



An ISO 9001
Company

Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli – 620014, TAMIL NADU, INDIA

MATERIALS MANAGEMENT

TITLE CO Analyser	Phone: +91 431 257 7072 Fax : +91 431 252 0719 Email : gmuru@bheltry.co.in
------------------------------------	--

	Reference Number: Enquiry 1701701162	Enquiry Date: 31.05.2017	Due date for submission of quotation: 22.06.2017
--	---	---	---

You are requested to quote the Enquiry number date and due date in all your correspondences. This is only a request for quotation and not an order

BHEL/Trichy is looking for empanelment of new vendors for supply of " CO Analyser"

BHEL commercial terms & conditions and all annexure can be downloaded from BHEL web site <http://www.bhel.com> or from the Government tender website <http://tenders.gov.in> (public sector units) Bharath Heavy Electricals Limited) under enquiry reference "XXXXXXXXXX "

Tenders should reach us before 14:00 hours on the due date
Technical bid will be opened at 14:30 hours on the due date
Tenders would be opened in presence of the tenderers who have submitted their offers and who may like to be present.

Yours faithfully,
For Bharath Heavy Electricals Limited

All the tenders may be addressed to the following address:

**The Tender Opening Cell / MM
Room No: 26, Building 24, Ground Floor
Bharat Heavy Electricals Limited
TIRUCHIRAPALLI 620014**

In case personal delivery of the offer, it shall be dropped into the respective box kept in Room No: 26, after duly entering the data in the system.

Offers will be accepted only up to 14.00 Hrs on the due date. Therefore, vendors shall ensure to submit the offers well before this time. All due date extension requirements should be addressed to the respective Purchase mail IDs. All the due date extension requests from vendors will be considered only up to 48 hours before the due date and time.

Vendors are requested to avoid submission of offers through e mail / fax. In case of any unavoidable situation, offers shall be sent through e mail to the following mail ID only tender_cell@bheltry.co.in.

As tenders are being opened by Common Tender Opening Cell, offer covers should be sealed with tenderer's distinctive seal and super scribed with correct Tender No. item of supply and due date of opening.

The offers will be opened at 14.30 hrs on the due date of the tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening. Late and delayed offers are liable to be rejected.

The bidder along with its associate/ collaborators/ sub-contractors/ sub-vendors/ consultants/ service providers shall strictly adhere to BHEL fraud prevention policy displayed on BHEL website <http://www.bhel.com> and shall immediately bring to the notice of BHEL management about any fraud or suspected fraud as soon as it comes to their notice.

The supplier shall submit EI/EII forms to BHEL time to time as indicated by the BHEL and in case of inordinate delay in issuing EI/EII forms, then BHEL reserves the right to deduct 5% of the value of the supplied items against which EI/EII forms pending to be issued



General Note: **BHARAT HEAVY ELECTRICALS LIMITED**

Page:1/6

(A Government of India Undertaking)
HIGH PRESSURE BOILER PLANT
PURCHASE DEPARTMENT - FOSSIL BOILERS
THIRUCHIRAPALLI - 620014
TAMILNADU (INDIA)

PHONE : 0431-2574111
GRAMS : BHARATELEC
FAX NO: 0431-2520719
E-mail :
Web :

429-002/A

OFFICE COPY

Collective No.

1701701162

Enquiry Date

31.05.2017

**Due Date For
Quotation**

22.06.2017

Please quote Enquiry No, Date and due date in all
correspondences.
This is only a request for quotation and not an order

Item	Description	Unit	Quantity	Delivery Quantity	Schedule Date
10	L068319708402001 9708411-CO ANALYSER CO ANALYSER (IN-SITU TYPE) COMPLETE WITH ELECTRONICS AND ALL OTHER ACCESSORIES AS PER SPECIFICATION CI:0683:CO. REMARKS: 1. APPLICABLE QUALITY PLAN: QA:CI:STD:QP48. 2. PACKING PROCEDURE SHALL BE AS PER ENQUIRY SPECIFICATION.	NO	4.000	4.00	24.10.17

General Note:

1. This requirement is for Neyveli 500MW - 1,2 (0683, 0684) project requirement.
2. SUPPLY OF CO ANALYSER AS PER SPECIFICATION: CI:0683:CO AND QUALITY PLAN: QA:CI:STD:QP48.
3. Instruction for Indigenous Vendors:
 - a). Offer must be on two part basis and needs to be submitted on FOR/Neyveli 500MW - 1,2 projects Site basis inclusive of packing & forwarding, Separate charges for freight. Insurance Charges shll be BHEL Scope.
 - b). Charges for freight should be indicated clearly and separately in the offer and Annexure -D compulsorily without fail.
Part 1 consists of technical Bid and Part 2 is Price Bid in separate sealed covers. Both sealed covers shall then be put in a third sealed cover. Our Enquiry No, Enquiry date, Enquiry due date must be written on all three covers. (Refer Annexure - C)
 - c). Indicate clearly all the taxes & duties applicable with exact Percentage.
 - d). Excise Duty exemption is applicable for this project.

The offers should reach us 30 minutes before the time of opening of tenders.
The offers will be opened at 14.30 hrs on the due date of tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening. Late and delayed offers are liable to be rejected.

Yours faithfully,
For BHARAT HEAVY ELECTRICALS LIMITED

h. Murugesan
MANAGER / PURCHASE
G. MURUGESAN
Engineer
(FOSSIL BOILERS)

Materials Management / BOI
BHEL, TRICHY - 620 014.



429-002/A

BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)
HIGH PRESSURE BOILER PLANT
PURCHASE DEPARTMENT - FOSSIL BOILERS
THIRUCHIRAPALLI - 620014
TAMILNADU (INDIA)

Page:2/6

1701701162 / 31.05.2017

23505

4. Instruction for Foreign Vendors:

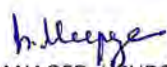
- a). Offer must be on two part basis for FOB/nearest gateway airport basis inclusive of packing & forwarding. (Schedule - F is attached for gateway airport details)
- b) Materials are to be despatched to Manager/Matl.services, ROD/BHEL, 165, Thambu Chetty Street, Chennai-600001, Tamilnadu, India.
- c). It is mandatory to indicate the import portion weight in Kgs for actual material weight and material weight along with packing in your offer. Part 1 consists of technical Bid and Part 2 is Price Bid in separate sealed covers. Both sealed covers shall then be put in a third sealed cover. Our Enquiry No, Enquiry date, Enquiry due date must be written on all three covers. (Refer Annexure - C)
- d). Indicate clearly all the applicable extra Charges such as FOB, P & F, Inspection etc. with exact percentage.

5. Common points for all Vendors:

- a). Quote should confirm our specifications, enclosed commercial terms & conditions along with MSE clause, Loading Criteria (Annexure-B). Point wise confirmation are to be submitted along with your quote duly signed, stamped to enable BHEL to ensure technical suitability. Any deviation should be specified without fail clearly in the no deviation format and the failure to comply with the same may make your quotation liable for rejection.
- b). In addition prices for complete erection & Commissioning of Online Carbon in Ash Analyser system at site including necessary Manpower and Material at site shall be mentioned separately and clearly in the offer.
- c). Suitable Erection support materials to be supplied by vendor.
- d). The enquiry deviation form shall be submitted after filling up all the references and deviations if any duly signed and stamped.
- e). The BHEL standard enquiry terms and conditions (Annexure - B & Annexure - D) shall be duly filled, signed & stamped and sent along with the offer.
- f). Entire project requirement will be considered as a single package for evaluation purpose and L1 finalization. L1 finalization will be done based on total cost BHEL basis and it includes the supervision of erection and commissioning

The offers should reach us 30 minutes before the time of opening of tenders. The offers will be opened at 14.30 hrs on the due date of tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening. Late and delayed offers are liable to be rejected.

Yours faithfully,
For BHARAT HEAVY ELECTRICALS LIMITED


MANAGER / PURCHASE
G. MURUGESAN
Engineer

Materials Management / BOI
BHEL, TRICHY - 620 014.



429-002/A

BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)
 HIGH PRESSURE BOILER PLANT
 PURCHASE DEPARTMENT - FOSSIL BOILERS
 THIRUCHIRAPALLI - 620014
 TAMILNADU (INDIA)

Page:3/6

1701701162 / 31.05.2017

23505

charges, Commissioning spares and Training Charges.

g). Inspection shall be carried out by respective BHEL approved third party inspection agency for indigenous vendors and the customer itself as per applicability. Foreign vendors need to submit all the necessary test certificates to obtain BHEL clearance before dispatch.

h) Applicable Testing and Certification charges if any shall be indicated clearly and separately in the quotation. Taxes/duties applicable on the Testing and certification charges should be clearly indicated in the quotation. If the same is found to be missing then it would be taken as inclusive in the quoted amount.

i). Two sets of O & M Manual consisting of approved drawings in PDF format (soft copy) in CDs are to be submitted to the buyer along with dispatch documents if order placed. No hard copy is warranted. Please note.

j). The delivery dates indicated above are tentative and the exact delivery date will be indicated in the purchase order.

k). In addition to technical and commercial conditions, vendors should note and follow the following conditions (01 to 04).

Condition - 1 for BHEL PMD vendors who are approved under cat-2 vendors by customer:

Vendor shall get qualified into "cat-1" from "Cat-2", based on the documents submitted by the vendor before price bid opening. If customer regrets to change the category of approval from "cat-2" to "cat-1", the offer submitted by the vendor shall not be considered further for this tender and hence their offer is liable for rejection.

Condition - 2 for BHEL PMD vendors who are not approved by customer:

Vendor shall get approved by customer before price bid opening. If customer regrets to approve before price bid opening of this tender, the offer submitted by the vendor shall not be considered further for this tender and hence their offer is liable for rejection.

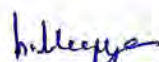
Condition - 3 for customer approved vendors who are not in BHEL PMD:

Vendor shall submit the filled in "Supplier Registration Forms" (available in www.bhel.com) along with their offer.

Techno-commercial bid will be opened on the due date as indicated in enquiry. Vendor's offer will only be considered, provided they are

The offers should reach us 30 minutes before the time of opening of tenders. The offers will be opened at 14.30 hrs on the due date of tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening. Late and delayed offers are liable to be rejected.

Yours faithfully,
 For BHARAT HEAVY ELECTRICALS LIMITED


G. MURUGESAN
 (FOSSIL BOILERS)
 Engineer
 Materials Management / BOI
 BHEL, TRICHY - 620 014.



429-002/A

BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)
 HIGH PRESSURE BOILER PLANT
 PURCHASE DEPARTMENT - FOSSIL BOILERS
 THIRUCHIRAPALLI - 620014
 TAMILNADU (INDIA)

Page:4/6

1701701162 / 31.05.2017

23505

registered with permanent code in line with the provisions of SEARP (Supplier Evaluation Approval & Review Procedure), vide ref. AA: SSP:SR:01, Rev.02 dt. 26.09.2016, before price bid opening (as per PP clause no 5.2.1). If vendor is not fulfilling the above criteria, offer will be rejected.

Condition - 4 for New Vendors:

If new vendor is responding to this open tender who is not approved in BHEL PMD as well as not approved by customer, should get qualified by both BHEL as well as customer before price bid opening. If vendor is not fulfilling the above criteria, offer will be rejected.

l). Important note for MSE clause:

All vendors are requested to note the Annexure X -Special clauses for Micro and Small Enterprises (MSE) suppliers.

If L1 vendor is an MSE vendor entire project package will be ordered on L1 vendor. If a Non MSE vendor is coming as L1, then L1 prices will be counteroffered on MSE vendor who is quoting price within the price band L1+15% and if they are agreeing purchase order will be awarded for full/complete supply of total tendered value to MSE. If more than one MSE vendors are available in the L1+15% price band then lowest of the MSE vendor will be selected for counteroffering. If lowest MSE vendor is not accepting it will be counteroffered to the next MSE vendor in the price band and so on. Finally if any of the MSE vendor in the price band is not accepting it will be ordered on L1 non MSE vendor. MSE suppliers can avail the intended benefits only if they submit along with the offer, attested copies of documents as mentioned in the Annexure X. Since the complete enquiry requirement is being considered as a single package for tender evaluation purpose, therefore, MSE clause will not be applicable to those indigenous vendors who are quoting only for a part of the enquiry in partnership with a foreign vendor. MSE clause can be used only by an indigenous vendor who is quoting for the full enquiry requirement on its own. All the MSE related current and valid documents must be provided along with the offer without fail.

m). This tender has been published on BHEL & NIC website http://www.bhel.com/tender/tender_home.php & <http://tenders.gov.in> and also in leading national dailies (All editions of Financial Express and Business Standard (English & Hindi)) with ref no NIT_xxxxx. All corrigendum will be published on BHEL & NIC websites only, vendors are requested to visit these websites regularly.

n). No representative is allowed to attend tender opening without authorisation letter from competent authority of the firm.

The offers should reach us 30 minutes before the time of opening of tenders. The offers will be opened at 14.30 hrs on the due date of tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening. Late and delayed offers are liable to be rejected.

Yours faithfully,
 For BHARAT HEAVY ELECTRICALS LIMITED

h. Deepa
G. MURUGESAN
 (FOSSIL BOILERS)
 Engineer
 Yours faithfully,
Materials Management / BOI
BHEL, TRICHY - 620 014.



429-002/A

BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)
 HIGH PRESSURE BOILER PLANT
 PURCHASE DEPARTMENT - FOSSIL BOILERS
 THIRUCHIRAPALLI - 620014
 TAMILNADU (INDIA)

Page:5/6

1701701162 / 31.05.2017

23505

o). VENDOR SHALL SUBMIT UNPRICED BID FORMAT (ANNEXURE - D) ALONG WITH TECHNO-COMMERCIAL OFFER with duly signed, stamped. IF NOT, THEIR OFFER IS LIABLE FOR REJECTION. Also the filled Annexure - D shall be attached with PRICE BID with duly signed and stamped.

p). If there is any clarifications, you are requested to contact: Sri. G. Murugesan, Engineer/MM/BOI, BHEL, Trichy-620014. Ph.:+91 431 2577072; e-mail: qmuru@bheltry.co.in

Enclosures:

- 1) SPECIFICATION: CI:0683:CO
- 2) QUALITY PLAN: QA:CI:STD:QP48.
- 3) Annexure - B for indigenous vendor (Commercial terms and conditions along with MSE clause & Loading Criteria).
- 4) Annexure - B for import vendor (Commercial terms and conditions along with MSE clause & Loading Criteria).
- 5) Annexure - X for MSE clause.
- 6) Annexure - C for Special Terms & Condition.
- 7) No deviation form (Enquiry deviation).
- 8) Schedule F for details of Gateway Airport.
- 9) ANNEXURE - D, UNPRICED & PRICED BID FORMAT FOR INDIGENOUS AND IMPORT VENDORS.

"LD clause has to be confirmed without fail."

The bidder along with its associate / collaborators / sub-contractors / sub-vendors / consultants /service providers shall strictly adhere to BHEL fraud prevention policy displayed on BHEL website <http://www.bhel.com> and shall immediately bring to the notice of BHEL Management about any fraud or suspected fraud as soon as it comes to their notice.

PR Links

Material.	PR.No	PR.Item.	Quantity	Acc. Assign	Customer Number
-----------	-------	----------	----------	-------------	-----------------

The offers should reach us 30 minutes before the time of opening of tenders. The offers will be opened at 14.30 hrs on the due date of tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening. Late and delayed offers are liable to be rejected.

Yours faithfully,
 For BHARAT HEAVY ELECTRICALS LIMITED

G. Murugesan
G. MURUGESAN
 (FOSSIL BOILERS)
 Engineer
 Materials Management / BOI
 BHEL, TRICHY - 620 014.



429-002/A

BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)
HIGH PRESSURE BOILER PLANT
PURCHASE DEPARTMENT - FOSSIL BOILERS
THIRUCHIRAPALLI - 620014
TAMILNADU (INDIA)

Page:6/6

1701701162 / 31.05.2017

23505

Material.	PR.No	PR.Item.	Quantity	Acc. Assign	Customer Number
L068319708402001	113872773	00010	2.000	U5/0683-SY-585-1-97-084	U5/0683
L068319708402001	113872774	00010	2.000	U5/0684-SY-585-1-97-084	U5/0684

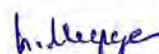
list of suppliers

RFQ-5900000108

Open Tender Dummy Code

The offers should reach us 30 minutes before the time of opening of tenders.
The offers will be opened at 14.30 hrs on the due date of tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening. Late and delayed offers are liable to be rejected.

Yours faithfully,
For **BHARAT HEAVY ELECTRICALS LIMITED**


G. MURUGESAN
MANAGER, PURCHASE
(FOSSIL BOILERS)
Materials Management / BOI
BHEL, TRICHY - 620 014,

Bharat Heavy Electricals Limited

HIGH PRESSURE BOILER PLANT , TIRUCHIRAPPALLI 620 014.

CONTROLS AND INSTRUMENTATION / FB

SPECIFICATION FOR FLUE GAS ANALYSER (CO ANALYSER)

NEYVELI NEW THERMAL POWER PROJECT (NNTPP),
2X500MW LIGNITE FIRED UNITS, CUST. NO. 0683-0684

Doc Ref: CI:0683:CO / REV.00

Rev. No.	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED
00	27/10/2015	Initial Release	<i>B. Rajan</i>	<i>P. S. S.</i>	<i>A. S. S.</i>

1) Objective

Technical specification for CO Analyzer.

2) Scope of Application

This specification is applicable for flue gas analysis measurements in the boiler area. The instrument is used for measuring the CO content in the flue gas ducts. The analyser shall be accurate, reliable and give trouble-free operation in corrosive, dusty and moisture laden conditions.

3) SITE CONDITION

a) Location	:	Neyveli, Tamilnadu, India
b) Type of Boiler	:	Tower type, Once through Subcritical, Lignite fired boiler, Tangential fired
c) Elevation above sea level	:	67 m
d) Latitude	:	11° 34' 00" N to 11° 35' 00" N
e) Longitude	:	79° 26' 00" N to 79° 27' 00" E
f) Maximum ambient temperature	:	42.8 deg C
g) Minimum ambient temperature	:	26.9 deg C
h) Max relative humidity	:	92% in the month September
i) Minimum relative humidity	:	23% in the month May
j) Rainfall	:	1265.7 mm annually (average)
k) Wind direction	:	South West to North East direction
l) Wind speed	:	97.2 km/hr (maximum recorded) 4.3 km/hr (average)
m) Seismicity	:	As per IS 1893 (part 4) Zone II Importance factor 1:75
n) Wet bulb temp	:	29 deg C

4) Scope of supply

The scope of supply includes the following:

- a) The sensors and transmitters are in the scope of supply of the component supplier.
- b) The mechanical measuring element, suitable for installation on tapping points / flanges
- c) The transmitter covered in an enclosure with local LCD indication in case of analogue measurements.
- d) The compression fittings, sealing gaskets and auxiliary mounting accessories.
- e) Vendor shall supply suitable mating & blanking flange (both flange and counter-flange)
- f) Tag number (KKS) labelling plates.
- g) Cable Glands suitable for the application
- h) Each sensor shall provide two passive analogue output signals 4- 20 mA, one of them HART compatible.
- i) Commissioning of the system shall be in vendor scope.

5) Other Requirements

- The transmitters shall be 2-wires, 24 V DC.
- The analogue output shall be potential free 4 – 20 mA. The burden shall be up to 750 Ohm. The error signalling shall be < 3 mA at sensor cable break and >22 mA at short circuit.
- The transmitters shall be provided with screw terminals suitable for connecting 1.5mm² and less diameter cables.

- All the sensors shall meet relevant IS standards. All the sensors shall have a MTBF of > 10 years.
- The electronic unit shall be integrated with necessary accessories & mounted inside Field Control box and kept a distance of 20 meter (Maximum). No head mounted components are recommended. All Field mounted units shall meet IP65 Degree of protection clause.
- The scope of supply shall include all the accessories like interconnecting power / signal cable, interconnecting air tubes, connectors, hose, Junction / relay box, weather hood etc., which make the system complete.
- Vendor shall provide proper fuses, MCBs, etc. for distribution of power supply throughout the system. All the system components shall be properly earthed. BHEL shall provide only one 240V AC, 1ph supply per analyser.
- All the sensors and equipment's shall be properly identified with tag number, identification code and the text description.
- The field mounted Exterior & Interior colour of cabinets shall be decided during detailed engineering after PO.
- Vendor to note that any consumable shall be sent only at the time of commissioning.
- The design data (for fuel and gas) is provided in Annexure-2 for the information of vendor. Any other data required for the satisfactory operation of the analyser shall be considered by the vendor in their design. The responsibility of satisfactory performance of the system lies with the vendor.

5.2) Specification for CO Analyzer

- a) Type: In-situ type
- b) Principle: IR Double beam absorption
- c) Sensor Type: Type IR
- d) Measurement Range: 0-999 ppm selectable
- e) Accuracy: +/- 0.2 % of full scale
- f) Linearity: +/- 1% of full scale
- g) Response time: 3 seconds or less (Up to 90% of full scale)
- h) Drift: +/- 0.005% per 2 Deg. Centigrade temp. change
- i) Operating Temperature Range: 0-1600 deg C
- j) Temperature compensation: Automatic
- k) Sample filter: Ceramic 3.5 micron
- l) Zero & Span Adjustment: Required
- m) Ambient Temperature: 60 deg C
- n) Indication: Digital
- o) Enclosure: Type/Material : Weather & Dust proof IP-65/ SS 316
- p) Type of Electronics: Microprocessor based with self diagnostic facility
- q) Calibration: Auto & manual
- r) Output signals Analog: 4-20 mA DC Binary: 2 NO + 2 NC for Alarms
- s) Digital Signal transmission RS-232 or RS-485 OR as per requirement to suit connection protocol of Plant DCS
- t) Other requirement
HART Communication protocol compatibility & suitable for connection to Smart Transmitter
Maintenance system. Purging System

5.3) Details of CO Analyzer:

- | | |
|--------------------------|-------------------------------|
| a) Quantity | : 2 Nos. |
| b) Location | : ESP INLET (RAPH OUTLET) |
| c) TAG No | : 01HNA11CQ002 & 01HNA21CQ002 |
| d) Operating Temperature | : 192° C |
| e) Max. Temperature | : 300° C |
| f) Operating Pressure | : -0.041 kg/Sq.cm |

- g) Max. Pressure : 0.051 kg/Sq.cm
- h) Range of Primary Instrument : 0-21 Vol. %
- i) Tapping Point details : Drg. No. 4-97-288-93767/00. (Attached in Annexure-1).

6) GUARANTEE

The equipment contractor shall guarantee that the materials, workmanship and performance of the apparatus supplied under this specification are perfect in every respect and that shall make good of any defects which may develop within 18 months from the date of supply or 12 months from the date of commissioning whichever is later.

7) QUALITY ASSURANCE, TESTING & INSPECTION

Standard quality plan for Analysers (CO) - QA:CI:STD QP: 48/ Rev.02 shall be followed for meeting the quality requirements.

8) PACKING AND STORAGE

Packing and storage at site shall be done as per vendor standard. However the following points to be taken care by the vendor.

At the time of shipment equipment shall be clean inside and outside. The vendor shall pack all equipment and materials furnished by him in such a manner as to ensure protection against damage and deterioration during shipment and storage which includes local transportation and site storage. Modules, or electronic equipment shall be wrapped and sealed in plastic to protect from rain and dust. The plastic wrapping shall include, as required, the use of a desiccant to protect the equipment from excessive moisture. The items shall be treated and packed for long storage under the climatic conditions prevailing at site. Each item part shall clearly be marked or labelled on the outside of the packing in single case.

9) DRAWINGS/DOCUMENTS TO BE SUBMITTED:

10.1 ALONG WITH OFFER:

- a) Detailed description of the analyser model offered with accessories and bill of material.
- b) G.A drawings of CO analyser.
- c) Details regarding type of sensing materials used and their properties.
- d) Any deviation from the enquiry specification shall be indicated explicitly in the "Sub-delivery Enquiry Deviation Format" attached along with the enquiry. No deviations, unless explicitly taken up by vendor in the enquiry stage itself in the said format and accepted by BHEL in writing, shall be considered after firm order. In case no deviations are there, vendor to indicate "No-deviation" in the fully filled up format.

10.2 AFTER PLACEMENT OF ORDER:

Following documents/drawings shall be sent within 15 days from the date of placement of order for approval.

- a) Detailed functional write-up with system specification.
- b) OGA / dimensional details for the analyser.
- c) System interconnection details.
- d) Power and Instrument air requirement.
- e) Power/signal external connection details.

10) O & M MANUALS:

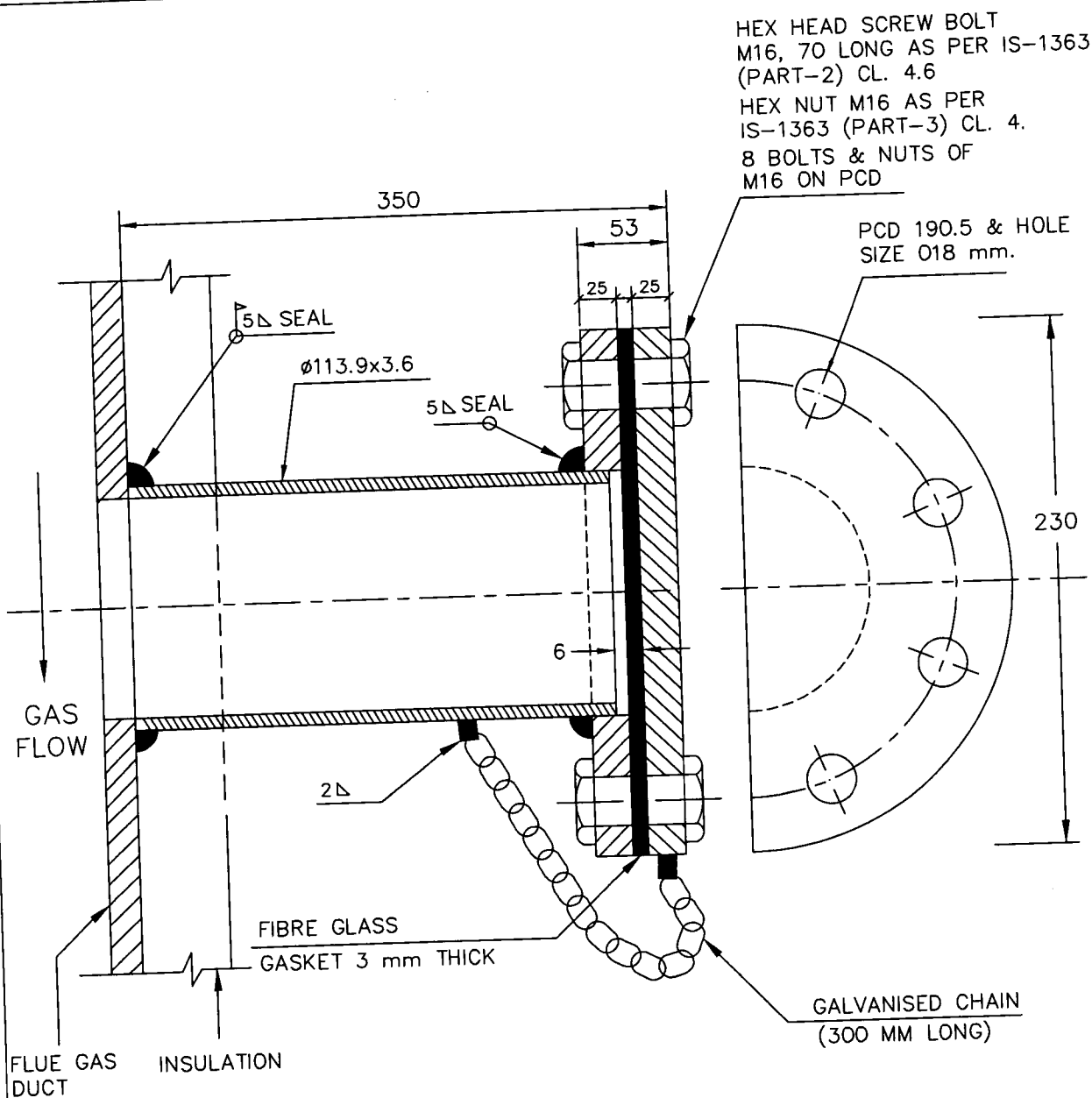
- a) 2 CDs of O&M manual which contains all the relevant information regarding the equipment shall be sent to BHEL (T).

11) Analyser Optional prices:

The following optional prices to be indicated along with offer.

- a) Commissioning spares with bill of materials.
- b) O&M spares.
- c) Lump sum charge for commissioning and for commissioning support.
- d) Training program for BHEL/Customer at vendor's Indian facility and at site.

TITLE :-ANALYTICAL MEASUREMENT IN FLUE GAS DUCT (DIRECT)



NOTE:—

1. FLANGE DIMENSIONS EXCEPT BORE ARE AS PER ANSI-B 16.5, CLASS 150 NPS 4 INCH.
2. TOLERANCE FOR ALL MEASUREMENT: COARSE CLASS AS PER IS 2102.
3. TOLERANCE FOR LIGHT PIPE THICKNESS AS PER IS 1239(PART-I) M.S TUBES.

ALL DIMENSIONS ARE IN MM.

PRPD.	KV	APPD.	TK	DRG. NO.	REV.
CHED.	NGB	DATE		4-97-288-93767	00

ANNEXURE -2

a) FUEL SPECIFICATION

Description	Unit	Design Lignite	Range of lignite	Worst Lignite
Carbon	%	27.54	25-31.5	24
Hydrogen	%	2.50	1.9-2.5	2
Sulphur	%	0.80	0.5-1.2	1.25
Nitrogen	%	0.35	0.15-0.5	0.25
Oxygen (difference)	%	10.81	10.7-13.0	8.5
Moisture	%	53.00	50-56	55
Ash	%	5.00	2-8	9
Ash analysis				
SiO ₂	%	24.8	10.4-38.8	-
Al ₂ O ₃	%	20.16	11.0-27.3	-
Fe ₂ O ₃	%	9.48	2.1-19.8	-
CaO	%	17.45	10.6-25.3	-
MgO	%	5.52	3.7-9.4	-
Na ₂ O	%	0.54	0.09-0.81	-
K ₂ O	%	0.09	0.01-0.18	-
TiO ₂	%	-	-	-
P ₂ O ₅	%	-	-	-
SO ₃	%	22.03	11.7-30.8	-
Base Acid Ratio		0.735	-	-
Fe ₂ O ₃ CaO Ratio		0.543	-	-
Chloride		-	-	-

b) ESP INLET DESIGN DETAILS

Calculation			Unit		Worst Coal max. moisture		Worst Lignite 10% Ash		Worst Lignite max Ash.	
Flue gas analysis at ESP inlet	N2 O2 CO2 H2O SO2	Vol	% dry	% wet	80.22	61.49	80.22	62.37	80.18	62.40
					4.45	3.41	4.48	3.48	5.02	3.90
					15.21	11.66	15.19	11.81	14.69	11.43
					0.00	23.34	0.00	22.25	0.00	22.18
					0.12	0.09	0.12	0.09	0.11	0.09
Ash mass flow at ESP inlet (from fuel)			Kg/s		8.4		14.78		12.41	
Ash mass flow at ESP inlet (from soot blowing)			Kg/s		-		17		-	
Total dust mass flow at ESP inlet			Kg/s		8.04		25.04		14.78	
Dust in waste gas at ESP inlet eff.		wet	g/m³		6.83		21.26		13.04	
Dust in waste gas at ESP inlet N.T.P.		wet	g/Nm³		11.45		35.67		21.77	
Dust in waste gas at ESP inlet N.T.P.		dry	g/Nm³		14.94		46.54		27.99	

BHARAT HEAVY ELECTRICALS LIMITED

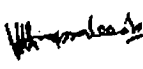
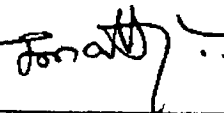
TIRUCHIRAPPALLI

QUALITY ASSURANCE CONTROLS AND INSTRUMENTATION

QA : CI : STD QP : 48/ REV 02

PAGE 01 OF 02

STANDARD QUALITY PLAN FOR ANALYSERS (O₂ & CO)

REV	DATE	PREPARED	REVIEWED	APPROVED	REVISION HISTORY
00	23.08.93	--- Sd ---	--- Sd ---	--- Sd ---	Initial release.
01	16.06.97	--- Sd ---	--- Sd ---	--- Sd ---	Format revised.
02	21.03.02	A.J.OMPRAKASH 	R. VARADARAJAN 	G.MATHIYALAGAN 	Dept. name changed, CTQ requirements added & General revision.

SL. No.	COMPONENT & OPERATION	CHARACTERISTICS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOC. & ACCEPTANCE STD	FORM OF RECORD	AGENCY	REMARKS
	<u>FINISHED</u>	<u>PRODUCT INSPECTION</u>						
<u>A.</u>	<u>ROUTINE TESTS</u>	a. Physical & name plate verification. b. Dimensional check up – including mounting flange. c. i. Calibration test (for oxygen analyser) ii. Calibration test (for CO analyser) <u>common for c (i) & (ii)</u> 1. Repeatability. 2. Accuracy & Linearity. 3. Resolution. 4. Zero drift. 5. Temperature stability. d. Response time test. e. Check for healthiness of probe.	Phys. Meas Mech Mech Mech Mech	100%	Spec, Mfr's std & drgs. - Calibration with a known value shall be used. - Zero calibration shall be done without changing source excess air. Span must be By placing cell done with a known amount of CD in the measuring beam path.	T.C	MQCD	CHP
<u>B</u>	<u>TYPE TESTS</u>	a. Enclosure protection for i. For sensor. ii. Amplifier rack.	ENVI	One for design	IEC 529 & Spec.	T.C	Test lab.	CHP for verification of test certificates.

1 : CRITICAL TO QUALITY (CTQ) POINTS.**C. NOTES:****1) LEGEND**

MQCD : MANUFACTURER'S QUALITY CONTROL DEPARTMENT;
 MEAS : MEASUREMENT; CO : CARBON MONOXIDE;
 MFR'S STD : MANUFACTURER'S STANDARD; STD : STANDARD;
 PHYS : PHYSICAL; T.C : TEST CERTIFICATE;
 SPEC : SPECIFICATION; MECH : MECHANICAL;
 DRGS : DRAWINGS; | : CRITICAL TO QUALITY (CTQ)

POINTS:

CHP : CUSTOMER HOLD POINT - INSPECTION BY BHEL.

- All testing facilities shall be arranged by the vendor at their works. Tests for which facilities are not available & those tests marked test lab in agency column above are to be carried out at recognised national test houses like ETDC/CIL/NPL/ERTL etc at vendor's cost.
- Through logbooks/any other documents available at the vendor's works, it shall be possible to correlate the finished product with raw material and in process stage checks/inspection carried out.

- All measuring and testing instruments shall be periodically calibrated from recognised test houses and certificates made available during inspection.
- Test certificates for routine and type test to be furnished by the vendor. Type test certificates shall not be more than 5 years from the date of enquiry.
- Vendor to give tentative inspection programme in advance and confirm exact date two weeks in advance for arrangement BHEL inspection.
- Packing system: packing shall be as per the 'PACKING PROCEDURE' indicated in the Specification.

D. REFERENCE STANDARDS: (FOR INDICATED STANDARDS REFER THE LATEST VERSION)

IEC 529 : Degrees of protection provided by enclosure.

ANNEXURE-B (For Indigenous vendor)

ACCEPTANCE OF TECHNO - COMMERCIAL TERMS AND CONDITIONS BY THE BIDDERS

Description of the Equipment:		CO Analyser
BHEL Tender No. & Date		
SI No.	Terms and conditions	Vendor's confirmation
1	Technical : This requirement is for Neyveli 500MW – 1, 2 (0683, 0684) project. Supply of CO Analyser as per specification: CI:0683:CO/Rev00 Quality Plan: QA:CI:STD;QP48 Rev 02	
2	Firm Price: The quoted / finalised rates shall be Firm till execution of the supplies. Offer with PVC clause will not be considered.	
3	FOR Basis: The quote shall be on Neyveli 500MW – 1, 2 (0683, 0684) project basis as indicated in enquiry, inclusive of Packing and forwarding charges. Freight charges shall be vendor's scope.	
3 (a)	Freight charges: To be quoted as extra and not inclusive in the basic price (Mandatory to quote the same value in Annexure - D)	
3 (b)	Insurance charges: BHEL Scope (Offer will be loaded 0.1064% of (basic material value + ED + forwarding & packing + freight charge)).	
4 (a)	Payment terms: Option-1: 100% direct payment after 45 days from the date of dispatch against site acknowledgement with 10% PBG. Option 2: 90% direct payment after 45 days from the date of dispatch against submission of dispatch documents and balance 10% against site acknowledgement with 10% PBG.	
4 (b)	1.Loading Criteria for Payment Terms: Any deviation in the above BHEL payment terms as indicated in 4.a will attract loading as per below. "Base rate of SBI (As applicable on the date of bid opening. Techno-commercial bid opening in case of two part bids) + 6% shall be considered for loading for the period of relaxation sought by bidders". 2. For option 4.a- option 2, a loading of 2% on the 90% of the offered value shall be made. 3. Payment through bank is not preferred. In this case, loading will be 3% on the offered value. In case of Direct to site, only 90% through bank will be considered. LC/advance payment will not be operated for Indigenous vendors. Offers with payment terms as LC from indigenous vendors will be rejected.	
5 (a)	Liquidated damages: Delivery of the goods specified in the purchase order should be made within the time prescribed. Failure to dispatch the materials in the time as per the delivery quoted in our Purchase Order would make the supplier liable to an un-conditional LD at the rate of ½% of the total order value per week or part thereof subject to maximum of 10% of the total order value. For staggered delivery schedule, LD shall be 0.5% of the undelivered portion per week of the delay or part thereof, subject to a maximum of 10% of the total order value.	
		Page 01 of 03

5 (b)	Loading Criteria LD / Penalty: Any deviation of the above LD/Penalty clause, loading will be applied to the extent to which it is not agreed by the bidder(at offered value).	
6 (a)	Guarantee / Warranty Period Guarantee clause 18months from the date of supply or 12 months from the date of actual put in use, whichever is earlier.	
6 (b)	Loading Criteria Guarantee / Warranty Period: No Deviation is permitted. If still vendor offered any deviation on the Guarantee / warranty period it may leads to rejection of offer.	
7 (a)	Performance Bank guarantee: 10% of material value as PBG shall be offered.	
7 (b)	Loading Criteria Performance Bank guarantee: No Deviation is permitted and the deviated offers are liable for rejection.	
8	Taxes & Duties: All Taxes, Duties, Service Taxes etc. payable as extra to the quoted price should be specifically stated in offers along with CST & TIN No / Tariff No. etc., failing which the purchaser will not be liable for payment of such Taxes and Duties.	
8 (a)	ED with cess Indicate the applicable %	
8 (b)	CST /VAT Indicate the applicable %	
9	Risk purchase: If the supplier fails to deliver the goods within the delivery specified in the Purchase Order, BHEL will be entitled to terminate the contract and to Purchase elsewhere at the risk and cost of the seller either the whole of the goods or any part which the supplier has failed to deliver or despatch within the delivery period mentioned in the Purchase Order.	
10	DELIVERY PERIOD: Our delivery term shall be 8 weeks from the date of data sheet approval.	
11	Validity: 120 days from Technical Bid opening. Non-compliance of the same will result in offer being liable for rejection	
12	GENERAL CONDITION: Kindly submit the 'no deviation format' with clear indication of data sheet no / specification ref, drawing, and quality plan.	
13	Reverse Auction: Reverse Auction is not applicable for this tender.	
14	BHEL will consider the ranking after the loading is applied as referred above wherever deviations are observed.	
15	DOCUMENT SUBMISSION In case of PO, documents (drawings, data sheets and quality plan in triplicate) shall be submitted within 15 days from the date of receipt of po and the revised documents shall be submitted within 1 week from the date of receipt of engineering / quality comments	
16	QUANTITY OF TENDERED QTY BHEL reserves the right to increase or decrease the tendered quantity	
		Page 02 of 03

17	MSE Clause: All vendors are requested to note the Annexure X –Special clauses for Micro and Small Enterprises (MSE) suppliers. If L1 vendor is an MSE vendor entire project package will be ordered on L1 vendor. If a Non MSE vendor is coming as L1, then L1 prices will be counteroffered on MSE vendor who is quoting price within the price band L1+15% and if they are agreeing purchase order will be awarded for full/complete supply of total tendered value to MSE. If more than one MSE vendors are available in the L1+15% price band then lowest of the MSE vendor will be selected for counteroffering. If lowest MSE vendor is not accepting it will be counteroffered to the next MSE vendor in the price band and so on. Finally if any of the MSE vendor in the price band is not accepting it will be ordered on L1 non MSE vendor. MSE suppliers can avail the intended benefits only if they submit along with the offer, attested copies of documents as mentioned in the Annexure X. Vendor to confirm. The MSE clause will only be applicable to the Indian vendors who are quoting for the complete NIT requirement on their own in INR. Quotations should not be in collaboration with any foreign vendor i.e. part quotation in INR and part quotation in foreign currency if the vendor want to avail MSE clause.	
18	Erection and Commissioning support Charges: Lump sum charges of Erection and Commissioning support with exact Man days for the system with applicable extra Taxes (Service Tax) and Duties etc. in detail should be quoted separately. (Mandatory to quote the same value in Annexure - D) Non-compliance of the same will result in offer being liable for rejection.	
19	Service charges for Erection and Commissioning support Charges: Indicate the applicable service charges in percentage (If applicable)	
20	ANNEXURE – D Vendor shall submit unpriced bid in the Annexure - D along with techno-commercial offer. if not, their offer is liable for rejection. Also the filled Annexure - D shall be attached with PRICE BID with duly signed and stamped.	
21	Neyveli 500MW – 1, 2 (0683, 0684) project projects are coming under ED EXEMPTED project category, hence payment of excise duty is exempted for supplies made to this projects site. If supplies made to BHEL/Trichy stores ED is applicable.	
22	Fraud prevention policy The bidder along with its associate / collaborators / sub-contractors / sub-vendors / consultants / service providers shall strictly adhere to BHEL fraud prevention policy displayed on BHEL website http://www.bhel.com and shall immediately bring to the notice of BHEL management about any fraud or suspected fraud as soon as it comes to their notice.	



An ISO 9001
Company

Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)
Tiruchirappalli-620 014, Tamil Nadu, India
Dept: MATERIALS MANAGEMENT/BOI

ANNEXURE - B (For Foreign vendors)

ACCEPTANCE OF TECHNO - COMMERCIAL TERMS AND CONDITIONS BY THE BIDDERS

Description of the Equipment:		CO Analyser
BHEL Tender No. & Date		
SI N	Terms and conditions	Vendor's confirmation
1	Technical : This requirement is for Neyveli 500MW – 1, 2 (0683, 0684) project. Supply of CO Analyser as per specification: CI:0683:CO Rev00 Quality Plan: QA:CI:STD;QP48 Rev 02	
2	Firm Price: The quoted / finalised rates shall be Firm till execution of the supplies. Offer with PVC clause will not be considered.	
3	The quotes shall be on FOB/Nearest GATE WAY Airport basis. (Schedule – F attached) If vendor passing transit insurance under BHEL scope, Offer will be loaded 0.1064% of (Basic material value + ED + Forwarding & Packing + Freight charge).	
4 (a)	BHEL Payment term is 100% payment on CAD basis after 45 days from the date of receipt of documents, specified in PO, at BHEL bank. Respective bank charges to respective account.	
4 (b)	1.Loading Criteria for Payment Terms: Any deviation in the above payment term will attract loading as mentioned below. "Base rate of SBI (as applicable on the date of bid opening. Techno-commercial bid opening in case of two part bids) + 6% shall be considered for loading for the period of relaxation sought by bidders.	
4 (c)	1. In the case of Usage LCs the loading will be considered @ 1.5% on the offered Value. 2. For LC at sight the loading will be considered @ 3.5% on the offered Value. 3. Normally CAD at sight and Confirmed LCs are liable for rejection.	
5 (a)	Liquidated damages: Delivery of the goods specified in the purchase order should be made within the time prescribed. Failure to dispatch the materials in the time as per the delivery quoted in our Purchase Order would make the supplier liable to an un-conditional LD at the rate of ½% of the total order value per week or part thereof subject ot maximum of 10% of the total order value. For staggered delivery schedule, LD shall be 0.5% of the undelivered portion per week of the delay or part thereof, subject to a maximum of 10% of the total order value.	
		Page 01 of 04

5 (b)	Loading Criteria LD / Penalty: Any deviation of the above LD/Penalty clause, loading will be applied to the extent to which it is not agreed by the bidder (at offered value).	
6 (a)	Guarantee / Warranty Period Guarantee clause 18months from the date of supply or 12 months from the date of actual put in use, whichever is earlier.	
6 (b)	Loading Criteria Guarantee / Warranty Period: No Deviation is permitted. If still vendor offered any deviation on the Guarantee / warranty period it may leads to rejection of offer.	
7(a)	Performance Bank guarantee: 10% of material value as PBG shall be offered.	
7(b)	Loading Criteria Performance Bank guarantee: No Deviation is permitted and the deviated offers are liable for rejection.	
8	Taxes & Duties: All Taxes, Duties, Service Taxes etc. payable as extra to the quoted price should be specifically stated in offers along with CST & TIN No / Tariff No. etc., failing which the purchaser will not be liable for payment of such Taxes and Duties.	
9	Risk purchase: If the supplier fails to deliver the goods within the delivery specified in the Purchase Order, BHEL will be entitled to terminate the contract and to Purchase elsewhere at the risk and cost of the seller either the whole of the goods or any part which the supplier has failed to deliver or despatch within the delivery period mentioned in the Purchase Order.	
10	Delivery Period: Our delivery term shall be 8 weeks from the date of Data Sheet approval.	
11	Validity: 120 days from Technical Bid opening. Non-compliance of the same will result in offer being liable for rejection.	
12	General Condition: Kindly submit the 'No deviation format' with clear indication of Data Sheet No / Specification ref, Drawing, and Quality plan.	
13	Reverse Auction: Reverse Auction is not applicable for this tender.	
14	BHEL will consider the ranking after the loading is applied as referred above wherever deviations are observed.	
15	DOCUMENT SUBMISSION In case of PO, documents (drawings, data sheets and quality plan in triplicate) shall be submitted within 15 days from the date of receipt of po and the revised documents shall be submitted within 1 week from the date of receipt of engineering / quality comments	
		Page 02 of 04

16	QUANTITY OF TENDERED QTY BHEL reserves the right to increase or decrease the tendered quantity	
17	MSE Clause: All vendors are requested to note the Annexure X –Special clauses for Micro and Small Enterprises (MSE) suppliers. If L1 vendor is an MSE vendor entire project package will be ordered on L1 vendor. If a Non MSE vendor is coming as L1, then L1 prices will be counteroffered on MSE vendor who is quoting price within the price band L1+15% and if they are agreeing purchase order will be awarded for full/complete supply of total tendered value to MSE. If more than one MSE vendors are available in the L1+15% price band then lowest of the MSE vendor will be selected for counteroffering. If lowest MSE vendor is not accepting it will be counteroffered to the next MSE vendor in the price band and so on. Finally if any of the MSE vendor in the price band is not accepting it will be ordered on L1 non MSE vendor. MSE suppliers can avail the intended benefits only if they submit along with the offer, attested copies of documents as mentioned in the Annexure X. Vendor to confirm. The MSE clause will only be applicable to the Indian vendors who are quoting for the complete NIT requirement on their own in INR. Quotations should not be in collaboration with any foreign vendor i.e. part quotation in INR and part quotation in foreign currency if the vendor want to avail MSE clause.	
18	Erection and Commissioning support Charges: Lump sum charges of Erection and Commissioning support with exact Man days for the system with applicable extra Taxes and Duties etc. in detail, To & Fro charges, Boarding and Lodging should be quoted separately in ANNEXURE – D Non-compliance of the same will result in offer being liable for rejection..	
19	Weight of the components: a) Component Net Weight b) Component weight with packing	
20	ANNEXURE – D Vendor shall submit unpriced bid in the Annexure - B along with techno-commercial offer. if not, their offer is liable for rejection. Also the filled Annexure - D shall be attached with PRICE BID with duly signed and stamped.	
		Page 03 of 04

21	Fraud prevention policy The bidder along with its associate / collaborators / sub-contractors / sub-vendors / consultants / service providers shall strictly adhere to BHEL fraud prevention policy displayed on BHEL website http://www.bhel.com and shall immediately bring to the notice of BHEL management about any fraud or suspected fraud as soon as it comes to their notice.							
22	COST EVALUATION Evaluation shall be on the basis of delivered cost (i.e. "total cost to BHEL"). For evaluation, the exchange rate (TT selling rate of SBI) shall be taken as under: <table border="1"><tr><td>Single part bids</td><td>Date of tender opening</td></tr><tr><td>Two/three part bids</td><td>Date of Part-I bid opening</td></tr><tr><td>Reverse Auction</td><td>Date of Part-I bid opening</td></tr></table> If the relevant day happens to be a bank holiday, then the forex rate as on the previous bank (SBI) working day shall be taken.	Single part bids	Date of tender opening	Two/three part bids	Date of Part-I bid opening	Reverse Auction	Date of Part-I bid opening	
Single part bids	Date of tender opening							
Two/three part bids	Date of Part-I bid opening							
Reverse Auction	Date of Part-I bid opening							
		Page 04 of 04						

ANNEXURE - D (FOR IMPORT VENDORS)								
PRICE BID FORMAT								
VENDOR SHALL SUBMIT UNPRICED BID IN THIS FORMAT ALONG WITH TECHNO-COMMERCIAL OFFER. ALSO THE FILLED ANNEXURE - B SHALL BE ATTACHED WITH PRICE BID PART WITH DULY SIGNED AND STAMPED. IF NOT, THEIR OFFER IS LIABLE FOR REJECTION								
ENQUIRY NO.: 1701701162				ENQUIRY DATE: 31.05.2017		PROJECT: Neyveli 500MW - 1,2 (0683, 0684)		
ENQ. SL. NO.	MATERIAL CODE	MATERIAL DESCRIPTION	QTY	UNIT	BASIC UNIT PRICE INCLUSIVE OF PACKING & FORWARDING	TOTAL PRICE (UNIT PRICE x QTY.)	OTHER COST IF ANY IN %	
10	L068319708402001	CO Analyser	4	Nos				
OTHER CHARGES		DESCRIPTION	Lumpsum charges for Boiler - (0683) - 02 Nos		Lumpsum charges for Boiler - (0684) - 02 Nos	Total charges for both boilers	Total Man Days required/Boiler	Other charges like Testing etc.
Erection and Commissioning support Charges		Lump sum charges of Erection and Commissioning support with exact Man days for the system with applicable extra Taxes and Duties etc. (Including To & Pro Air charges, Boarding & Loading)						
Weight of the components		Component Net Weight in Kgs.(Approx.)						
		Component weight with packing in Kgs. (Approx.)						
VENDOR NAME		VENDOR WORKS ADDRESS	GATE WAY AIRPORT NAME		SIGN AND SEAL OF AUTHORIZED PERSON			

ANNEXURE - D (FOR INDIGENOUS VENDORS)											
PRICE BID FORMAT											
VENDOR SHALL SUBMIT UNPRICED BID IN THIS FORMAT ALONG WITH TECHNO-COMMERCIAL OFFER. ALSO THE FILLED ANNEXURE - B SHALL BE ATTACHED WITH PRICE BID PART WITH DULY SIGNED AND STAMPED. IF NOT, THEIR OFFER IS LIABLE FOR REJECTION											
ENQUIRY NO.: 1701701162			ENQUIRY DATE: 31.05.2017				PROJECT: Neyveli 500MW - 1,2 (0683, 0684)				
ENQ. SL. NO.	MATERIAL CODE	MATERIAL DESCRIPTION	QTY	UNIT	BASIC UNIT PRICE INCLUSIVE OF PACKING & FORWARDING	TOTAL PRICE (UNIT PRICE x QTY.)	EXCISE DUTY IN %	SALES TAX IN %			OTHER COST IF ANY IN %
								VAT %	CST WITH C FORM %	CST WITHOUT C FORM %	
10	L068319708402001	CO Analyser	4	Nos							
OTHER CHARGES		DESCRIPTION	Lumpsum charges for Boiler - (0683) - 02 Nos		Lumpsum charges for Boiler - (0684) - 02 Nos	Total charges for both boilers	Total Man Days required/Boiler	SERVICE TAX IN %			
Erection and Commissioning support Charges		Lump sum charges of Erection and Commissioning support with exact Man days for the system with applicable extra Taxes (Service Tax) and Duties etc.									
Freight charges in Rs. Up to site		To be quoted as extra and not inclusive in the basic price									
Insurance charges		BHEL Scope	BHEL Scope								
VENDOR NAME:		VENDOR WORKS ADDRESS:					SIGN AND SEAL OF AUTHORIZED PERSON				



Page

OF

DATE _____

NOTE: 1. Deviations should be taken only in the extreme case.
2. If necessary, use additional sheets with page control number.

Details of Gateway Airport with applicable Foreign Currency and Airlines for FSC payment **Schedule F**

Sch. No.	Country	CUR Code	Gateway Airport/s	Airlines with its Code For FSC Payment will be made	
D01	UK	GBP	London (Heathrow)	Air India	AI
D02	UK	GBP	New Castle	British Airways	BA
D03	UK	GBP	Oxford, Chetlam	British Airways	BA
D04	UK	GBP	Bristol, Wellingborough	British Airways	BA
D05	UK	GBP	Birmingham	British Airways	BA
D06	UK	GBP	East Midlands	British Airways	BA
D07	UK	GBP	Manchester	British Airways	BA
D08	UK	GBP	Leeds	British Airways	BA
D09	UK	GBP	Glasgow	British Airways	BA
D10	France	EURO	Paris (Roissy) & Lyon	Air India	AI
D11	Sweden	EURO	Stockholm	Emirates	EK
D12	Sweden	EURO	Gothenberg & Malmö	Emirates	EK
D13	Italy	EURO	Rome, Milan	Carrier Used	Carrier Used
D14	Italy	EURO	Turin, Bologna, Florence	Carrier Used	Carrier Used
D15	Netherlands	EURO	Amsterdam, Rotterdam	Klm Airlines	KLM
D16	Austria	EURO	Vienna, Linz, Graz	Lufthansa	LH
D17	Belgium	EURO	Antwerp, Brussels	Singapore Airlines	SQ
D18	Denmark	DKK	Copenhagen	Cathay Pacific	CX
D19	Japan	JPY	Tokyo, Osaka	Air India	AI
D20	Singapore	SGD	Singapore	Air India	AI
D21	Canada	CAD	Toronto	Carrier Used	Carrier Used
D22	Canada	CAD	Montreal	Carrier Used	Carrier Used
D23	USA	USD	New York, Boston	Air India	AI
D24	USA	USD	Chicago	Carrier Used	Carrier Used
D25	USA	USD	San Francisco, Los Angeles	Carrier Used	Carrier Used
D26	USA	USD	Atlanta, Houston	Carrier Used	Carrier Used
D27	Germany	EURO	Munich, Köln, Düsseldorf, Hannover, Hamburg, Stuttgart, Darmstadt, Manheim, Nuremberg	Lufthansa	LH
D28	Germany	EURO	Frankfurt	Lufthansa	LH
D29	Germany	EURO	Berlin	Lufthansa	LH
D30	Switzerland	SFR	Basle, Zurich, Geneva	Swiss World Cargo	LX
D31	Spain	EURO	Barcelona	Emirates	EK
D32	Australia	AUD	Sydney	Qantas Airlines	QF
D33	Australia	AUD	Melbourne	Qantas Airlines	QF
D34	Australia	AUD	Perth	Qantas Airlines	QF
D35	Czech	EURO	Prague	Lufthansa	LH
D36	Hong Kong	HKD	Hong Kong	Air India	AI
D37	New Zealand	NZD	Auckland	Carrier Used	Carrier Used
D38	Russia	USD	Moscow	Carrier Used	Carrier Used
D39	South Korea	USD	Kimpo International, Incheon	Air India	AI
D40	Finland	EURO	Helsinki	Finnair Cargo	AY
D41	Romania	EURO	Bucharest	Carrier Used	Carrier Used
D42	Norway	EURO	Oslo	Carrier Used	Carrier Used
D43	Ireland	EURO	Dublin	Carrier Used	Carrier Used
D44	Israel	USD	Tel Aviv	El Al Israel	LY
D45	UAE	USD	Dubai	Air India	AI
D46	Oman	USD	Muscat	Air India	AI
D47	Egypt	USD	Cairo	Carrier Used	Carrier Used
D48	Taiwan	USD	Taipei	Carrier Used	Carrier Used
D49	Ukraine	USD	Kiev	Lufthansa	Carrier Used
D50	China	USD	Shanghai, Shenzhen	Carrier Used	Carrier Used
D51	Philippines	USD	Manila	Carrier Used	Carrier Used
D52	Malaysia	USD	Kuala Lumpur, Pe Nang	Malaysia Airlines	Carrier Used
D53	Cyprus	USD	Larnaca	Carrier Used	Carrier Used
D54	South Africa	USD	Johannesburg, Durban	Carrier Used	Carrier Used
D55	Slovakia	EURO	Bartislava	Lufthansa	LH
D56	Saudi Arabia	SAR	Riyadh	Saudi Arabia Airlines	SV
D57	Turkey	EURO	Istanbul	Turkish Airlines	TK
D58	Thailand	USD	Bangkok	Thai Airways	TG
D59	Brazil	USD	Sao Paulo, Rio De Janeiro	Emirates	EK

ANNEXURE X
Micro Small and Medium Enterprises (MSE) – Clause for NIT

In line with Gazette notification issued by Ministry of Micro Small and medium enterprises on MSE suppliers, the following special provisions shall be applicable.

20% of the tendered quantity is earmarked for MSE suppliers in this tender.

Out of the 20% tendered quantity reserved for MSE suppliers, 4% shall be earmarked for procurement from MSE owned by SC / ST entrepreneurs.

In case MSE vendor participating in the tender quotes within the price band of LI + 15%, they will be allowed to supply the portion of the requirement subject to acceptance of LI price by MSE vendor. In case of more than one such MSE, the supply shall be shared proportionately.

In case of tender items is not-splitable or non-dividable etc., MSE quoting price within the price band LI+15% may be awarded for full/complete supply of total tendered value to MSE

MSE suppliers can avail the intended benefits only if they submit along with the offer, attested copies of either

1. EM II certificate having deemed validity (two years from the date of issue of acknowledgement in EM II) **or**
2. Valid NSIC certificate or EM II certificate along with CA certificate (Format enclosed) applicable for the year, certifying quantum of investment in plant and machinery within the permissible limits as per the act for relevant status (MICRO or SMALL) where the deemed validity of EM II is over.

Date to be reckoned for determining the deemed validity will be the last date of technical bid submission (Part 1 in case of two part bid).

Non submission of such documents will lead to consideration of their bid at par with other bidders and MSE status of such suppliers shall be shifted to NON MSE suppliers till the supplier submit this documents.

Documents should be notarized or attested by a Gazetted officer.

Definitions of MSEs owned by SC/ST is under:

- **In case of proprietorship firm, proprietor must be SC/ST.**
- **In case of partnership firm, the SC/ST partners must be holding at least 51% shares in the unit.**
- **In case of private limited companies, at least 51% share must be held by SC/ST promoters.**

Authorised Offices to Issue SC/ST certificate.

The caste/Tribe/Community certificate issued by the following authorities in the prescribed form for SCs/STs can be considered.

- District Magistrate/Additional District Magistrate/Collector/Deputy commissioner/Additional Deputy commissioner/Deputy collector/1st class stipendary magistrate/Sub divisional Magistrate/Taulka Magistrate/Executive magistrate/Extra Assistant commissioner.
- Chief Presidency magistrate/Additional chief presidency magistrate/Presidency magistrate.
- Revenue Officer not below the rank of thasildar.
- Sub-Divisional officer of the area where the individual and / or his family normally resides.

To avail the benefits of MSE under SC/ST category, the related documents as stated above should be submitted along with tender documents.

Annexure – C
MM/BOI/BHEL TRICHY
SPECIAL TERMS AND CONDITIONS

1. This tender is for the supply of **CO Analyser** as per specs, size and quantities mentioned in the attached enquiry.
2. The vendor shall have adequate experience in manufacturing and supply similar type of equipment.
3. The tender is in two parts as follows:

A) Part – I Techno-commercial bid:

Techno commercial bid will be consisting technical offer with complete set of supporting documents and commercial bid without indicating the price.

Offers found suitable on technical and commercial grounds only, will be considered for further processing.

B) Part - II – Price Bid:

It will be consisting of price details:

All two bids are to be submitted in separate sealed covers, duly indicating the type of bid and enquiry number in each cover. These two envelopes will be sent in single cover duly super scribing the Enquiry Number.

In addition to the above mentioned two parts bid, vendors who are not registered vendor of BHEL-Trichy has to submit the filled in “Supplier Registration Forms” (available at www.bheltry.co.in - Online Supplier Registration – Material Management or <http://vis.bheltry.co.in/olsa/>) before Price –Bid opening. Price bid of such vendors will be opened only after the receipt of all documents and registration with BHEL-Trichy.

Part – I: Techno-commercial bid will be opened on due date:

The techno-commercial bids will be opened on a suitable date with due intimation. Based on the acceptance of techno-commercial bid and vendor evaluation, the price bid of the qualified vendors will be opened on a suitable date with due intimation.

4. Following will be the criteria for vendors to qualify:

- a. Vendor should have been approved by BHEL Trichy for this items under Permanent category and should have been approved by customer.
- b. Vendor should submit the following documents for considering them as an approved vendor:
 - i. Duly filled-in Supplier Registration Forms.
 - ii. Availability of minimum manufacturing, handling, testing and measuring facilities as detailed in the Supplier Registration Form.
 - iii. BHEL will have the right for spot assessment of the facilities for assessment.
 - iv. Qualifying to our techno commercial requirements of the Enquiry.

Supplier Registration Form (SRF) has to be duly filled up online and send one copy with all the documents as mentioned in SRF & if vendors have already submitted SRF & hard copy is sent to BHEL, can mention SRF Number (Application Number).

Annexure – C
MM/BOI/BHEL TRICHY
SPECIAL TERMS AND CONDITIONS

URL for online Registration form is as below

<http://vis.bheltry.co.in/olsa/>

For any help regarding filling of SRF, you may contact following

Mrs. Nalini Subramanian (Purchase Officer- Supplier Development Cell)

Ph:0431/2577301

Email ID: nalini@bheltry.co.in

Mr. Ebinesan (Sr. Manager- Supplier Development Cell)

Ph:0431/2577448

Email ID: ebi@bheltry.co.in

Systems / BHEL /TRICHY

Ph:System SDC:0431/2577121,lip@bheltry.co.in

Ph:System ERP:0431/2577522,erpsubcon@bheltry.co.in

For any queries regarding tender you may contact

1) Mr. G. MURUGESAN,

Engineer/MM/BOI

BHEL Trichy

0431-2577072

gmuru@bheltry.co.in

2) Mrs.P.L. Pramila

DGM/MM/BOI

BHEL Trichy

0431-2574737

pramila@bheltry.co.in

5. BHEL reserves the right to increase or decrease the tendered quantity and split the tendered quantity among more than one tenderer and place orders accordingly in any proportion based on commitment, requirement and supplier's capability in terms of delivery and quality as assessed by BHEL.

6. BHEL reserves the right to negotiate the L1 rate.

7. BHEL reserves the right to re-float the tender opened, if L1 price is not the lowest acceptable price to BHEL inter-alia other reasons.

8. BHEL reserves the right to order on more than one vendor at the lowest acceptable price to BHEL.

9. Vendors have to confirm to the Commercial Terms and Special Terms & Conditions attached.

10. BHEL standard LD condition is $\frac{1}{2}\%$ of the total order value per week or part thereof subject to maximum of 10% of the total order value

12. Please indicate the exact location of WORKS / FACTORY.

Annexure – C
MM/BOI/BHEL TRICHY
SPECIAL TERMS AND CONDITIONS

13. The vendor who are not registered in BHEL PMD as permanent vendors must ensure that they complete the supplier registration formalities and get registered with BHEL Trichy as permanent PMD vendors before the price bid opening is done. The offers of the vendors who fail to do so will be liable for rejection.

14. Vendor who are approved category – 2 with this Neyveli customer already, they shall get qualified into "cat-1" from "Cat-2", based on the documents submitted by the vendor before price bid opening. If customer regrets to change the category of approval from "cat-2" to "cat-1", the offer submitted by the vendor shall not be considered further for this tender and hence their offer is liable for rejection.

15. Vendor who are not approved by Neyveli customer already, they shall get approved by customer before price bid opening. If customer regrets to approve before price bid opening of this tender, the offer submitted by the vendor shall not be considered further for this tender and hence their offer is liable for rejection.

16. If new vendor is responding to this open tender who is not approved in BHEL PMD as well as not approved by customer, should get qualified by both BHEL as well as customer before price bid opening. If vendor is not fulfilling the above criteria, offer will be rejected.

17. Vendor shall submit the filled in "Supplier Registration Forms" (available in www.bhel.com) along with their offer as mentioned in point No 04 this annexure - C.

18. Techno-commercial bid will be opened on the due date as indicated in enquiry. Vendor's offer will only be considered, provided they are registered with permanent code in line with the provisions of SEARP (Supplier Evaluation Approval & Review Procedure), vide ref. AA: SSP:SR:01, Rev.02 dt. 26.09.2016 and shall be approved by customer, before price bid opening (as per PP clause no 5.2.1). If vendor is not fulfilling the above criteria, offer will be rejected.