BHARAT HEAVY ELECTRICALS LIMITED
PROJECT ENGINEERING MANAGEMENT, NOIDA

Date-29-Jul-19

CORRIGENDUM- 06

PROJECT	**:**	1 x 660 MW Panki STPP
PACKAGE	**:**	D.M. PLANT
ENQUIRY NO	**:**	PE/PG/PKI/E-6217/2019 Dt. 03.06.2019
SUBJECT	**:**	PRE-BID CLARIFICATION

Type of Corrigendum			
Technical Corrigendum -	☑	Commercial Corrigendum -	☐

In reference to the above mentioned tender enquiry please note the following.

1. Pre-bid replies and technical amendment attached below.

All the other terms and conditions of the tender enquiry remain unchanged. All the bidders are requested to quote accordingly.

Yours faithfully,

For and on behalf of BHEL

VINIT KUMAR VERMA

Digitally signed by VINIT KUMAR VERMA
DN: c=IN, o=BHARAT HEAVY ELECTRICALS LIMITED, postalCode=201301, st=Uttar Pradesh, 2.5.4.20=6548fa91156ed58ab733462e2c216ee861e12e8b63f3f0fdc6527323d5766b2f, serialNumber=8b7f06e2ef4d7d5cb58c26fb12c7db987c445ca810453d3685305ea07a561880, cn=VINIT KUMAR VERMA
Date: 2019.07.29 11:21:01 +05'30'

Vinit Kumar Verma
Dy. Manager

Bidder's Clarification	BHEL Reply
Regarding performance guarantees. As per the specifications requirement, **MB outlet guarantees** shall be as follows: a) Reactive silica not to exceed: 0.01 ppm as SiO_2 Further, **UF outlet guarantees** shall be as follows: a) Colloidal Silica as SiO_2: less than 1 ppb b) Total Silica as SiO_2: less than 10 ppb · Firstly, there is a mismatch within the guarantee requirement. If Reactive silica at MB outlet is <0.01 ppm as SiO_2 and Total Silica as SiO_2 at outlet of UF is < 10 ppb then Colloidal Silica at the outlet has to be **zero;** <u>which is an impossible situation to achieve</u>. · Further, after discussions with all known UF Suppliers, it is very clear that we cannot achieve colloidal Silica < 1 ppb at the outlet of UF. Under the present situation, it is very clear that the guarantees being asked in the specs cannot be achieved. I view of above, it is requested that specifications are revised and clear achievable guarantees are defined between BHEL and bidders so that there are no open points left for approval during detail engineering. Bidder's submission is as under: 1. The design of the plant depends upon the inlet and outlet parameters. A system cannot be designed if outlet parameters are not fixed. 2. Supply period is defined for 12 months. Substantial time would be lost taking approvals from Customer which would delay the commencement of Engineering further resulting in delay of the project. 3. In case some unknown Vendor is recommended by the Customer during detailed engineering, who is ready to meet the guarantees at a highly exorbitant cost, it would not be possible to introduce that vendor at that stage since that type of high cost would not have been envisaged during tendering stage. In view of above, it is requested that clear achievable guarantee requirements are defined in the specifications enabling us to do the correct design, correct estimation and submit a competitive bid.	In case, no UF membrane suppliers is able to meet the guarantee the relevant supporting documents shall be submitted by the vendor subject to customer approval during detail engineering without commercial & delivery implication to BHEL & end customer.

Sr. No.	Section	Clause No.	Page No.	Specification Requirement	Additional Clarification dated 01-July-2019	Reason for Bidder's Clarification / Assumption	BHEL Reply dated 20/07/2019	Bidder's Queries 23-Jul-2019	BHEL Reply dated 26/07/2019
Mechanical Clarification									
1.	Corri-gendum-1, 2 & 3	-	11 of 12 & 2 of 3	Sr. no.8 of Corrigendum-1, Sr. no. 3 of Corrigendum-2, sr. no. 1 of Correigendum-3: Specification requirement: d. ULTRA FILTRATION PLANT: a) Colloidal Silica as SiO2 - less than 1 ppb. b) Total Silica as SiO2- less than 10 ppb.	None of UF membrane manufacturer is None of UF membrane manufacturer are ready to submit offer complying with the requirement as specified in the tender. According to them, colloidal silica less than (<10 ppb) may escape in the outlet of UF and hence it cannot be guaranteed. Please confirm actual requirement. Further, total silica at outlet of UF shall be calculated considering 0.01 ppm reactive silica at the outlet of MB and the colloidal silica shall be added as guaranteed by the UF manufacturer.	UF membrane manufacturer recommend the Guarantee from UF plant outlet shall be: a) Colloidal Silica as SiO2 - <10 ppb b) Total Silica as SiO2- <20 ppb i.e. 10 ppb of colloidal silica + 10 ppb of reactive silica. Find UF Vendor response:  UF vendor reponse_.pdf	In case, no UF membrane suppliers is able to meet the guarantee the relevant supporting documents shall be submitted by the vendor subject to customer approval during detail engineering without commercial & delivery implication to BHEL & end customer.	We have already checked up at our end and none of the UF suppliers are agreeing to meet the guarantees as defined in the tender specification. You are kindly requested to amend the guarantee requirement or advise the name of UF supplier who has agreed to meet the guarantee parameters with BHEL or any other bidder.	In case, no UF membrane suppliers is able to meet the guarantee the relevant supporting documents shall be submitted by the vendor subject to customer approval during detail engineering without commercial & delivery implication to BHEL & end customer.

Sr. No.	Section	Clause No.	Page No.	Specification Requirement	Additional Clarification dated 01-July-2019	Reason for Bidder's Clarification / Assumption	BHEL Reply dated 20/07/2019	Bidder's Queries 23-Jul-2019	BHEL Reply dated 26/07/2019
2.	I	Data sheet A	291 of 612	7.4 Capacity- 25 m3/hr 7.5 Pump total head excluding losses in the pump- 62 MWC 7.6 Pump speed - 1500 rpm	Due to low capacity and high head requirement, pump manufacture recommended 2900 rpm instead of 1500 rpm. We request you to consider pump speed as 1500/2900 rpm.		Acceptable, subjected to acceptance by customer without commercial and delivery implication to BHEL & end customer.	Point closed.	-------