



भारत हेवी इलेक्ट्रिकल्स लिमिटेड

(भारत सरकार का उपक्रम)

BHARAT HEAVY ELECTRICALS LIMITED

(A Govt. of India Undertaking)

TCN – 08

Ref: PSER:SCT:NKP-M1673:TCN-08

Date: 21-07-2015

Sub	Tender change notice (TCN) 08	
Job	Design, engineering, manufacturing, supply, erection & commissioning, etc of one (1) No. IDCT cooling tower Pkg for 3x660 MW units at North Karanpura Super Thermal Power Project, Jharkhand.	
Ref	1.0	Tender No. PSER:SCT:NKP-M1673:15
	2.0	BHEL's NIT, vide reference no PSER:SCT:NKP-M1673:4470, dated 20-05-2015
	3.0	BHEL's TCN-01, vide reference no PSER:SCT:NKP-M1673:TCN-01, dated 09-06-2015.
	4.0	BHEL's TCN-02, vide reference no PSER:SCT:NKP-M1673:TCN-02, dated 09-06-2015.
	5.0	BHEL's TCN-03, vide reference no PSER:SCT:NKP-M1673:TCN-03, dated 15-06-2015.
	6.0	BHEL's TCN-04, vide reference no PSER:SCT:NKP-M1673:TCN-04, dated 22-06-2015.
	7.0	BHEL's TCN-05, vide reference no PSER:SCT:NKP-M1673:TCN-05, dated 04-07-2015.
	8.0	BHEL's TCN-06, vide reference no PSER:SCT:NKP-M1673:TCN-06, dated 08-07-2015.
	9.0	BHEL's TCN-07, vide reference no PSER:SCT:NKP-M1673:TCN-07, dated 13-07-2015.
	10.0	All other pertinent issues till date.

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

- 1.0 Extension of due date of offer submission from **22-07-2015** to **31-07-2015 (15:00 Hrs)**.
- 2.0 Clarification to bidder's queries as per attached Annexure-A.
- 3.0 Revised 'No deviation certificate' as per enclosed Annexure-2. Bidder shall submit no deviation certificate as per enclosed format only.
- 4.0 All other terms & conditions of the tender shall remain unchanged.

Thanking you,

Yours faithfully,
for BHARAT HEAVY ELECTRICALS LTD

SR.ENGR (SCT)

Encl : As above.

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)

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

फैक्स/Fax : (033) 23211960

फोन/Phone : बोर्ड/EPABX : 23211691, 23211798, 23211796

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, erection & commissioning, etc of one (1) No. IDCT cooling tower Pkg for 3x660 MW units at North Karanpura Super Thermal Power Project, Jharkhand.	
Ref	1.0	Tender No. PSER:SCT:NKP-M1673:15
	2.0	BHEL's NIT, vide reference no PSER:SCT:NKP-M1673:4470, dated 20-05-2015
	3.0	BHEL's TCN-01, vide reference no PSER:SCT:NKP-M1673:TCN-01, dated 09-06-2015.
	4.0	BHEL's TCN-02, vide reference no PSER:SCT:NKP-M1673:TCN-02, dated 09-06-2015.
	5.0	BHEL's TCN-03, vide reference no PSER:SCT:NKP-M1673:TCN-03, dated 15-06-2015.
	6.0	BHEL's TCN-04, vide reference no PSER:SCT:NKP-M1673:TCN-04, dated 22-06-2015.
	7.0	BHEL's TCN-05, vide reference no PSER:SCT:NKP-M1673:TCN-05, dated 04-07-2015.
	8.0	BHEL's TCN-06, vide reference no PSER:SCT:NKP-M1673:TCN-06, dated 08-07-2015.
	9.0	BHEL's TCN-07, vide reference no PSER:SCT:NKP-M1673:TCN-07, dated 13-07-2015.
	10.0	BHEL's TCN-08, vide reference no PSER:SCT:NKP-M1673:TCN-08, dated 21-07-2015.
	11.0	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)

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)

POWER SECTOR EASTERN REGION DJ-9/1, SECTOR-II, SALTLAKE CITY, KOLKATA - 700 091

फैक्स/Fax : (033) 23211960

फोन/Phone : बोर्ड/EPABX : 23211691, 23211798, 23211796

ANNEXURE-A TO TCN-08**Design, engineering, manufacturing, supply, erection & commissioning, etc of one (1) No. IDCT cooling tower Pkg for 3x660 MW units at North Karanpura Super Thermal Power Project, Jharkhand.****Tender No. PSER:SCT:NKP-M1673:15**

S.No	Bidder's query	BHEL Reply/Clarification
1	<p>We are in receipt of TCN 07 wherein M/s BHEL has clarified in SI 1(4) that the "Pump head is with respect to FGL." Whereas in tender Annexure-A it is given as that the static head is with respect to min water level i.e. RL 459.00 M. This calls for extensive change in the sizing of the Cooling Tower and the area 70m x 22m seems insufficient. It is not clear whether we should consider the tender or the clarification. Please clarify</p>	<p>Pls note that the Clarification given for sl. no-1(4) in TCN-07 shall not be applicable. Kindly ignore and it is inadvertently written.</p> <p>Pls follow and comply sl no-2.8 of Data sheet-A of section -C1 ,Vol-IIB for calculating Total ACW Pumping Head.</p>
2	<p>Aviation lighting system as per Annexure-I to TCN 02 SI No 12 – Since height of cooling tower is within 15 M so aviation light is not required. Please confirm.</p>	<p>Aviation Lighting System is not required.</p>
3	<p>Please confirm Reverse Auction is applicable for this tender</p>	<p>Shall be as per tender/NIT.</p>
4	<p>Instrumentation at Cold Water Piping – Temperature transmitter with temperature elements – TCN 03 Vol IIB 3.6.02 Point No 9. We are unable to consider instrumentation at cold water piping as there is no available data on number of pump and out let pipe which are beyond vendor's scope. Please confirm acceptance of the same.</p>	<p>Pls refer Annexure- I of Section-C1 of Vol-IIB in this regard. There are two ACW outlet pipe header envisaged in vendor's scope. Pls comply technical spec.</p>

ANNEXURE-A TO TCN-08

Design, engineering, manufacturing, supply, erection & commissioning, etc of one (1) No. IDCT cooling tower Pkg for 3x660 MW units at North Karanpura Super Thermal Power Project, Jharkhand.

Tender No. PSER:SCT:NKP-M1673:15

S.No	Bidder's query	BHEL Reply/Clarification
5	<p>QAP Issues</p> <p>a) PVC Fill & Drift Eliminator- Assembly Fit up test</p> <p>b) Proof Load Test</p> <p>c) Blade track Variation and tip clearance shall be checked at site as per SI 4 page 1 of 2 of QAP</p> <p>d) Fan performance test at shop required to be witnessed by BHEL as per SI 9.11 & 9.12 of QAP</p> <p>e) One fan of each type and size will be performance tested as per corresponding code for air flow, static pressure.....temperature rise. Also all fans shall be subjected to run test of 4 hours during which noise, vibration, temperature rise and current drawn shall be measured SI No 14 of QAP</p> <p>i) The above tests are not possible at shop and to be conducted at site only</p> <p>ii) Proof load test of hardware only for Fan assembly shall be tested at Laboratory</p> <p>iii) Performance test to be conducted at project site only.</p> <p>Request for acceptance of above</p>	<p>Deviation not accepted. Pls comply all technical specification requirement.</p>
6	<p>In the original specification, the pumping head limit of 13M was with respect to minimum water level i.e. EL+1.5 (RL 459.0M). FGL is at EL-1.5M (RL 456.0M). In effect, the pumping head limit has been reduced by 3 MWC. This is due to the fact that the basin is being placed over-ground instead of the normal arrangement of under-ground basin.</p>	<p>Pls follow and comply sl no-2.8 of Data sheet-A of section –C1 ,Vol-IIB for calculating Total ACW Pumping Head</p>
7	<p>Pumping head limit of 13M with respect to FGL translates to 9.2 MWC w.r.t. basin curb. For a cooling tower with splash type fill such low pumping head limit is un-workable if we have to also comply with the fan power limit and space limit. Please review the pumping head limit and restore the original pumping head limit of 13M with respect to minimum water level or 16M with respect to FGL. Alternatively, please revise the CW basin arrangement to underground type.</p>	<p>Pls follow and comply sl no-2.8 of Data sheet-A of section –C1 ,Vol-IIB for calculating Total ACW Pumping Head</p>
8	<p>Referring to clause 2.0 of TCN-06 dated 8.7.15, we reiterate that clause 3.01.01, Vol. 2N, Section-3, sheet 1 of 5 will be acceptable to us subject to there being no deterioration in the soil bearing capacity at the revised location (if any). Incidentally, in the case of tender for cooling towers for 4 x 270 MW Manuguru thermal power station, BHEL/PEM has accepted our contention and confirmed that there will be no change in the location of the cooling towers.</p>	<p>There shall be no revised location/ change of location of Cooling Tower w.r.t to tender provision.</p>

ANNEXURE-A TO TCN-08

Design, engineering, manufacturing, supply, erection & commissioning, etc of one (1) No. IDCT cooling tower Pkg for 3x660 MW units at North Karanpura Super Thermal Power Project, Jharkhand.

Tender No. PSER:SCT:NKP-M1673:15

S.No	Bidder's query	BHEL Reply/Clarification
9	<p>As per TCN-07 published on 13.07.2015 you have stated that "Pump Head mentioned as 13M at (terminal point of header) is with respect to FGL". Thus, you have bound the height of the Cooling Tower.</p> <p>Initially you have mentioned in tender documents and various TCN that</p> <ol style="list-style-type: none">1. Maximum limit on power consumption per Cooling Tower for the cooling tower fans at fan motor inlet terminals is 225 KW.2. Maximum Plan of CT basin at FGL (Excluding Staircase) shall not exceed 70M x 22M. <p>From these two above design criteria, what we understand is fan motor power consumption and size of the Cooling Tower is already restricted. Now, the height of the Cooling Tower is also constrained. In this situation, the design standards are so stringent that no suitable Cooling Tower can be designed to match the entire specific design requirements. Our already selected cooling tower for this project has now become void and we have cross checked all calculations, cooling tower performance curve and structural design to select a suitable model but of no use. Hence, we request your authority to kindly look into the matter and allow us to consider the pump head mentioned as 13M with respect to Basin Curb Level (BCL). In this case, Fill Height of the proposed cooling tower will be suitable enough to get desired selection of cooling tower with standard performance</p>	<p>Pls follow and comply sl. no-2.8 of Data sheet-A of section –C1 ,Vol-IIB for calculating Total ACW Pumping Head.</p>