



BHARAT HEAVY ELECTRICALS LIMITED
PROJECT ENGINEERING MANAGEMENT, NOIDA

Date-29-Apr-20

CORRIGENDUM- 06

PROJECT	:	3x800 MW PVINL PATRATU TPP PHASE-1
PACKAGE	:	Sewage Treatment Plant
ENQUIRY NO	:	PE/PG/PA1/E-6405/2019 Dated. 07.03.2020
SUBJECT	:	PRE- BID CLARIFICATION

Type of Corrigendum			
Technical Corrigendum -	☒	Commercial Corrigendum -	☐

In reference to the above mentioned tender enquiry for **Sewage Treatment Plant** package

Please note the following.

1. Please find the attached pre-bid clarification for your consideration.

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

Guru Das
Dy. Manager

Sr. No.	Queries	Reply
1	As mentioned in Tender BOD in treated water shall be < 10 PPM which is achieved by adding Ozone generator before Treated water tank. With current treatment scheme it is difficult to achieve BOD ≤ 10 PPM. Therefore Please confirm your view on the same.	Bidder to note tender specification requirement given at page 28, clause no 3.1.58: "Requirements/ supply of any necessary equipment/instruments to meet/comply to statutory obligations is in bidder's scope." Bidder to note that the requirements indicated in P&ID, are minimum requirements. Any additional provisions as may be required (based on bidders design), so as to meet/comply to CPCB/Statutory norms shall be provided by supplier in addition to the bare minimum stipulations. For the additional provisions/scheme, philosophy of requirements (including instruments requirements/ redundancy requirements) as indicated in tender P&ID shall be followed/ complied. During detailed engineering, the proposed scheme/ engineering documents shall be subject to BHEL/End customer review & approval, within the intent/ stipulations/ requirements of the tender specifications.
2	As mentioned in Tender Total Nitrogen & NH4-N in treated water shall be <10 PPM & <5 PPM respectively which is achieved by nitrification & denitrification process. For this addition of Anoxic tank with mixer is necessary in current scheme. Therefore Please confirm your view on the same.	Pl. refer reply at S.no 1 above and comply without any deviations.
3	Please provide the dimensions of the 8 no. of Sumps which are in RCC outside the STP Area.	Sump depth may vary from 2.5 meter to 4.5 meter from FGL. Bidder to consider the same while selection of pumps. Actual invert level of sump shall be informed during detailed engineering. Further bidder to also refer to page 44, clause 19.0 (S.no. 5), with respect to sizing of pumps.
4	Every RCC tank is provided with level transmitter. Please let us know what type of level transmitter is required. (Capacitance type, Ultrasonic type or Float type).	Vendor to select ultrasonic type or radar type level transmitter to best suit application requirement, based on their design & depending on liquid media/sewage in tank. Bidder to also refer Note: 1) at pg 372 of specifications.
5	If the requirement of level transmitter is ultrasonic or capacitance type, single level transmitter for each tank is sufficient. But in P&ID 3 no. of level transmitter has been shown. Please let us know the philosophy behind the same.	Vendor to refer reply above with respect to type of level transmitter. As regards no of transmitter, vendor to comply to tender specifications. Further vendor to refer clause 3.1.53, pg 28, clause 13 pg 359 and specifically clause 31 pg 361 wrt requirement for quantity/redundancy of instruments. Bidder to comply to tender requirements without any deviations.
6	Level transmitter - 3 Nos. has been shown for each dosing tank. Please confirm the type of level indicator.	Vendor to refer to reply at S.no 4 and 5 above wrt no of level transmitter. Level indicator -Float/Pulley/Tubular Type, for dosing tanks shall be acceptable.
7	Please let us know the technical specification for stand alone electric control panels outside the STP area.	Vendor to refer to pg 403-407 of tender specs.
8	Please confirm Make for below components for which makes are not given in tender..... 1. MBBR Media 2. Tube Media 3. Screw Pump for Sludge transfer	Bidder to refer pg 36, clause 9.0 (2) in this respect and comply to specification requirements.
9	To get the desired Sewage outlet as per new CPCB norms, as in the new norm limit of NH4-N and total N also been included desired parameter of the treated water for which Anoxic Tank is required which is missing in the scheme given in the tender document, even ozonation should be included to achieve the BOD limit of less than 10 mg/lit.	Pl. refer reply at S.no 1 above and comply without any deviations.