



BHARAT HEAVY ELECTRICALS LIMITED  
PROJECT ENGINEERING MANAGEMENT, NOIDA

Date-21-Apr-22

CORRIGENDUM- 01

PROJECTs	:	3X200 + 3X500 MW NTPC RAMAGUNDAM TPP FGD
PACKAGE	:	GYPSUM DEWATERING EQUIPMENT (Sub-Assembly of FGD)
ENQUIRY NO	:	PE/PG/RGM/E-6931/2021 Dated 31.03.2022
SUBJECT	:	PRE- BID CLARIFICATION

Type of Corrigendum			
Technical Corrigendum -	<input checked="" type="checkbox"/>	Commercial Corrigendum -	<input checked="" type="checkbox"/>

Bidders are requested to go through the following –

1. Refer attached BHEL replies to pre-bid clarifications.

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

Sharad Chandra  
Manager/BOP

**[3X200 + 3X500 MW NTPC RAMAGUNDAM TPP FGD of Enquiry No. : PE/PG/RGM/E-6931/2021, Dated- 31-03-2022]**

**PRE-BID CLARIFICATION SCHEDULE - RESPONSE BY BHEL**

S. NO.	SECTION	CLAUSE	PAGE NO.	STATEMENT OF THE REFERRED CLAUSE	CLARIFICATION REQUIRED by Bidder	BHEL Reply 20.04.2022
1	Tendernotice _3	2.1.1.9.ii	41 of 423	Scope of below-mentioned interconnected piping (slurry, air and water pipes) along with valves, rubber lining (wherever applicable), instruments, valves, supports, gaskets, fasteners and accessories which is non-integral to Gypsum dewatering system is limited to engineering only and supply shall be made by BHEL. Engineering includes layout & routing of pipes, preparation of isometric drawing and BOQ:	Bidder understand all the drawings required for the engineering shall be provided by BHEL (Drawings for valves, pumps and other requirements). Please confirm.	Mechanical layout of the building is already attached as tender drawing. Bidder to prepare piping layout accordingly during detail engg. Applicable interfacing details shall be made available during detailed engineering of the package.
2	Tendernotice _3	2.3.7	44 of 423	Discharge of Gypsum through discharge chute onto the gypsum belt conveyor is in bidder's scope. Please refer enclosed P&IDs, typical layout & preliminary elevation drawing of GDWE building for the details in the scope.	Referring to the page no 423 of 423. As per GA of gypsum dewatering building layout drawing, Bidder understand that chute length upto BHEL PEM scope is in Bidder scope and other chute part mentioned BHEL Vendor MBPL scope is Excluded from Bidder scope. please confirm the same and provide the length of the discharge chute (from Floor 16.80 m) need to consider.	Refer Clause no. 2.1.1.3, Page 39 of 550. The discharge chute up to the gypsum conveyor skirt board is in bidder's scope.
3	Tendernotice _3	4.4.1	48 of 423	The filtrate from each belt filter, cake washing & cloth washing shall be taken to a common or separate receiver tank(s) as per the supplier's proven practice	Filtrate and cake washed water shall be collected in single receiver and cloth washed water shall be collected in drip tray (client scope). as per client PID (Drawing no B240-00411 & B240-00412).	The arrangement indicated in P&IDs at page no. 428 & 429 of 550 is to be followed.
4	Tendernotice _3	4.5.9	49 of 423	Design pumps not to be damaged during reverse rotation at up to 150% of design RPM, at full discharge head in the event that a pump trips while the other operating pump remain on line.	Reverse rotation is not recommended. To have check valve, Immediately after discharge flange of pump.	The mentioned condition is for design. For routine operation, Check valve/ NRVs have to be considered as per requirement of system.
5	Tendernotice _3	10	56 of 423	d). Exclusion-3D Modeling	There is no input for 3d modeling from Bidder side. Bidder shall provide the basic engineering details for the supplied items. (AutoCAD drawings as per vendor standard).	Bidder to follow tender technical specification. Bidder to refer cl 10.0 page 56 of 550 wherein 3D modelling has already been indicated under exclusion.
6	Tendernotice _3		76 of 423	PART - C -GENERAL TECHNICAL REQUIREMENTS	This spec. is applicable for main contractor & not applicable to Bidder. Please confirm.	Relevant clauses shall be applicable for the bidder limited to the Gypsum Dewatering Equipment. Any specific point may be brought to BHEL's notice.
7	Tendernotice _3	28.00.00	120 of 423	TRAINING OF EMPLOYER'S PERSONNEL	This clause is Not applicable to Bidder. Please confirm.	Training requirement have been mentioned at clause no. 2.1.2, sub section C1, page 42-43 of 550 of technical specification. Bidder to follow Tender specification.

S. NO.	SECTION	CLAUSE	PAGE NO.	STATEMENT OF THE REFERRED CLAUSE	CLARIFICATION REQUIRED by Bidder	BHEL Reply 20.04.2022									
8	Tendernotice _3	16.00.00	225 of 423	<p>FIELD INSTRUMENTS BASED ON FIELDBUS</p> <p>The following instruments shall be connected to DDCMIS through fieldbus i.e. FOUNDATION Fieldbus/PROFIBUS PA protocol complying to IEC 61158 directly from transmitter.</p> <p>Electronic Transmitter for Pressure, Differential Pressure and DP based Flow / Level measurements.</p> <table border="1"> <thead> <tr> <th>S No.</th> <th>Features</th> <th>Essential/Minimum Requirements</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Type of Transmitter</td> <td>FOUNDATION Fieldbus/PROFIBUS PA based output</td> </tr> <tr> <td>2.</td> <td>Accuracy</td> <td> <math>\pm 0.060</math> % of calibrated range (minimum) for calibrated range greater than 400 mmwc.  <math>+0.065</math>% of calibrated range (minimum) for calibrated range greater than 250 kg/cm<sup>2</sup>.  <math>\pm 0.10</math> % of calibrated range (minimum) for calibrated range less than 400 mmwc. </td> </tr> </tbody> </table>	S No.	Features	Essential/Minimum Requirements	1.	Type of Transmitter	FOUNDATION Fieldbus/PROFIBUS PA based output	2.	Accuracy	$\pm 0.060$ % of calibrated range (minimum) for calibrated range greater than 400 mmwc. $+0.065$ % of calibrated range (minimum) for calibrated range greater than 250 kg/cm <sup>2</sup> . $\pm 0.10$ % of calibrated range (minimum) for calibrated range less than 400 mmwc.	Mentioned two protocols in technical spec Kindly clarify which protocol shall be consider for pressure, level and flow transmitters	Same has been specified at clause sl no. 3, page 214 of 550 of the technical specification.
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1.	Type of Transmitter	FOUNDATION Fieldbus/PROFIBUS PA based output													
2.	Accuracy	$\pm 0.060$ % of calibrated range (minimum) for calibrated range greater than 400 mmwc. $+0.065$ % of calibrated range (minimum) for calibrated range greater than 250 kg/cm <sup>2</sup> . $\pm 0.10$ % of calibrated range (minimum) for calibrated range less than 400 mmwc.													
9	Tendernotice _3	2.b	393 of 423	Mandatory spares list 2,b) Belt - 1 Set	Bidder shall be supplying consumable belt.	Bidder to follow Tender specification. All applicable Belts shall be supplied.									
10	Tendernotice _3		402 of 423	Conveyor & Silo Extraction Device	Not applicable to Bidder.	The items as applicable for Gypsum Dewatering System indicated under General Inspection Requirements are to be covered.									
11	Tendernotice _4		5 of 127	As per PID, Seal water for VBF Vacuum box connection is taken from Belt Filter washing pump water pipeline.	Bidder proposes, Seal water for VBF Vacuum box pipe connection taken from cake wash water line.	Bidder to follow Tender specification.									
12	PRICEFOR MATGDS				Bidder Understand that in price sheet Need to enter Equipment base price only excluding GST or any other taxes, please confirm.	Bidder to quote prices excluding GST and as per price format only. Bidder to refer Clause No 4.2 of GCC Rev-07									
13	General				Drip tray (civil work) design, Engineering and supply is in Client scope. Please confirm.	Specification requirement is clear. Kindly refer exclusions mentioned at page 428/429 of 550. However, bidder to provide the input of the drip tray during detail engineering.									