



BHARAT HEAVY ELECTRICALS LIMITED
PROJECT ENGINEERING MANAGEMENT, NOIDA

Date-21-Apr-22

Corrigendum 01

PROJECT	:	2x250 MW NSPCL BHILAI TPP-FGD
PACKAGE	:	GYPSUM DEWATERING EQUIPMENT (VACUUM BELT FILTER TYPE)
ENQUIRY NO	:	PE/PG/BLI/E-6932/2021 dated. 01.04.2022
SUBJECT	:	Replies of Pre-Bid queries

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

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

1. Please find attachment for pre-bid replies.

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

Yours faithfully,

For and on behalf of BHEL

Vinit Kumar Verma
Manager

ANNEXURE-3 [NSPCL BHILAI TPP-FGD of Enquiry No. PE/PG/BL/E-6932/2021, 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_8	2.1.1.9. ii	41 of 300	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 that 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_8	4.4.1	48 of 300	The filtrate from each belt filter, cake washing & cloth washing shall be taken to 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). This is as per proven practice with the similar type of application.	The arrangement indicated in P&IDs at page no. 436 & 437 of 539 is to be followed.									
3	Tendernotice_8	4.5.8	49 of 300	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.									
4	Tendernotice_8	10.0.D	56 of 300	Exclusion-3D Modeling	There is no 3d modeling of layout from bidder side. Bidder shall provide the basic engineering of Equipment layout with load data for the scope of supply of equipment and platforms by bidder. Rest all detail engineering of complete building by the client. The (Layout drawings) inputs to client shall be in AutoCAD format as per vendor standard. Client to confirm the same.	Bidder to follow tender technical specification. Bidder to refer cl 10.0 page 56 of 539 wherein 3D modelling has already been indicated under exclusion.									
5	Tendernotice_8	Vii	69 of 300	Including Filtrate Extraction Pump After Vacuum Receiver, Vent Fan & Sump Pump etc.	Sump pump is not applicable, please confirm.	Bidder to follow tender technical specification. The list is indicative and bidder to refer Note-7 of the ANNEXURE-IV (GUARANTEED POWER CONSUMPTION FORMAT).									
6	Tendernotice_8		95 of 300	PART - C -GENERAL TECHNICAL REQUIREMENTS	This spec. is applicable for main contractor & not to BHEL's sub contractors. 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_8	13.0.00	240 of 300	<p>13.00.00 FIELD INSTRUMENTS BASED ON FIELDBUS The following instruments shall be connected to DDCMES through fieldbus i.e. FOUNDATION Fieldbus/PROFIBUS PA protocol complying to IEC 61158 directly from transmitter.]</p> <p>13.01.00 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>± 0.060 % of calibrated range (minimum) for calibrated range greater than 400 mmwc ± 0.050% of calibrated range (minimum) for calibrated range greater than 250 kg/cm2. ± 0.10 % 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	± 0.060 % of calibrated range (minimum) for calibrated range greater than 400 mmwc ± 0.050% of calibrated range (minimum) for calibrated range greater than 250 kg/cm2. ± 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 227 of 539 of the technical specification.
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8	Tendernotice_8	28.00.00	138 of 300	TRAINING OF EMPLOYER'S PERSONNEL	Not applicable to Bidder.	Training requirement have been mentioned at clause no. 2.1.2, sub section C1, page 43 of 539 of technical specification. Bidder to follow Tender specification.									

ANNEXURE-3 [NSPCL BHILAI TPP-FGD of Enquiry No. PE/PG/BL/E-6932/2021, 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						
9	Tendernotice_8	2.02.00	240 of 300	<p>2.02.00 GUIDED WAVE RADAR TYPE LEVEL TRANSMITTER</p> <table border="1"> <tr> <td>Type</td> <td>Microprocessor based 2 wire type (loop powered), HART protocol compatible Guided wave radar transmitter.</td> </tr> <tr> <td>Principle</td> <td>TDR (Time domain reflectometry)</td> </tr> <tr> <td>Probe Type & Material</td> <td>(i) Coaxial probe of SS316/316L. If required, probe shall be suitable for overfill prevention.</td> </tr> </table>	Type	Microprocessor based 2 wire type (loop powered), HART protocol compatible Guided wave radar transmitter.	Principle	TDR (Time domain reflectometry)	Probe Type & Material	(i) Coaxial probe of SS316/316L. If required, probe shall be suitable for overfill prevention.	Mentioned two protocols in technical spec Kindly clarify which protocol shall be consider for pressure, level and flow transmitters	As mentioned at clause sl no. 3, page 227 of 539 of the technical specification, please note that PROFIBUS PA compatible transmitters shall be provided for the following type of transmitters only :-(i) Pressure Transmitters(PT) (ii) Differential Pressure Transmitters(DPT) (iii) DP based Level Transmitter (iv) DP based Flow Transmitters (v) Temperature TransmittersAll other type of transmitters viz. Guided Wave Level Transmitter, Ultrasonic Level Transmitter, etc. shall be HART protocol based as per the requirement of Technical Specification.
Type	Microprocessor based 2 wire type (loop powered), HART protocol compatible Guided wave radar transmitter.											
Principle	TDR (Time domain reflectometry)											
Probe Type & Material	(i) Coaxial probe of SS316/316L. If required, probe shall be suitable for overfill prevention.											
10	Tendernotice_9	5.00.00	29 of 153	LOCAL INSTRUMENT ENCLOSURE AND RACKS ALL Transmitters, switches etc. For FGD sytem and other sytem being provided under the contract shall be suitably grouped together and mounted inside LIE/LIR	LIE/LIR being provided for all level, pressure and flow transmitters only.	Bidder to follow Tender specification.						
11	Tendernotice_9	2.b	105 of 153	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.						
12	Tendernotice_9	7	111 of 153	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.						
13	Tendernotice_9		136 of 153	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.						
14	Tendernotice_10	III.B	89 of 108	For sealing of inspection doors labyrinth type arrangement to be provided.	For sealing of inspection doors of chute rubber gaskets shall be provided instead of labyrinth as it is static / stationary equipment. Please confirm.	The requirement mentioned in specification is minimum. However, bidder may propose better but proven solution during detailed engineering.						
15	PRICE FORMAT BHILLA FGD				Bidder Understand that in price sheet Need to enter Equipment base price only excluding GST or any other taxes, please confirm.	Bidder is requested to quote the prices in line with price format only.						
16	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 436/437 of 539. However, bidder to provide the input of the drip tray during detail engineering.						
17	General				Piping software and version details to be provided	Same shall be provided during detail engineering.						