



GUJARAT STATE ELECTRICITY CORPORATION LIMITED


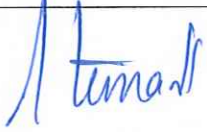
**1 X 800 MW SUPER CRITICAL THERMAL POWER PROJECT
UNIT 8 at WANAKBORI TPS**


COAL HANDLING PLANT

ENQUIRY SPECIFICATION FOR

**SUPPLY OF SPARE INSTRUMENTS FOR HYDRAULIC POWER PACK
BHARAT HEAVY ELECTRICALS LIMITED**

INDUSTRIAL SYSTEMS GROUP BANGALORE

Nihas K		Hemantha Udupa Y J	
NAME	SIGN	NAME	SIGN
PREPARED BY		CHECKED AND APPROVED BY	

BHEL- ISG, Bangalore 	Coal Handling and Ash Handling System 1x800 MW Super critical Thermal Power Project Unit-8 at Wanakbori TPS	Document Number IS-1-14-2003/TS-065
	ENQUIRY SPECIFICATION FOR SUPPLY OF SPARE INSTRUMENTS FOR HYDRAULIC POWER PACK	

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The bidder shall confirm compliance to the following by signing/ stamping this sheet and furnishing same with the offer.

1. The scope of supply, technical details, construction features, design parameters etc. shall be as per technical specification & there are no exclusion/ deviation with regard to same.
2. There is no deviation with respect to specification.
3. Only those technical submittals which are specifically asked for in NIT to be submitted at tender stage shall be considered as part of offer. Any other submission, even if made, shall not be considered as part of offer.
4. Any comments/ clarifications on technical/ inspection requirements furnished as part of bidder's covering letter shall not be considered by BHEL, and bidder's offer shall be construed to be in conformance with the specification.
5. Any changes made by the bidder in the price schedule with respect to the description/ quantities from those given in Price Bid/Unpriced Bid of the specification shall not be considered (i.e., technical description & quantities as per the specification shall prevail).

SECTION - I


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GENERAL SITE INFORMATION

1.0	GENERAL SITE CONDITIONS	
1.	Owner / Purchaser	: Gujarat State Electricity Corporation Ltd. (GSECL), Vadodara
2.	Engineer/consultant	: Development Consultants Private Limited (DCPL), Kolkata
3.	Project Title	: 1x800 MW, Super-Critical TPS, Unit # 8 at Wanakbori, Gujarat
4.	Project location	: Wanakbori, Kheda district, Gujarat
5.	Elevation (above Sea level)	: 72M
6.	Temperatures : Daily Average	: Max of daily average. 34 deg.C, Min daily average 11.7 deg.C
7.	Temperatures : Ambient air temp	: Max Daily: 34 deg C; Max yearly: 30 deg C
8.	Max. Ambient air temp.	: 42 deg C
9.	Wet bulb Temp	: 28 deg.C
10.	Design temperature	: 50 deg. C
11.	Relative humidity	: Varies between 50% and 95% (Design for 100%)
12.	Annual average rain fall	: 750 mm
13.	Wind design : Calculations for wind effect shall be in accordance with IS:875-1987(Part-3) taking into account the following	: Basic wind speed, Vb = 39 m/s
14.	Seismic data (As per IS: 1893 latest issue)	: Zone III Designs & design coefficients will be based on IS 1893:2002
15.	Nearest railway station	: Sevalia
16.	Nearest airport	: Vadodara
1.1	POWER SUPPLY SYSTEMS	
1.1.1	MV System (161kW-1500kW Drives)	
	System Voltage	: 6.6 kV \pm 10%, 3 Phase, 3 wire and 3.3 kV \pm 10%, 3 Phase, 3Wire
	System Frequency	: 50 Hz \pm 5%
	Combined Variation	: 10% (absolute)


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		:	
	System Fault level	:	40 kA for 3s
	System Earthing	:	Non effectively earthed though resistance. Earth fault current limited to 300A for 10 sec.
1.1.2	LV System (Drives up to 160kW)		
	System A.C voltage	:	415 V \pm 10%
	System Frequency	:	50 Hz \pm 5%
	Combined Variation	:	10% (absolute sum)
	Phase	:	3 ph, 4- wire
	System fault level	:	50 kA for 1s
	System Earthing	:	Solidly grounded
	Panel space heater, lighting, AC Control & Protection Supply	:	240V, Single phase
1.1.3	DC System		
	System Voltage	:	220V (190-240V), 2-wire
	Fault level	:	25 kA
	System Earthing	:	Unearthed

Environmental Conditions: All equipments & accessories shall be suitable for conductive dusty laden corrosive atmosphere normally experienced in Coal Handling Plants and all equipments & accessories shall be designed to resist vermin, fungus, dew etc.

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SECTION - II
SCOPE OF SUPPLY

2.0 Scope of supply includes Manufacturing, testing, inspection at manufacturer's works, packing and delivery of materials to site as per the Bill of Quantity (BOQ) mentioned below.

SI No	Description	Part No / reference No	QTY	UOM
A	SPARE FOR CHP AND AHS PLC			
A.1	Praportional Amplifier Controller Card Lynch Electronics LE PS X	Detail to be provided by Bidder	1	Nos
A.2	RPM Meter Autonics Pulse Meter MP5W		1	Nos
A.3	Speed Encoder Efechor 100 IFS 703 DC NP		1	Nos
A.4	Pressure Switch Elector 500 PT5400 PT-400-SEG-14-A-ZVG/US/ IW		1	Nos
A.5	Pressure Switch Elector 500 PT5402 PT-100-SEG-14-A-ZVG/US/ IW		1	Nos
A.6	Limit switch for suction valve Jail Balaji BC 9 mini limit switch JMLSTNR		3	Nos

Note:

The equipment shall be designed keeping in view the statutory requirements of Indian Electricity Act, 2013 especially for state of Gujarat.

Bidder to supply the same make and model as mentioned in above BOQ.

2.1 Application

For Coal handling and Ash handling system.

2.2 Operational Requirements:

All the Equipment's shall be suitable for high ambient, high humid tropical Indian climatic conditions. All the cables shall be designed to withstand the mechanical, electrical and thermal stresses under the foreseen steady state and transient/fault conditions, and shall be suitable for the proposed method of installation.


2.3 PACKING:

Items shall be packed individually in a strong non-returnable wooden crate in such a manner to prevent damage to the components during transportation and handling up to installation at site. Packing shall be designed to prevent entry of dust, ingress of moisture and other foreign materials. The crate shall be covered with waterproof polythene sheets.

The packing shall carry the following information stenciled on the packing and also contained in label attached to it. The label shall be of anodized aluminum and shall be fixed on both sides of Packing.

- BHEL-ISG (PO Number)
- M/S GSECL

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- Manufacturer's name or trade make
- Item
- Year of manufacture
- Approx. gross mass.

SECTION-III
QUALITY ASSURANCE, INSPECTION & TESTING

- 3.0** All the necessary & applicable tests as per standards shall be performed & internal inspection reports and Test Certificates & Guarantee Certificates shall be furnished for verification before Dispatch.
- 3.1** However, BHEL/Customer reserves the right to inspect the items prior to supply, at manufacturer's works if required.
- 3.2** The materials shall comply with all quality standards referred in standards.
- 3.3** Bidder to submit COC and Fitment cum interchangeability certificate as per Annexure- for dispatch clearance.
- 3.4** GA, Technical datasheet of each item to be submitted to BHEL before dispatch

IMPORTANT: The vendor shall maintain and ensure necessary safety measures as required for inspection and tests and if any test equipment is found not complying with proper safety requirements, then the inspection agency may withhold inspection till such time the desired safety requirements are met.

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ANNEXURE-1

Date:

COMPLIANCE CERTIFICATE
PROJECT : 1x800MW WANAKBORI TPS

This is to certify that the material procured against below list confirms to the material specification as given in the drawing/purchase order for 1x800MW Wanakbori TPS

SNo.	Make	Items	Rating	BHEL BBU Ref	Qty	Unit
1						

This is to confirm that:

- The above spare components are having interchangeability and are in line with components already supplied by M/s against main supply.
- Vendor TC reviewed by M/s and enclosed.

Thanking You

M/s

FITMENT-CUM-INTERCHANGEABILITY-CUM-GURANTEE CERTIFICATE

Client: GSECL GUJARAT.
Project Name: 1 x 8000 MW Wanakbori TPS
P.O.No:

SNo.	ITEMS	Main Equipment DRAWING No.	B.B.U. No.	QTY.
1				

We hereby certify that the above –mentioned items are as per relevant standard and comply in all respect with performance and system requirements. We stand guarantee for its fitment and in case of any fitment problems, we shall assist, M/s GSECL or give free replacement as the case may be.

We also declare that all make of spares items furnished in COC is the same as that of the make of the corresponding items used in the main equipment (the make of which was approved by GSECL and dispatched already).

We also confirm that above items are free from any defects due to faulty design, poor material and bad workmanship. However, this guarantee is valid under normal condition and subject to proper operation and maintenance of plant and equipment in accordance with operation and maintenance manual/instruction and subject to good condition of material handled and norms and specifications adhered to.

For M/s