



BHARAT HEAVY ELECTRICALS LIMITED
PROJECT ENGINEERING MANAGEMENT, NOIDA

Date-28-Jun-21

CORRIGENDUM- 03

PROJECTs	:	3x40 MW RAMMAM STAGE-III HEP
PACKAGE	:	HVAC for Hydro
ENQUIRY NO	:	PE/PG/NHL/E-6645/2021 Dated 24.05.2021
SUBJECT	:	DUE DATE EXTENSION + PRE-BID CLARIFICATIONS

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

Bidders are requested to go through the following -

1. Due date & time of bid submission has been extended upto 01.07.2021 @11:00 AM. Bid opening shall be done at 04:00 PM on the due date.
2. Refer attached BHEL replies to pre-bid queries.
3. Refer attached Technical Amendment # 1

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

Upendra Chaudhary
Manager/BOP

PRE-BID CLARIFICATIONS				
SI No	Section / Clause / Page No	Staement of the referred Clause	Clarification Required	BHEL's REPLY
1	BOQ Item Sl. No. A:2. 1: PUMP	BOQ Item Sl.No. A:2. 1: PUMP	Kindly confirm the Qty of water to be circulated in the AHU for selection of pump. or confirm the capacity of the pump.	Air flow for AHU, river water temperature and inside/ambient conditions is already given in the specification. Bidder to select pump capacity accordingly.
2	BOQ Item Sl. No. A:2.1: PUMP	BOQ Item Sl. No. A:2.1: PUMP	Kindly confirm the place where the pump, cyclone separator, Automatic Backwash self Cleaning filter to be installed	Refer Amendment 1.
3	Drawing No. 12000019858	AHU Room & PAC Room	The plant room shown or the AHU will be not be enough	Adequate space is available for equipment placement. Bidder to select equipment in line with availabe space.
4	Drawing No. 12000019858	AHU Room & PAC Room	Distance between the Tank and AHU Room to calculate the QTY of the piping length	Bidder to refer plot plant and other layout drawings (Drg no. 5602-002-P-E-C-A-12, 5602-002-P-E-C-A-13 & 5602-001-P-E-E-A-110) enclosed with the specification and estimate the pipe length.
5	BOQ Item Sl. No. C:1.7: Insulation	BOQ Item Sl. No. C:1.7: Insulation	Kindly specify the cold water piping insulation specification.	Refer Amendment 1.
6	Drawing No. 12000019858	AHU Room & PAC Room	Whether the piping from the tank to AHU will brought above ground level or below ground level	Refer Amendment 1.
7	Drawing No. 12000019858	AHU Room & PAC Room	Kindly advise on maintaining inside condition of the room temperature in different areas by using a common AHU for all the areas. It is better to use Independent AHU for each area.	Bidder to follow specification.
8	Drawing No. 12000019858	AHU Room & PAC Room	Routing drawing for the piping from tank to AHU Room	Tapping point for water already shown in P&ID for Ventilation system (Drg no. PE-DG-414-571-11000-A001). The routing shall be finalized during detailed engineering.
9	BOQ Item Sl. No. B:1. Air cooled PAC	BOQ Item Sl. No. B:1. Air cooled PAC	Kindly confirm capacity of Package unit VS place of feeding. Approximate distance between condensing unit and Package unit to calculate the piping distance	Tentative location of ODU and IDU for PAC is already shown in the drawing (Drg no. 12000019858 & 12000019856). Bidder to estimate accordingly.
10	BOQ Item Sl. No. B:2. Split AC	BOQ Item Sl. No. B:2. Split AC	approximate distance of copper piping for hi wall split unit. whether the power socket will be provided with in 1.5 mtr of indoor unit	Bidder's scope for Electricals starts from power supply for incoming feeder, which shall be provided by BHEL. Subsequent, power distribution is in bidder's scope. Refer 'Standard Electrical Scope between BHEL & Vendor' attached along with technical specification. Accordingly, location of power socket for indoor units shall be decided by bidder during detail engineering considering the layout aspects.
11	BOQ Item Sl. No. C:1.7 & 1.8	Thermal Insulation	Kindly confirm the Insulation thickness for ventilation ducting & air conditioning ducting	Refer clause 9. Insulation for HVAC system of Sub-section C-1, stamp running page 29 of 880).
12	Drawing No. PE-DG-414-571-11000-A001	P&I for Ventilation	Field instrument will considered as per schematic drawing provided for AHU Area	Bidder to follow specification in totality.
13	BOQ Item Sl. No.7	Local control panel	Kindly confirm item No.7 Local Control Panels along with fixing arrangement as per requirement for completeness of HVAC system Belongs to which equipment's	Local Control Panels along with fixing arrangement as per requirement for completeness of HVAC system, need to be supplied by vendor.
14	BOQ Item Sl. No. 10.01 to 10.04	Electrical Panel	Kindly share the schematic drawing for Electrical Panel	Technical Specification is clear in this regard, kindly refer TECHNICAL SPECIFICATION (ELECTRICAL PORTION) sub-section-C3 (stamp running page 360 to 602)
15	Drawing No. 12000019858	AHU Room & PAC Room	Kindly confirm the Location of Electrical panel will be in the respective rooms like Ahu room separately & package unit area separately. Necessary Incoming supply will be provided to our panel in respective place.	Technical Specification is clear in this regard, bidder to follow technical specification in totality. Kindly refer TECHNICAL SPECIFICATION (ELECTRICAL PORTION) sub-section-C3 (stamp running page 360 to 602)
16	BOQ Item Sl. No. 11	SCADA / DDCMIS	Hope we are not doing any SCADA/DDCMIS system from our end. We will provide necessary instrumentation as schematic drawing provided to us.	Requirement is clearly specified. Please refer clause no. 10 of Specific Technical Requirement (Page no. 30 of 880) in Technical specification for HVAC system.

Technical Amendment # 1

S. No.	Specification Clause no.	Original statement as per	Clarification / Amendment / Addition		
1	5.2 VENTILATION SYSTEM, Sub-section C-1, stamp running page 23 of 880.	Details of Layout consideration w.r.t. location of pump, cyclone separator, Automatic Backwash self-cleaning filter not indicated.	Tentative Location of pump, cyclone separator, Automatic Backwash self-Cleaning filter will be at MIV floor. However, it may change during detailed engineering as per actual site requirement.		
2	9. INSULATION OF HVAC SYSTEM, Sub-section C-1, stamp running page 29 of 880.	Insulation details for cooling water piping missing in the specification.	Details of Insulation for cooling water piping shall be as indicated in table 1 below.		
3	Drawing No. 5602-002-P-E-C-A-13: LAYOUT OF OVERHEAD WATER TANK, stamp running page 854 of 880.	Additional details wrt routing of cooling water piping	Piping from the overhead tank to AHU room will brought above ground level. However, it may be embedded/below ground as per actual site condition, which shall be decided during detailed engineering stage.		
S. No	Surface	Insulation Material	Insulation Form	Thickness (mm)	Finish
v)	Cooling Water Piping	EPS (TF Quality 16 Kg Density)	Pipe section	75	Covered with 500 Gauge Polythene sheet, chicken wire mesh, 12mm thick sand cement plaster and an overall cladding of 24 G GI sheet.