMPRESSOR M/C	BHEL-HEEP, HARDWAR
		STARWIRE, BALLABHGARH
63	FAN BLADE ASLY ON ROTOR	TOSHIBA, JAPAN
64	FAN BLADE FORGING & MACHINING	MITSUBISHI ELECTRIC, JAPAN
		MURAKAMI, JAPAN
65	CONTACT BOLT)RAW MATERIAL CU CR ZR ROUNDS)	SOCITETTA METALLURGICA, ITALY
		BUNT METAL, AUSTRIA
66	RADIAL LEADS	K.M. EUROPA, GERMANY
		SWISS METAL SERKE, SWITZERLAND
		MKM MANSFELDER, GERMANY
		OUTO JUMPU, FINLAND
67	LEAD BOX FABRICATION & MACHINING	MITSUBISHI ELECTRIC, JAPAN
68	ROTOR WINDING ASSLY (GEN)	BHEL-HEEP, HARDWAR
		TOSHIBA, JAPAN
		MITSUBISHI ELECTRIC, JAPAN
69	GENERATOR ROTOR FINAL	BHEL-HEEP, HARDWAR

	NTPC SAIL POWER COMPANY (P) LIMITED ROURKELA POWER PROJECT (PP – III : 1X250 MW)	
TECHNICAL SPECIFICATION FOR EPC PACKAGE		

		TOSHIBA, JAPAN
		MITSUBISHI ELECTRIC, JAPAN
70	SEAL ASSLY (RING & HOUSING)	TOSHIBA, JAPAN
71	BEARING SHELL FORGING AND MACHINING (GEN & EXC)	BHEL, HARIDWAR
		CFFP, HARDWAR
		KISSAN ENGG, GHAZIABAD
		VISHNUFORGE, BANGALORE
		BAY FORGE, CHENNAI
		EURO BEARING, ITALY
		OMEGA, BHOPAL
72	BEARING SHELL (GEN & SLIP RING) FORGING	MITSUBISHI ELECTRIC, JAPAN
		OMEGA THERMIT, BHOPAL
		EURO BEARING, ITALY
		DUMDUM, KOLKATA
		DSE, KOREA
		DYM, KOREA
73	SLIP RING SHAFT COUPLING BOLT	TOYO KOGYO, JAPAN
74	HIGH PRESSURE HOSES FOR BEARING PEDESTAL BEARING	PARKER HANNIFINE, GERMANY
75	END SHIELD FABRICATION	BHEL-HEEP, HARDWAR
		SHAPE ENGG., HARIDWAR
		ISGEC, SHAHARANPUR
		UNITECH, SHAHARANPUR
		HIMILE, CHINA
		TOSHIBA, JAPAN
		MITSUBISHI ELECTRIC, JAPAN
76	END SHIELD MACHINING	HIMILE, CHINA
77	SHAFT SEALING AND BEARING SHIELD	BHEL-HEEP, HARDWAR
78	COMPRESSOR HUB M/C & ASSEMBLY	BHEL, HARIDWAR
79	HYDROGEN COOLER	BHEL-HEEP, HARDWAR
		ENERGYN, KOREA
		GEA, GERMANY
		KITASHIBA ELECTRIC, JAPAN
80	CORE TENSION BOLT (UNINSULATED) FOR STATOR	BHEL-APPROVED

	NTPC SAIL POWER COMPANY (P) LIMITED ROURKELA POWER PROJECT (PP - III : 1X250 MW) TECHNICAL SPECIFICATION FOR EPC PACKAGE	
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81	RUBER ITEM (GASKET)	KONNO GUM, JAPAN
		IRP, HARDWAR
		SPACE AGE, MUMBAI
		MUMBAI OIL SEALS
82	DRY AIR BLOWING	BRY AIR, FARIDABAD
		MUNTER, ENGLAND/ SWEDEN
83	DE LEAD ASSLY FOR ROTOR	BHEL-HEEP, HARDWAR
84	DE LEAD ASSLY FOR SLIP RING	MITSUBISHI ELECTRIC, JAPAN
85	TUBES FOR COOLERS (BRASS / COPPER TUBES)	MULTIMETAL, KOTA
		METAL ALLOYS, JAMNAGAR
		ALCOBAX, JODHPUR
86	FINNING OF COOLER TUBES	LVHE, HARDWAR
		LAXMI, BHOPAL
		GEI HAMON, BHOPAL
		A1 INDUSTRIES, MUMBAI
87	TERMINAL BOX FABRICATION AND MACHINING	BHEL-HEEP, HARDWAR
		TOSHIBA, JAPAN
88	CONFORMABLE ROPE	SUMICA, HARDWAR
		B1W, GERMANY
		TEXPLAS, HARDWAR
89	SEMI CONDUCTING VARNISH	SWISS INSULATION WORKS, SWITZERLAND
		VON ROLL, SWITZERLAND
		ASTRO CHEMICAL, USA
90	INSULATING BOLTS (RAW MATERIALS)	AUGUST KREMPAL, GERMANY
		ROCHLING, GERMANY
		ISOVOLTA, AUSTRIA
		PERMALI WALLACE, BHOPAL
		TEXPLAS, HARDWAR
		MICAFILL, SWITZERLAND
		SWISS INSULATION WORKS, SWITZERLAND
		MICAPLY, BHOPAL
		ISOLA, FRANCE
		MITSUBISHI ELECTRIC, JAPAN
		VON ROLL ISOLA, FRANCE





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TECHNICAL SPECIFICATION FOR
EPC PACKAGE

91	PW STORAGE TANK	JIMC, KOREA
		mitsubishi electric, japan
92	PW FILTER FINE FILTER OIL FILTER	BOLL & KIRCH, GERMANY
		K&H EPPEN STEINES, GERMANY
		L&Z VERFAHRENST, GERMANY
93	PW TANK INCLUDING PW PIPING	BHEL-HEEP, HARDWAR
94	VAPOUR EXHAUSTER	SK SYSTEM, DELHI
		C DOCTOR, AHMEDABAD
95	ION EXCHANGER	ION EXCHANGER, MUMBAI
		THERMAX, PUNE
		ION EXCHANGER, PUNE
96	PW PUMP & FILTER UNIT, PIPING	BHEL-HEEP, HARDWAR
		JIMC, KOREA
		mitsubishi electric, japan
97	PRIMARY WATER PUMP	MATHER & PLATT, PUNE
		SULZER PUMPS, NAVI MUMBAI
		KSB INDIA, PUNE
98	PRIMARY WATER CONN PIECE & PIPE	mitsubishi electric, japan
		JIMC, KOREA
		CHORYO HIGH TECH, JAPAN
99	PW COOLER FOR STATOR	BHEL-HEEP, HARDWAR
		ALFA LVEL, PUNE
		TRANter INDIA, PUNE
		GEA ECOFLEX INDIA, MUMBAI
		IDMC, GUJARAT
		JIMC, KOREA
100	TERMINAL BUSHING (CONDENSER TYPE)	SIEMENS, GERMANY
		HSP, HOSCHSPANNUNSGERATE, PRZ GMBH, GERMANY
		EMIL HAEFLY (TRENCH), SWITZERLAND
		PASSONI & VILLA, ITALY
		mitsubishi electric, japan
		TRENCH, SWITZERLAND
101	HYDROGEN DRIER	JINDAL ELECT, ROORKEE
		MELLCON ENGS PVT LTD., NEW DELHI
		mitsubishi electric, japan



	NTPC SAIL POWER COMPANY (P) LIMITED ROURKELA POWER PROJECT (PP - III : 1X250 MW) TECHNICAL SPECIFICATION FOR EPC PACKAGE	
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102	SEAL OIL COOLER	GEA ECOFLEX INDIA, MUMBAI
		BHEL-HEEP, HARDWAR
		TRANSTER INDIA, PUNE
		IDMC, GUJARAT
		ALFA LVEL, PUNE
103	ALKALYSER UNIT	BHEL-HEEP, HARDWAR
104	SEAL OIL PUMP	ALLWEILER, GERMANY
		TUSHACO PUMPS, DAMAN
		UT PUMPS, FARIDABAD
		KOSAKA LABORATORY, JAPAN
105	PRIMARY WATER PUMP	KSB INDIA, PUNE
		SULZER INDIA, NAVI MUMBAI
		EBARA SEISAKUSHO, JAPAN
		MATHER & PLATT, PUNE
106	CONTROL PANEL FOR GEN AUX	BHEL-HEEP, HARDWAR
		BHC ELECTRIC, FARIDABAD
		JACKSON, NOIDA
107	CONTROL PANEL FOR MECHANICAL SYSTEM	TOSHIBA, JAPAN
		mitsubishi electric, japan
108	H2/CO2/N2 CYLINDER	EVEREST KANTO, MUMBAI
		BPCL, ALLAHABAD
109	SEAL OIL UNIT & PIPING	BHEL-HEEP, HARDWAR
		JIMC, KOREA
		mitsubishi electric, japan
110	SEAL OIL VALVE RACK	BHEL-HEEP, HARDWAR
		JIMC, KOREA
111	SEAL OIL STORAGE TANK	BHEL-HEEP, HARDWAR
		JIMC, KOREA
112	GAS UNIT & PIPING	BHEL-HEEP, HARDWAR
113	CO2 VAPOURISER	BHEL-HEEP, HARDWAR
		mitsubishi, japan
114	GENERATOR ASSEMBLY AT WORKS INCLUDING TERMINAL BUSHING	BHEL-HEEP, HARDWAR
115	SILVER BEARING COPPER HOLLOW STRIPS (ROTOR COIL)	UMS SWISS METAL WORKE DORANCH, SWITZERLAND
		LUVATA PORI, FINLAND



	NTPC SAIL POWER COMPANY (P) LIMITED ROURKELA POWER PROJECT (PP – III : 1X250 MW)	
	TECHNICAL SPECIFICATION FOR EPC PACKAGE	

		BAOSHIDA SWISS METAL, SWITZERLAND
		BUNT METAL, AUSTRIA
		KM EUROPA, GERMANY/FRANCE
		ORIENTAL COPPER, THAILAND
		HITACHI CABLE, JAPAN
		OTOKUMUPOR (LUVATA), FINLAND
		FURUKAWA ELECTRIC, JAPAN
116	COMPRESSOR HUB, MAGNETIC HUB, CENTERING RING, INTERMEDIATE RING, CARRIER HUB, DIODE WHEEL FORGING	BHEL-HEEP, HARDWAR
117	CENTERING RING FORGING	BAY FORGE, CHENNAI
		NISHIMAKI IRON WORKS, JAPAN
		MINATO KIKO, JAPAN
		GOODLUCK, GHAZIABAD
118	INTERMEDIATE RING FORGING	ZOLLERN GMBH, GERMANY
119	CENTERING RING & INTERMEDIATE RING MACHINING	TOSHIBA, JAPAN
		mitsubishi electric, JAPAN
120	WEDGES FOR ROTOR (DAMPER+SLOT)	BUNT METAL, AUSTRIA
		KM EUROPA, GERMANY/FRANCE
		UMS SWIS, GERMANY
		LUVATA PORI, FINLAND
121	GENERATOR TEST FIELD RUN	BHEL-HEEP, HARDWAR
		mitsubishi electric, JAPAN
		TOSHIBA, JAPAN
122	EXCITOR / SLIP RING SHAFT FORGING	ALL SOURCE FOR GENERATOR SHAFT FORGING, HARDWAR
		BHEL-CFFP, HARDWAR
123	SLIP RING SHAFT & EXTENDED FORGING	BHARAT FORGE, PUNE
124	EXCITER CORE PRESS RING	SCHMOLZ+BICKENBACH, GERMANY
		RV ENGG, BALLABHGARH
125	EXCITOR / SLIP RING SHAFT MACHINING	BHEL-HEEP, HARDWAR
126	SLIP RING SHAFT & EXTENDED SHAFT MACHINING	TJTG, CHENNAI
		TOSHIBA, JAPAN
127	SLIP RING SHAFT ASSLY	TOSHIBA, JAPAN

	NTPC SAIL POWER COMPANY (P) LIMITED ROURKELA POWER PROJECT (PP - III : 1X250 MW) TECHNICAL SPECIFICATION FOR EPC PACKAGE	
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		MITSUBISHI ELECTRIC, JAPAN
128	EXCITER STATOR MAIN & PILOT (FABRICATION & MACHINING)	BHEL-HEEP, HARDWAR
129	EXCITER HOUSING (FABRICATION & MACHINING)	BHEL, HARIDWAR
130	EXCITER STATOR PILOT	BHEL-HEEP, HARDWAR
131	EXCITER ROTOR BALANCING	BHEL-HEEP, HARDWAR
132	RECTIFIER WHEEL MACHINING & ASSLY	BHEL-HEEP, HARDWAR
133	DE LEAD ASSLY FOR EXCITER	BHEL-HEEP, HARDWAR
134	EXCITER ASSLY (MAIN & PILOT)	BHEL-HEEP, HARDWAR
135	COMPRESSOR HUB, MAGNETIC HUB, CENTERING RING, INTERMEDIATE RING, CARRIER HUB, DIODE WHEEL MACHINING	BHEL-HEEP, HARDWAR
136	EXCITER BRG PEDESTAL	BHEL-HEEP, HARDWAR
137	EXCITER AIR COOLER	GEA, GERMANY
		LVHE, HARDWAR
		ENERGYN, KOREA
138	EXCITER TEST RUN	BHEL-HEEP, HARDWAR
139	BED PLATE FABRICATION	BHEL APPROVED SOURCE
140	PMG MAGNET & SHOE ASSLY	THYSEEN KRUPP, GERMANY
141	PERMANENT MAGNET & SHOE ASSLY FOR EXCITER	BHEL-HEEP, HARDWAR
142	RC BLOCK	ZENTRONICS, HYDERABAD
143	MAIN EXCITER ARMATURE WINDING	BHEL-HEEP, HARDWAR
144	BALANCING RING	SCHMOLZ+BICKENBACH, GERMANY
		ERGO CAST, GERMANY
		RV ENGG, BALLABHGARH
145	FOUNDATION BOLT, SOLE PLATE, DRY AIR BLOWER IF APPLICABLE	SIMPLEX, RAIPUR
		JAGDEEP, BATALA
		MITSUBISHI ELECTRIC, JAPAN
146	GENERATOR ASSEMBLY AT WORKS INCLUDING TERMINAL BUSHING	TOSHIBA, JAPAN
		MITSUBISHI ELECTRIC, JAPAN
147	BRUSH GEAR ASSEMBLY	TOSHIBA, JAPAN
		MITSUBISHI ELECTRIC, JAPAN



	NTPC SAIL POWER COMPANY (P) LIMITED ROURKELA POWER PROJECT (PP – III : 1X250 MW) TECHNICAL SPECIFICATION FOR EPC PACKAGE	
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148	CARBON BRUSH	MERSEN, CHINA
		MORGAN, KOREA
		VIDYUT CARBON, HARDWAR
		ASSAM CARBON, KOLKATA
149	BRUSH HOLDER	FULMER, USA
		NATIONAL CARBON, KOKKATA
		MITSUBISHI ELECTRIC, JAPAN
150	EXCITATION SYSTEM	TOSHIBA, JAPAN
		KITASHIBA ELECTRIC, JAPAN
		ABB, SWITZERLAND
		SIEMENS, GERMANY
		ALSTOM, FRANCE
		BHEL, BANGALORE
		MITSUBISHI ELECTRIC, JAPAN
151	EXCITATION TRANSFORMER (DRY TYPE)	RAY CHEM RPG, PUNE
		VIJAY ELECTRICAL, HYDERABAD
		RITZ INSTRUMENT XMER, GERMANY
		KEC, PUNE
		BHEL, JHANSI
152	FIELD BREAKER	LENNOIR, FRANCE
		ABB, SWITZERLAND
153	OFF LOAD ISOLATORS	C&S, DELHI
154	CONDUCTION MONITORING CT	ABB, SWEDEN
		VAC, GERMANY
155	FILTERS	CSCHAFFENER, GERMANY
156	FERRITE CORE REACTORS (FOR DAVR)	MAGNETICS, USA
157	EXCITATION AC/DC BUSDUCT	TOSHIBA, JAPAN
158	ROTOR FLUX MONITOIRING SYSTEM	GE, USA
		MITSUBISHI ELECTRIC, JAPAN
159	SUPPORT BRAKET	MITSUBISHI ELECTRIC, JAPAN
160	SHIELD PLATE	MITSUBISHI ELECTRIC, JAPAN
161	COMPRESSOR BLADE ASLY ON ROTOR	MITSUBISHI ELECTRIC, JAPAN
162	SEAL ASSLY (RING & HOUSING)	MITSUBISHI ELECTRIC, JAPAN
1	DDC MIS /HMI SYSTEM FOR SG TG AND BOP (#)	SIEMENS, GERMANY
		M/S. BHEL (MAX DNA), BANGALORE
		ABB, BANGALORE



	NTPC SAIL POWER COMPANY (P) LIMITED ROURKELA POWER PROJECT (PP - III : 1X250 MW)	
TECHNICAL SPECIFICATION FOR EPC PACKAGE		

		EMERSON, PAWANE
		GE, USA
		HONEYWELL, PUNE
		YOKOGAWA, BANGALORE
		TOSHIBA, JAPAN
		DOSAN HF CONTROL, USA
		INVENSYS, MUMBAI/ CHENNAI
		ALSTOM, NOIDA
		MHI, JAPAN
2	OPERATOR WORK STATIONS	DELL
		SIEMENS, FUJITSU
		HP/IBM - LENEVO / COMPAQ
3	FLAME MONITORING SYSTEM (SCANNER)	FORNEY, USA
		ABB, BANGALORE
	BOUGHT OUT ITEM SHALL BE FINALISED DURING DETAILED	DURAG, BANGALORE
		BFI, GERMANY
		BHEL, TRICHY
		LUCENT, DELHI
		HI-TECH, KOLKATA
4	HEA IGNITOR	UNISON INDUSTRIES, USA
		DURAG, GERMANY
		DURAG, BANGALORE
		IGNITION SYSTEM INC, USA
		TESI, ITALY
		HINDUSTAN THERMOMETER, AMBALA
5	FURNACE FLAME VIEWING SYSTEM (HIGH TEMPERATURE CCTV COPONENTS)	DIAMOND POWER, USA / SWEDEN
		TLT ENGG. PVT. LTD. , KOLKATA
		MIRION, UK
		TOSHNIWAL INDUSTRIES, AJMER
		LENOX, USA
		HI TECH SYSTEM AND SERVICES, KOLKATA
		DURAG, GERMANY





NTPC SAIL POWER COMPANY (P) LIMITED
ROURKELA POWER PROJECT
(PP - III : 1X250 MW)



TECHNICAL SPECIFICATION FOR
EPC PACKAGE

		DURAG, BANGALORE
		SABOTA GMBH, GERMANY
		PIPER GMBH, GERMANY
6	COAL FLOW MONITORING SYSTEM	PROMECON, GERMANY
		SWR ENGG., GERMANY
7	ACCUSTIC PYROMETERS	M/S. SCIENTIFIC ENVIRONMENT INSTRUMENT INC. , USA
		M/S. BONNENBERG+DRESCHER, GMBH, GERMANY
		LUCENT, DELHI
		HI-TECH, KOLKATA
8	COAL FEEDER CONTROL SYSTEM	STOCK, USA
		MERICK, USA
		STOCK REDELLER, BANGALORE
		MERICK, BANGALORE
9	ACCUSTIC COAL FLOW DETECTOR	STOCK, USA
		MERICK, USA
10	ON LINE CARBON IN ASH ANALYSER	GREENBANK ENERGY SYSTEMS, UK
		ABB, BANGALORE
		PROMECON, GERMANY
		BERHOLD TECHNOLOGIES, GERMANY
11	FURNACE EXIST GAS TEMPERATURE PROBE	DIAMOND POWER, INDIA/UK/USA
		CLYDE BERGMANN, INDIA/USA
12	BOILER TUBE LEAK DETECTIO SYSTEM	PROCON, UK
		RAMAN INSTRUMENTS, DELHI
		ACOUSTIC MONITORING INTERNATIONAL INC., USA
		HI-TECH SYSTEM AND SERVICES, KOLKATA
		INSTOTECH, SOUTH AFRICA
		BHELSONIC, TRICHY
13	COAL BUNKER LEVEL MONITOR	KRISTLER MORSE, USA
	STRAIN GAUGE TYPE COAL	THERMO RAMSAY, AUSTRALIA
14	TUBE THICKNESS METER	MAIN SUPPLIER APPROVED SOURCES
15	POSITIVE DISPLACEMENT FLOW METER	BROOKS, USA



	NTPC SAIL POWER COMPANY (P) LIMITED ROURKELA POWER PROJECT (PP - III : 1X250 MW) TECHNICAL SPECIFICATION FOR EPC PACKAGE	
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		BOPP & ROUTHER, GERMANY
		OVAL, JAPAN
		TOSHNIWAL CORPORATION HYVAC, CHENNAI
16	CORIOLOS TYPE MASS FLOW	KROHNE, GERMANY
		E&H, AURANGABAD
		SIEMENS, GERMANY
		YOKOGAWA, BANGALORE
		EMERSON, PAWANE
17	CONTROL VALVE FOR START UP SYSTEM	CCI, USA / SWITZERLAND / KOREA
		TYCO SAMPELL, GERMANY
18	CONTROL VALVE FOR SOOT BLOWER PRESSURE REDUCING SHI / RH ATEMPERATION	CCI, USA / SWITZERLAND / KOREA
		DRESSOR, MASONEILAN, FRANCE
		HORO, GERMANY
		EMERSON (FISHER), USA/FRANCE/JAPAN
		SPX COPES VULCAN, USA
		KOSO, JAPAN
		TYCO SAMPELL, GERMANY
		LESLIE, USA,
		DRESSOR, COIMBATORE
		IL, PALAKKAD
		MIL, ALWAYE
		KOSO, PALAKAD
		EMERSON, CHENNAI
		FLOW SERVE, BANGALORE
19	CONTROL VLAVE FOR BFP RECIRCULATION	CCI, USA / AUSTRIA / KOREA
		EMERSON (FISHER), USA/FRANCE/JAPAN
		DRESSOR, MASONEILAN, FRANCE
		HORO, GERMANY
20	CONTROL VALVE FOR FEED WATER FLOW CONTROL	CCI, USA / AUSTRIA / KOREA
		DRESSOR, MASONEILAN, FRANCE
		HORO, GERMANY



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	TECHNICAL SPECIFICATION FOR EPC PACKAGE	

		EMERSON (FISHER), USA/France/JAPAN
		SEMPPELL, GERMANY
		KOSO, JAPAN
21	CONTROL VALVE (OTHER THAN START UP CONTROL, BFP RC, FW FLOW CONTROL, SH/RH/SB CONTROL)	MIL, ALWAYE
		INSTRUMENTATION LIMITED, PALGHAT
		EMERSON, CHENNAI
		DRESSOR, COIMBATORE
		SPX COPEL VULCAN, USA
		LESILIE, BANGALORE
		FLOW SERVE, BANGALORE
		KOSO, PALAKAD
		FORBES ARCA, PUNE
		CCI, INDIA
22	TURBINE SUPERVISORY INSTRUMENTS ALOG WITH VIBRATION ANALYSIS SYSTEM.	GE BENTLY, USA
	REFER NOTE -1	MEGGITT (VIBROMETER), SWITZERLAND
		SHINKAWA, JAPAN
23	TEMPERATURE TRANSMITTER	EMERSON, USA/ PAWANE / SINGAPRE
		YOKOGAWA, JAPAN
		MOORE, USA
		M SYSTGEM, JAPAN
		ABB, GERMANY / FARIDABAD
		ENDRESS & HOUSER, AURANGABAD
		P&F BANGALORE
24	CONDUITS / PIPE (G)	REFER ELECTRICAL LIST
25	ELECTRONIC TRANSMITTERS (PRESSURE, DP)	EMERSON (ROSEMOUNT), USA /PAWANE
		FUJI ELECTRIC, CHINA
		YOKOGAWA, JAPAN
		ABB, FARIDABAD
		ABB, GERMANY / ITALY