



भारत हेवी इलेक्ट्रिकल्स लिमिटेड

(भारत सरकार का उपक्रम)

**BHARAT HEAVY ELECTRICALS LIMITED**

(A Govt. of India Undertaking)

**TCN - 06**

Ref: PSER:SCT:VIZ-M1231:TCN-06

Date: 09-09-2011

Sub	Tender change notice (TCN) 06.	
Job	Design, engineering, manufacturing, supply, erection, commissioning etc of Fire Protection System for 2x520 MW units at HNPCL Vizag TPS, Andhra Pradesh.	
Ref	1.0	Tender no PSER:SCT:VIZ-M1231:11
	2.0	BHEL's NIT, vide reference no PSER:SCT:VIZ-M1231:2483, dated 09-08-2011.
	3.0	BHEL's TCN-01, vide reference no PSER:SCT:VIZ-M1231:TCN-01, dated 16-08-2011.
	4.0	BHEL's TCN-02, vide reference no PSER:SCT:VIZ-M1231:TCN-02, dated 20-08-2011.
	5.0	BHEL's TCN-03, vide reference no PSER:SCT:VIZ-M1231:TCN-03, dated 23-08-2011.
	6.0	BHEL's TCN-04, vide reference no PSER:SCT:VIZ-M1231:TCN-04, dated 24-08-2011.
	7.0	BHEL's TCN-05, vide reference no PSER:SCT:VIZ-M1231:TCN-05, dated 03-09-2011.
	8.0	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 submission of offer from 15-09-11 to **22-09-2011** (15:00 hrs).
- 2.0 Amendment/ clarification to tender as per enclosed Annexure-A.
- 3.0 Revised 'No deviation certificate' as per enclosed Annexure-2. Bidder to submit 'No deviation certificate' as per attached format only.
- 4.0 All other terms & conditions shall remain unchanged.

Thanking you,

Yours faithfully,  
for BHARAT HEAVY ELECTRICALS LTD

Engineer (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/ 23211795

**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 Fire Protection System for 2x520 MW units at HNPCL Vizag TPS, Andhra Pradesh.	
Ref	1.0	Tender no PSER:SCT:VIZ-M1231:11
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	5.0	BHEL's TCN-03, vide reference no PSER:SCT:VIZ-M1231:TCN-03, dated 23-08-2011.
	6.0	BHEL's TCN-04, vide reference no PSER:SCT:VIZ-M1231:TCN-04, dated 24-08-2011.
	7.0	BHEL's TCN-05, vide reference no PSER:SCT:VIZ-M1231:TCN-05, dated 03-09-2011.
	8.0	BHEL's TCN-06, vide reference no PSER:SCT:VIZ-M1231:TCN-06, dated 09-09-2011.
	9.0	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, SALT LAKE CITY, KOLKATA - 700 091

फैक्स/Fax : (033) 23211960

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

**RECORD NOTES OF PRE-BID MEETING HELD BETWEEN BHEL & BIDDERS ON 08.09.2011 AT PPEI BUILDING NOIDA FOR 2 X 520 MW, HNPCL VIZAG TPS - FIRE PROTECTION SYSTEM**

**Clarifications raised by bidders in the pre-bid meeting held were discussed & confirmed as under:**

1.0) BHEL clarified that construction of pipe trenches in the main plant area is in BHEL's scope. However, wrapping and coating of the pipes to be laid in the pipe trenches and sand filling over the pipes in trenches is in bidder's scope of supply.

2.0) BHEL informed the rating and no. of transformers to be protected as under:

1	Generator Transformer (GT)	216 MVA, (420/□3)/21 kV, Single Phase	3 per Unit and 1 Spare GT
2	Station Transformer (ST)	90 MVA, 400/11.5/11.5 kV	1 per Unit
3	Unit Transformer (UT)	25 MVA, 21/11.5 kV	2 per Unit
4	Unit Auxiliary Transformer (UAT)	16 MVA, 11.5/3.5 kV	2 per Unit
5	Station Transformer (SAT)	16 MVA, 11.5/3.5 kV	1 per Unit

3.0) BHEL clarified that min. 20 nos. potential free contacts shall be provided with each FAP for shutdown ventilation/air-conditioned/coal conveyor etc.

4.0) BHEL clarified that Switchyard Fire Protection System is excluded from bidder's scope.

5.0) BHEL clarified that Pressure Transmitters shall be provided for auto start of Pumps/compressor operation within FWPH.

6.0) BHEL clarified that MS pipe shall be heavy grade as per IS:1239 & IS:3589.

7.0) BHEL clarified that tapping point for filling the fire water tanks shall be provided within the vicinity of 10 M from the fire water tanks.

8.0) BHEL clarified that friction loss factor for hydraulic calculation shall C=100.

9.0) BHEL clarified that min. design conc. for Inert gas fire extinguishing system shall be 38% at 70 deg. F by vol.

10.0) BHEL clarified that booster pumps shall be provided if required.

11.0) BHEL clarified that the foam conc. factor shall be 3%

12.0) BHEL clarified that min. capacity of foam generator tank shall be 220 lit. & four nos. foam generator shall be provided.

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- 13.0) BHEL clarified that for Foam Pump House & Booster pump house remote I/O based control panel shall be provided.
- 14.0) Bidders to note the following information:  
HFO tanks: 2 nos., 12 M dia, 10.5M Ht.  
LDO tanks: 2 nos., 08 M dia., 6 M ht.
- 15.0) BHEL clarified that MVW spray system shall be provided for HFP tanks also.
- 16.0) BHEL informed that for FA system component makes approval from UL/FM/LPC/Vds are acceptable. Bidder noted.
- 17.0) BHEL clarified that the cathodic protection for the underground pipes is not in the bidder scope of supply. Bidder noted.
- 18.0) BHEL clarified that min. thickness for 200 NB to 350 NB pipe shall be 6.35 mm.
- 19.0) BHEL informed that Fire Tender & Fire Extinguishers are excluded from bidders scope.
- 20.0) BHEL clarified that bidders to consider min. no. of 500 panels/cubicles for estimation purpose.
- 21.0) BHEL informed bidders that they shall consider the zone as per indicated in the attached drg.(Annexure-B) for estimation purpose for Inert Gas system.
- 22.0) Following drgs are submitted to bidder for estimation purpose only. These drgs shall not form part of contract & final drgs shall be submitted during detail engg.

### **[PLEASE CLICK HERE](#)**

- 1.) PE-DG-361-100-M001 (Auto-Cad)
- 2.) PE-DG-361-100-M003 (pdf)
- 3.) PE-DG-361-100-M004 (pdf)
- 4.) PE-DG-361-100-M005 (pdf)
- 5.) PE-DG-361-100-M006 (pdf)
- 6.) PE-DG-361-100-M007 (pdf)
- 7.) PE-DG-361-100-M008 (pdf)
- 8.) PE-DG-361-100-E001 (pdf) - TRANSFORMER YARD LAYOUT
- 9.) PE-DG-361-100-E004(pdf) - SWGR. ROOM EL.3.5 M
- 10.) PE-DG-361-100-E006(pdf) - BOILER MCC ROOM
- 11.) PE-DG-361-100-E007(pdf) - ELECTRICAL LAYOUT IN ESP/VFD ROOM
- 12.) PE-DG-361-100-E020(pdf) - CABLE LAYOUT AT 24.0
- 13.) CHP CRUSHER HOUSE MCC & ROOM LAYOUT
- 14.) AHP & VACCUM PUMP HOUSE LAYOUT
- 15) AHP MCC-2 & COMP. HOUSE LAYOUT
- 16.) WAGON TRIPPLER MCC
- 17.) ASH SLURRY PUMP HOUSE
- 18.) ROOM LAYOUT OF MCC-2 JNT-5
- 19.) GA OF PENT HOUSE-2

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ANNEXURE-A TO TCN-06	PAGE 3 OF 3

- 20.) CONV. BCN 4A/4B
- 21.) CHP PLOT PLAN
- 22.) OIL CANAL DETAIL
- 23.) OIL ROOM ARRANGEMENT DRG.

23.0) BHEL informed bypass valves shall be provided across deluge valve.

24.0) BHEL informed pipe sizing shall be designed as per below:

- a) at pump suction: max. velocity to be considered is 1.5 m/sec.
- b) at pump discharge: max. velocity to be considered is 2.0 m/sec.
- c) outside piping (yard piping): velocity to be considered is 5.0 m/sec.