



भारत हेवी इलेक्ट्रिकल्स लिमिटेड

( भारत सरकार का उपक्रम )

**BHARAT HEAVY ELECTRICALS LIMITED**

(A Govt. of India Undertaking)

**TCN - 02**

Ref: PSER:SCT:BRM-M1404:TCN-02

Date: 27-11-2012

Sub	Tender Change Notice (TCN) - 02.	
Job	Design, Engineering, Manufacturing, Supply/Delivery, Erection, Commissioning, Trial Run, Handing Over to Customer etc of water treatment plant packages excluding civil construction work for 2X 250 MW Barauni Extension Project at Begusarai, Bihar.	
Ref	1.0	Tender no PSER:SCT: BRM-M1404:12
	2.0	BHEL's NIT, vide reference no PSER: SCT: BRM-M1404:3016 Date: 31-10-2012
	3.0	BHEL's TCN-01, vide reference no PSER:SCT: BRM-M1404:TCN-01 Date: 20-11-2012
	4.0	Other References,if any.

With reference to above, following points, relevant to tender, may please be noted and complied with while submitting the offer.

1. Clarification is attached vide Annexure-A to TCN-02.
2. Revised 'No deviation certificate' is attached. Bidder to submit 'No deviation certificate' as per attached format only.
3. All other terms & conditions shall remain unchanged.

Thanking you,

Yours faithfully,  
for BHARAT HEAVY ELECTRICALS LTD

Engineer (SCT)

Encl:

- 1.0 Clarification
- 2.0 Revised Format of 'No deviation certificate'.

पावर सेक्टर पूर्वी क्षेत्र ( मुख्यालय )

POWER SECTOR EASTERN REGION, DJ-9/1, SALT LAKE CITY, KOLKATA - 700 091

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**DESIGN, ENGINEERING, MANUFACTURING, SUPPLY/DELIVERY, ERECTION, COMMISSIONING, TRIAL RUN, HANDING OVER TO CUSTOMER ETC OF WATER TREATMENT PLANT PACKAGES EXCLUDING CIVIL CONSTRUCTION WORK FOR 2X 250 MW BARAUNI EXTENSION PROJECT AT BEGUSARAI, BIHAR.**

**TENDER NO PSER:SCT: BRM-M1404:12**

**CLARIFICATIONS**

<b>SL. NO.</b>	<b>REFERENCE CLAUSE OF TENDER</b>	<b>EXISTING PROVISION</b>	<b>BIDDER'S QUERY</b>	<b>BHEL'S CLARIFICATION</b>
<b>1</b>	Clause No 11.2.2 of Volume-IA -Page 4 of 22	To split up the work amongst two or more tenderers	The split of work amongst bidder is for whole package or indivisal items in the packages like DM, PT, ETP, STP or Cooling water system. Please clarify.	As per note-2 of sch-1 of Volume-III "Bidder to furnish break-up of total price (1.0 above of this SCH-1) into other schedules in the following manner. While, evaluation will be done on 1.0 above, separate orders will be placed by BHEL based on subsequent break-up of prices. " The contract to be awarded shall be on the basis of supply and service contract on single source responsibility.
<b>2</b>	Clause No 11.2.3 of Volume-IA -Page 4 of 22	To award the work in part.	The award of work in part is form of packages or items. Clarify	As per note-2 of sch-1 of Volume-III "Bidder to furnish break-up of total price (1.0 above of this SCH-1) into other schedules in the following manner. While, evaluation will be done on 1.0 above, separate orders will be placed by BHEL based on subsequent break-up of prices. " The contract to be awarded shall be on the basis of supply and service contract on single source responsibility.
<b>3</b>	Clause No 6.1 of Volume-IA -Page 10 of 22	The price shall remain firm, for any increase or decrease in order value upto +/- 30% BHEL shall have the right to increase / decrease quantity upto the above order value and tenderer shall be bound to accept the same at the same price without any escalation.	Please clarify. This should be not applicable.	Applicable as per provision of tender.

SL. NO.	REFERENCE CLAUSE OF TENDER	EXISTING PROVISION	BIDDER'S QUERY	BHEL'S CLARIFICATION
4	Clause No 7.3 of Volume-IA -Page 10 of 22	Should, however, any statutory alternation be made based on the rate prevailing at the time of tendering, the difference for excise duty & sales tax only, either up or down, will be to the account of BHEL. No variations on customs duty / exchange rate / minimum wages, prices of controlled commodities or any other input shall be payable by BHEL.	Any change in taxes and duties which are statutory in nature and beyond our control shall be BHEL account.	Statutory alternation as indicated in Clause no 7.3 of volume-IA shall be read in conjunction with Clause no 10.2.1 and Clause No 10.4.1 of Volume-IC(rev-00)-Special Conditions of Contract(Supply).
5	Clause No 16 of Volume-IC -Page 8 of 13	Payment Terms	We request to approve below payment terms: 1. <b>5%</b> Advance against 10% ABG 2. <b>5%</b> Against approval of drawing 3. <b>75%</b> of basic price of materials supplied along with 100 % ED & ST (as applicable) against dispatch document on prorata dispatch of material to site as per approved billing schedule 4. <b>5%</b> of basic price of materials received along with 100% freight & others, against Material Receipt Certificate (MRC) issued after receipt of materials and its physical verification at site on prorata basis. 5. <b>5%</b> against erection 6. <b>5%</b> against commissioning and PG trial run and i) successful completion of PG (Performance Guarantee) test/ demonstration test of the system/ package, as applicable; (ii) submission of final documents, eg as-built drawings, O&M manual etc; (iii) handing over of the system/ package to the owner and (iv) on submission of BG of equivalent amount valid till completion of guarantee/ warranty period.	As per tender provision
6	Section-C of Volume-II - Page 9 of 131	All major drawings/documents shall be approved by BHEL/Customer during detailed engineering. Stage. Successful vendor shall comply with the comment of the customer/BHEL without price & delivery implication.	The same shall be as per tender doc and PID. If any extra item apart from tender or drawing is require then unit rate for item will be applicable.	Please follow tender specification requirements
7	SI No 5. of Section-C of Volume-II -Page12 of 131	HORIZONTAL CENRIFUGAL PUMP	Request to approve Johnson / Flowserve / Kirloskar as approve vendor	Please follow tender specification requirements.

SL. NO.	REFERENCE CLAUSE OF TENDER	EXISTING PROVISION	BIDDER'S QUERY	BHEL'S CLARIFICATION
8	SI No 7. of Section-C of Volume-II -Page12 of 131	Gate Valve / NRV CHECK VALVE / BALL VALVE	Request to approve KSB / L & T / Microfinish / crane / Procon / Stafford as approve vendor	Please follow tender specification requirements.
9	SI No 17. of Section-C of Volume-II -Page13 of 131	PRESSURE GAUGE / DPG	Request to approve Wika / Waree as approve vendor	Please follow tender specification requirements.
10	SI No 18. of Section-C of Volume-II -Page13 of 131	LEVEL GAUGES / LEVEL SWITCHS	Request to approve Chemtrol as approve vendor	Please follow tender specification requirements.
11	SI No 26. of Section-C of Volume-II -Page14 of 131	PH ANALYSER	Request to approve Forbes Marshall / Emerson / ABB as approve vendor	Please follow tender specification requirements.
12	SI No 3 of Annexure-III of Volume-II -Page 23 of 131	Vendor shall provide lugs & glands accordingly.	Lugs and glands will be provide for those items which both end supply by vendor. Is vendor understanding right?	Please refer electrical scope sheet attached with the specification.
13	SI No 4 of Annexure-III of Volume-II -Page 23 of 131	Any special type of cable like compensating, co-axial, prefab, MICC, fibre optical etc.	Provide the distance or length of cable for estimation	The same shall be discussed during post bid meeting.
14	SI No 13 of Annexure-III of Volume-II -Page 24 of 131	Recommended O & M spares	Recommended O & M Spares for how many years??	For 3 years continous operation.
15	Annexure-I of Volume-II - Page 10 of 155	Raw water analysis	1. After balancing water analysis the TDS is coming 280 instead of 237 as mention. Please review and confirm. 2. Provide the Reactive silica value 3. Provide Total Alkalinity value	The same shall be discussed during post bid meeting.
16	SI No 1.0 of Data Sheet - A of Section-C of Volume-II -Page 11 of 155	DM Plant feed pump	As per PID the same in BHEL scope. Kindly clarify.	DM feed pumps are in bidder's scope.
17	SI No 6.4 of Data Sheet - A of Section-C of Volume-II -Page 12 of 155	DEGASSED WATER TRANSFER PUMPS	The capacity is given as 14 m3/h. Seems to be very low. It should be 60 m3/h. Kindly confirm.	Capacity of degassed water transfer pumps shall be as per system requirement.
18	SI No 19.0 of Data Sheet - A of Section-C of Volume-II -Page 15 of 155	ACTIVATED CARBON FILTER FOR ALKALI	Kindly provide the capacity for design.	Capacity of ACF for alkali shall be as per system requirement.
19	SI No 20.0 of Data Sheet - A of Section-C of Volume-II -Page 15 of 155	ALKALI DILUENT WATER HEATING TANK	Kindly provide the capacity for design.	Capacity of alkali diluent water heating tank shall be as per system requirement.

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20	SI No 27.0 of Data Sheet - A of Section-C of Volume-II -Page 17 of 155	Material of Construction, Piping	Kindly provide the MOC for piping for Raw / Filter Water	Please follow tender specification requirements.
21	SI No 28.1 of Data Sheet - A of Section-C of Volume-II -Page 17 of 155	Raw / Filter Water	As per PID the valve type is shown as Gate valve. In specification Butterfly or Gate valve has been asked. We are providing Butterfly valve. Kindly confirm	Please follow tender specification requirements indicated in "Piping, valves and fitting".
22	SI No 28.2 of Data Sheet - A of Section-C of Volume-II -Page 18 of 155	Decationised, Deanionised and Demineralised water application	As per PID the valve type is shown as Gate valve. In specification Butterfly or Diapharm valve has been asked. We are providing Butterfly valve. Kindly confirm	Please follow tender specification requirements indicated in "Piping, valves and fitting".
23	SI No 3.0 of Volume-II - Page 30 of 155	Vendor shall provide lugs & glands accordingly.	Lugs and glands will be provide for those items which both end supply by vendor. Is vendor understanding right?	Please refer electrical scope sheet attached with the specification.
24	SI No 18/19 of Section-C of Volume-II -Page 38 of 155	DIAPHRAGM VALVE / BUTTER FLY VALVE	Request to approve Crane / Procon / Stafford as approve vendor	Please follow tender specification requirements.
25	SI No 31 of Section-C of Volume-II -Page 39 of 155	CLARIFLOCULATOR	The same shall be as per vendor std.	Please follow tender specification requirements.
26	SI No 32 of Section-C of Volume-II -Page 39 of 155	TPI seperator	Request to approve K Pack / Krofta as approve vendor	Please follow tender specification requirements.
27	SI No 55 / 56 /57 of Section-C of Volume-II - Page 42 of 155	Analyser	Request to approve Forbes Marshall as approve vendor	Please follow tender specification requirements.
28	SI No A, 1.0 of Section-D1 of Volume-II -Page 45 of 155	Total silica (Reactive + Colloidal) - less than 0.02 ppm as CaCO3	Guarantee of Colloidal silica after DM plant is not possible. Vendor, recommended Ultrafiltration after DM plant for guarantee of Colloidal silica value.	The same shall be discussed during post bid meeting.
29	SI No A, 1.0 of Section-D1 of Volume-II -Page 45 of 155	pH - 6.8 - 7.2	This same shall be guarantee after pH correction.	Please follow tender specification requirements.
30	SI No 3.13 of Section-D1 of Volume-II -Page 51 of 155	Bidder to note that all statutory approvals of D.M. Plant and its associated system shall be the responsibility of the Bidder.	The same shall be BHEL scope. Vendor will provide all technical support doc require.	Please follow tender specification requirements.
31		PID for DM Plant	1. Kindly provide the legend for drawing. 2. In PID all valve shown as Gate valve, as per tender specification valve are Butterfly / diapharm type. Vendor is considering Butterfly type. Kindly confirm.	Please follow tender specification requirements indicated in "Piping, valves and fitting".

SL. NO.	REFERENCE CLAUSE OF TENDER	EXISTING PROVISION	BIDDER'S QUERY	BHEL'S CLARIFICATION
32	SI No xxxiii of Section-C of Volume-II-Page 8 of 173	The top water level in the clarified water distribution chamber shall be 3.5 meter. However the exact level shall be decided during detail engineering	Both the statements are contradiction.	The same shall be discussed during post bid meeting.
33	SI No 1.2,5 of Section-C of Volume-II-Page 8 of 173	The system shall be designed so that the Top water level in the clarified water distribution chamber shall be atleast 4 M from the finished ground level or higher		The same shall be discussed during post bid meeting.
34	SI No 14 of Section-C of Volume-II-Page 9 of 173	One no. gravity filter (RCC) in minimum four compartments	Vendor recommendation for Pressure sand filter instead of Gravity filter. The advantages are: 1. Less Civil work 2. Less Area requirement 3. Consistance outlet water quality 4. Expansion can be done 5. By pass arrangment can be made easely	Please follow tender specification requirements.
35	SI No 1.0, 3.0, 4.0, 5.0, 6.0 of Section-C of Volume-II-Page 18 of 173	Capacity of each equipment	Kindly provide the capacity of aerator, stilling chamber, Parshall flume, Flash Mixer and HRSCCR	Please follow tender specification requirements.
36	SI No 6.1 of Section-C of Volume-II-Page 18 of 173	Nos of HRSCCR	Both HRSCCR is working or 1W+1S HRSCCR.	Please follow tender specification requirements.
37	SI No 6.2 of Section-C of Volume-II-Page 18 of 173	Capacity of HRSCCR	The given flow rate 1500 m3/h is require at outlet or inlet of HRSCCR	Please follow tender specification requirements.
38		Approved vendor list	Please refer the above deviation points for approval of vendor	Please follow tender specification requirements.
39	SI No 3 of Volume-II-Page 56 of 173	Vendor shall provide lugs & glands accordingly.	Lugs and glands will be provide for those items which both end supply by vendor. Is vendor understanding right?	Please follow tender specification requirements.
40	SI No 4 of Volume-II-Page 56 of 173	Any special type of cable like compensating, co-axial, prefab, MICC, fibre optical etc.	Provide the distance or length of cable for estimation	The same shall be discussed during post bid meeting.
41	SI No 5.9 of Section-C of Volume-II-Page 7 of 169	Maximum operating speed of all the pumps shall be limited to 1500 rpm or less	Vendor recommendation for 2900 rpm for all pumps.	Please follow tender specification requirements.
42	SI No 5.11.10 of Section-C of Volume-II-Page 10 of 169	Any statutory clearance required for the system from MOEF or local pollution control board in bidder's scope.	The same shall be BHEL scope. Vendor will provide all technical support doc require.	Please follow tender specification requirements.

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43		Approved vendor list	Please refer the above deviation points for approval of vendor	Please follow tender specification requirements.
44	SI No 8.0 of Section-C of Volume-II-Page 18 of 169	VERTICAL CENTRIFUGAL PUMPS	Request to approve Johnson / Flowserve as approve vendor	Please follow tender specification requirements.
45	SI No 3.0 of Section-C of Volume-II-Page 54 of 169	Vendor shall provide lugs & glands accordingly.	Lugs and glands will be provide for those items which both end supply by vendor. Is vendor understanding right?	Please refer electrical scope sheet attached with the specification.
46	SI No 4.0 of Section-C of Volume-II-Page 54 of 169	Any special type of cable like compensating, co-axial, prefab, MICC, fibre optical etc.	Provide the distance or length of cable for estimation	The same shall be discussed during post bid meeting.
47		Flow Diagram for ETP	Kindly provide the below distance: 1. boiler blow down pump to Guard Pond 2. Tube settler overflow to Guard Pond 3. Effluent disposal pump discharge header 4. sludge transfer pump to Sludge sump to PT plant 5. Clarifier feed pump to Flash Mixer inlet	The same shall be discussed during post bid meeting.
48		Scope for Cooling tower blow down	Kindly clarify the scope of cooling tower blow down water	The same shall be discussed during post bid meeting.
49		Scope N - Pit Waste Water From DM Plant	Kindly clarify the scope of N - Pit Waste water From DM Plant	Please follow tender specification requirements.
50	SI No 3.0 of Annexure - VII of Volume-II-Page 35 of 170	Vendor shall provide lugs & glands accordingly.	Lugs and glands will be provide for those items which both end supply by vendor. Is vendor understanding right?	Please refer electrical scope sheet attached with the specification.
51	SI No 3.0 of Annexure - VII of Volume-II-Page 35 of 170	Any special type of cable like compensating, co-axial, prefab, MICC, fibre optical etc.	Provide the distance or length of cable for estimation	The same shall be discussed during post bid meeting.
52	SI No 4.2 of Section-D1 of Volume-II-Page 46 of 170	DESIRED OUTLET QUALITY	For guarantee of outlet quality, vendor recommendation for MGF and ACF after clarification.	Please follow tender specification requirements.
53	SI No 2.0 of Section-D1 of Volume-II-Page 46 of 170	The aeration tank shall be sized for 12 hours retention capacity	For conventional STP the aeration tank shall be sized for 8 -10 hours retention capacity.	Please follow tender specification requirements.
54	SI No 3.0 of Section-D1 of Volume-II-Page 46 of 170	The rise rate of clarifier shall not exceed 0.5 m3/hr/m2	For conventional STP, The rise rate of clarifier shall not exceed 1.5 m3/hr/m2	Please follow tender specification requirements.
55		Lab facilities to carry out trial run/commissioning and PG test	The same shall be in BHEL scope or it should be done outside lab.	Please follow tender specification requirements.

**FORMAT FOR NO DEVIATION CERTIFICATE**  
**(To be submitted in the bidder's letter head)**

BHARAT HEAVY ELECTRICALS LIMITED,  
Power Sector - Eastern Region,  
Plot no 9/1, DJ Block, Sector – II, Salt Lake City,  
Kolkata – 700 091

Sub	No Deviation Certificate.	
Job	Design, Engineering, Manufacturing, Supply/Delivery, Erection, Commissioning, Trial Run, Handing Over to Customer etc of water treatment plant packages excluding civil construction work for 2X 250 MW Barauni Extension Project at Begusarai,Bihar.	
Ref	01	TENDER NO. PSER:SCT: BRM-M1404:12
	02	BHEL's NIT, vide reference no PSER: SCT: BRM-M1404:3016 Date:31-10-2012
	03	BHEL's TCN-01, vide reference no PSER:SCT: BRM-M1404:TCN-01 Date: 20-11-2012
	04	BHEL's TCN-02, vide reference no PSER:SCT: BRM-M1404:TCN-02 Date: 27-11-2012
	05	All other pertinent issues till date.

Dear Sirs,

With reference to above, this is to confirm that as per tender conditions, we have visited site before submission of our offer and noted the job content & site conditions etc. We also confirm that we have not changed/ modified the tender documents as appeared in the website/ issued by you and in case of such observance at any stage, it shall be treated as null and void.

We hereby confirm that we have not taken any deviation from tender clauses together with other references as enumerated in the above referred NIT. We hereby confirm our unqualified acceptance to all terms & conditions, unqualified compliance to technical specification, integrity pact (if applicable) and acceptance to reverse auctioning process.

In the event of observance of any deviation in any part of our offer at a later date whether implicit or explicit, the deviations shall stand null & void.

We confirm to have submitted offer in accordance with tender instructions and as per aforesaid references.

Thanking you,

Yours faithfully,

(Signature, date & seal of authorized  
representative of the bidder)