

BHARAT HEAVY ELECTRICALS LIMITED - PEM NOIDA

**NATURAL DRAUGHT COOLING TOWERS FOR TSGENCO 1 x 800 MW KOTHAGUDEM TPS, UNIT-12
AT KOTHAGUDEM, TELANGANA, INDIA**

PRE-BID CLARIFICATIONS (ADDITIONAL)

S.No.	Reference		Description	Query	Clarification
	Section	Cl. No			
1	Vol IIB; Section C	Clause no. 9.01.02	Wind load	Category 4 has been specified. However, generally Category 2 is standard stipulation. Please clarify / confirm.	Please follow specification.
2	Vol IIB; Section C	Clause no. 9.02.05	Crack width	Crack width of 0.1 mm for shell is generally applicable for very severe site / duty condition. Considering environment prevailing at Kothagudem, crack width should be 0.3 mm. Please clarify / confirm.	Please follow specification.
3	Vol IIB; Section C2 / Vol VB; Section XV	3.02.01	White flashing high intensity LED lights of Type 'A'	In cl.no.3.01.01 & v 3.04.01 of same section, Aviation lights are Xenon type. Pl. clarify.	Aviation lights shall be white flashing high intensity LED lights as per clause no. 3.02.01 of technical specification.
4	Vol IIB; Section C2 / Vol VB; Section XV	6.06.00	Ground grid resistance of the grounding system shall not be more than 0.5 ohm.	As per IS: 3043, it shall be limited to 1.0 ohm. Pl. review and confirm. Also provide Earth resistivity at proposed cooling tower.	Ground grid resistance shall be as per technical specification. Earth resistivity shall be provided during detailed engineering.
5	Vol IIB; Section C2 / Vol VB; Section XV	7.02.00&7.03.00, 8.01.00 & 8.02.00	...circumferential band shall be 75x10 thk... ...down conductors shall be 75x10thk... ...Air terminator 20 dia GS rod...	The sectional area of circumferential band and down conductors are 2.5 times more than air terminator This seems to be on higher side. 50 x 6 may be suitable. Please review and consider.	Same shall be as per technical specification requirement.

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6	Vol IIB; Section C2 / Vol VB; Section VII	Annex-C-6.1	Cooling Tower Area - 30 - Industrial well glass 70 W HPSV/ 125W HPMV lamp	Pl. specify supply & erection scope and area around tower required.	For interior and exterior lights please refer clause no. 4.00.00 of technical specification volume VB, Section XV. Supply and erection shall be as per scope sheet enclose with the specification.
7	Vol IIB; Section C2 / Vol VB; Section VII D	5.02.00	...Depth of basin from well top shall be suitable..	It may be sill top / basin top. Please correct / clarify.	It is from sill top.
8	Vol IIB; Section C2 / Vol VB; Section VII D	7.08.03 & 9.09.00g	Sluice gates or Butterfly valves in cold water outlet sumps shall be provided...appropriate class of IS: 3042.....	Is it drain sump? In cold water outlet, stoplogs conforming to IS: 5620 are provided as per CI # 9.02.11. Please clarify.	Shall be clarified separately.
9	Vol IIB; Section C4	1.1 - vi	Level switches for sump/tank level high/normal/low/very low interlocks.	Where these are required? Since Basin is connected to CWPH forebay, it can be included in Purchaser's CWPH.	This requirement is for bidder's equipment for NDCT in CT basin like sump pumps. Instruments in CW forebay are not in bidder's scope.
10	Vol IIB; Section D1	5.2	Ladders: Minimum Four (4) Nos.: Two from reinforced concrete stairs to platform at the top of the tower and other two shall be from ground level itself.	As per cl.no.3.02.01 of Vol. V-B, Section XV, aviation lights are required at top. Two number of ladders (1+1) would be sufficient to access top platform. Remaining two would be redundant. Please review and consider two ladders instead of four.	minimum Four ladders as per specification
11	IIB-D1-Data sheet-A	Ann-2	HW pipe terminal: 85m from Centre of CT	Pl. provide angle from centre of CT also.	The cordinates at TP shall be as follows: E348.4081 N 671.0641