

**3 x 660 MW NTPC NORTH KARANPURA STPP**

Sr. No.	Clause Ref.	Document Ref.	As per Specification	Queries	Clarification
A	<b><u>TECHNICAL QUERIES (ONLY FOR HCSD SYSTEM)</u></b>				
A-1	4.37.00	SUB-SECTION: A-21	Type of pump : Positive displacement, hydraulically actuated <b><u>variable frequency drive</u></b> operated ....	As per Sub Section-A-21 Pumps are driven by only VFD Driven Motor which is generally applicable for Diaphragm Type of Pumps while as per Section IIA-13 the type of Pump is either with VFD Driven Motor or Hydraulic Drive which is applicable for Piston type of Pump. Please note that for Karanpura Project HCSD System will have to be suitable for Combined Slurry of Bottom ash & Fly ash and hence Piston Type Pumps are better than Diaphragm Pump due to it's capability to handle much higher particle size. Hence please confirm that the Type of Pump can be either "Piston Diaphragm type" or Piston Type.	Bidder to comply with the tender specification.
	1.1.8 (x)	SUB-SECTION-IIA-13	Each high concentration slurry disposal pump shall be of horizontal, positive displacement, <b><u>hydraulic drive / VFD for speed variation</u></b> with adequate head and pumping capacity to pump of FA and BA generation of one (1) unit in high concentrated slurry form from mixing tank/retention tank to ash disposal area.		
A-2	10.03.01 to 10.03.25.4	Mandatory Spares - Chapter 8 : Ash Handling system	All the Mandatory spares items specified for HCSD Pumps are only applicable for Piston Diaphragm type, while both type of Pumps (Piston type & Diaphragm type) have been specified as per Clause 1.1.8 (x) Sub Section IIA-13.	We also propose to offer Piston Type of HCSD Slurry Pump for this application and would request you to specify "List of HCSD Pump Mandatory spares applicable for Piston Type of HCSD Slurry Pump" which are Driven by "Hydraulic Drive / Power Pack" and the requirement of Mandatory spares will be totally different from Piston Diaphragm Type of Pump.	Bidder to comply with the tender specification.
A-3	1.1.8 (xii)	SUB-SECTION-IIA-13	Ten (10) lengths seamless steel pipes with fittings for high concentration slurry disposal from HCSD pumps to ash disposal area and garlanding of disposal area. The total length of HCSD pipes shall be 37000m (excluding fittings but including the branch pipes for garlanding of ash dyke).	Please confirm that for all 10 lines, the length of each line (including Garlanding), shall be 3700 Mtrs each for SUPPLY & Erection while for System Design of system Max. Length shall be 4500 Mtrs.	Refer clarifications
A-4	-	Drg. No. 4410-001-POM-A-029 /Rev-A	Range of Concentration is shown as <b>45%</b> to 65%	Please clarify the operating range of concentration for Slurry system. Please confirm that rated flow for HCSD Pump shall be based on Design concentration of 60%.	Refer amendments
	4.01.02.04 (b)	Sub Section A-02 Equipment sizing	Range of Concentration is shown as <b>50%</b> to 65%		

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A-5	1.1.8	SUB-SECTION-IIA-13	Each high concentration slurry disposal pump shall be of horizontal, positive displacement, hydraulic drive/VFD for speed variation with adequate head and <b><u>pumping capacity to pump of FA and BA generation</u></b> of one (1) unit in high concentrated slurry form from mixing tank/retention tank to ash disposal area . The HCSD pumps .....	Please confirm that each set of 2 HCSD Pump shall be capable to Pump Total Ash (F.A. + B.A.) generated for one (1) unit. Please also clarify whether total ash generated shall be "46% of weight of total <b><u>worst coal</u></b> " or " <b><u>40% of weight of total Design Coal</u></b> " fired.	Bidder to comply with the tender specification. Bidder to consider higher of the two.
A-6		Volume-I of BHEL Enquiry : DETAIL TO BE PROVIDED ALONG WITH TECHNO COMMERCIAL PRICE OFFER	Enquiry <b>asks us to submit</b> : "Auxiliary power guarantee for the equipment supplied as per NTPC attachment 10 as applicable for the given scope matrix".	However, we find that Attachment – 10 is not covering the format for Total Auxiliary Power Consumption. Hence we request you to kindly let us have the required format or your advise on above at the earliest.	Bidder to furnish auxiliary power consumption in the relevant attachment.