

Customer BHEL  
 Project 1 X 800 MW TSGENCO KOTHAGUDEM TPS STAGE-VII, PALONCHA  
 Package Condensate Polishing Unit  
 Supplier Wipro Enterprises Pvt. Ltd ( Wipro Water)  
 Technical Specification Ref. PE-TS-410-155A-A001

Our pre-bid queries as below

Sr. No.	Volume	Section	Clause No.	Page No.	Specification Requirement	Clarification	Reasons for Clarification	BHEL's Replies/Clarifications dtd.19.09.2015
1	Volume: II-B	C1	4.0,A,12)	11 of 581	Two (2) nos.(2x100%), Rinse Recirculation pumps, each complete with electrical drive motor and all other accessories as required	According to clause no. 4.0,A,6) page 10 of 581, you have asked to supply pressure reducing valve as Rinse water outlet header of each condensate-polishing unit shall be provided with a pressure reducing valve and orifice plate, suitably designed to enable the water entry to the condenser hot well under all operating condition of condenser. The pressure reducing station shall consist of either a pressure reducing valve (reducing the pressure from design pressure of service vessel to condenser vacuum) or a combination of orifice plates to reduce pressure from design pressure of service vessel to 2 kg/cm2 and a pressure reducing valve from 2 kg/cm2 to condenser vacuum.	We do not understand the requirement of Rinse water recirculation with both ways. Please clarify.	Please Follow Tender Specification.
2	Volume: II-B	C1	D,5)	14 of 581	360 m of minimum 100 NB resin transfer piping confirming to SS 304 Sch 10S (minimum).	In most of the all CPU tenders specify the resin transfer line to be supply with 80NB whereas in this technical specification it is mentioned to consider 100 NB.	Please clarify the requirement of 100 NB resin transfer line size OR is it typo error.	Please Follow Tender Specification.
3	Volume: II-B	C1	E,17)	16 of 581	All the transmitters (Pressure,Temperature,Flow, Level , Differential Pressure etc.), which are used in system for interlock & protection shall be redundant. The same shall be indicated in P&ID by successful bidder after award of contract.	-	We request you to please clarify interlock & protection philosophy to be adopted for this project.	Please Follow Tender Specification.
4	Volume: II-B	C1	5.2	56 of 581	Resins for each type of exchangers - 10% of total quantity	According to clause no. 4.0,A,16) page 11 of 581, you have asked to supply Five (5) complete charges of resins (cation + anion + inert (if applicable)) along with 1 charge for resin makeup hopper shall be provided.	We shall consider 10% of installed resin quantity as Mandatory Spare. Please confirm about our understanding.	Tender Specification requirement is clear in this regard.
5	Volume: II-B	C1	2.02.05	61 of 581	Influent water quality as indicated in the above clauses is minimum only. Bidder to check the same and higher values, if felt by them, shall be considered in the design so as to meet the specified effluent quality.	We confirm to design CPU system considering Influent water quality specified in technical specification	We request you to please indicate maximum values of influent parameters to be consider for designing of CPU system.	Please Follow Tender Specification.
6	Volume: II-B	C1	2.02.06	61 of 581	The bed cross section shall be such that the velocity of condensate through it, shall not exceed 1.75 meters/min at the design flow rate. Internal diameter of the service vessels (excluding the rubber lining) of spherical type shall be selected meeting the above mentioned velocity criteria.	According to chapter CONDENSATE POLISHING SYSTEM THIS IS A PART OF TECHNICAL SPECIFICATION NO.-PE-TS-410-155A-A001 (CONT.) clause 5.11.00 on page 279 of 581, The bed cross section shall be such that the average velocity of condensate through it does not exceed 120 m/hour at the design flow rate.	Can we consider average velocity at bed section as 120 m/hr since it is allowed as per cl. 5.11.00 on page 279 of 581. Please clarify.	Refer amendments.
7	Volume: II-B	C1	2.1 (x)	64 of 581	Pressure dampener One number per pump	-	Pressure Dampener is not applicable for Rinse Recirculation Pumps, Also we do not understand the requirement of Pressure Dampener in Rinse Recirculation Pumps. Please clarify about its requirement for all pumps in cluding Rinse Recirculation Pumps.	Refer amendments.

8	Volume: II-B	C1	P&ID Sheet 2 of 2	73 of 581	Specified as Typical Unit-1 & 2	-	We presume this CPU tender enquiry for Unit-1 only. Please confirm about our understanding.	Refer amendments.
9	Volume: II-B	C1	P&ID Sheet 2 of 2	73 of 581	Condensate P&ID ref. PE-DG-410-100-N106, specified on inlet & outlet condensate header	-	We have not received Condensate P&ID ref. PE-DG-410-100-N106, which you have specified at condensate inlet & outlet header. Please Furnish	Please Follow Tender Specification.
10	Volume: II-B	C1	P&ID Sheet 2 of 2	73 of 581	In common Inlet condensate header ( top at left hand side) you have shown 3 nos. of Temperature Transmitters in series.	-	We have not understood the requirement OR is it typo error. Please clarify.	Please Follow Tender Specification.
11	Volume: II-B	C1	P&ID Sheet 2 of 2	73 of 581	In note sr. no. 19 Limit switches to be provided for all pumps.	-	We have not understood the requirement OR is it typo error. Please clarify.	The suction & discharge valves of pumps shall be provided with open & close limit switches for auto operation.
12	Volume: II-B	C1	P&ID Sheet 2 of 2	74 of 581	We have shown 2 nos of pH analysers at Effluent Disposal pump common discharge.	-	We have not understood the requirement OR is it typo error. Please clarify.	Please Follow Tender Specification.
13	Volume: II-B	C1	P&ID Sheet 2 of 2	74 of 581	You have shown Level transmitter in each N.Pit compartment, apart from this you have also shown 2 nos of Level transmitter in Effluent Disposal Pump suction compartment.	-	We have not understood the requirement OR is it typo error. Please clarify.	Please Follow Tender Specification.
14	Volume: II-B	C1		258 of 581	-	Cl. 2.00.00 & 3.00.00 specifications are missing	If available then the please furnish OR is it typo error. Please clarify.	Refer amendments.
15	Volume: II-B	C1	4.04.00,i	258 of 581	The bidder shall include with the plant adequate resins for all the condensate polisher service vessels. In addition separate charge of resin shall also be included for using the resins during commissioning stage of unit. Therefore, total number of charges supplied by bidder shall include total resin charges for TG units plus one spare charge plus commissioning charge plus one charge to be stored in additional regenerated resin storage vessel.	-	We are considering total 6 (Six) nos. of Condensate Polishing grade resin charges as specified 4.0,A,16) on page 11 of 581. Please confirm us about our understanding.	Refer amendments.
16	Volume: II-B	C1	4.04.00,iii	259 of 581	Cation-anion resin ratio shall be 2.0 parts Cation to 1.0 part anion by volume.	-	We need to consider Cation to Anion resin ration from 1.5 :1 to 2 :1. Can we consider the same or not?	Please Follow Tender Specification.
17	Volume: II-B	C1	4.04.00,vi	259 of 581	Anion resins shall be supplied in hydroxide form.	We confirm to consider Anion resin in hydroxide form with total wet volume ion exchange capacity as 0.8 eq/l. However due to its unstable form, we recommend to supply Anion Resin in Sulphate form. Volume of Anion resin shall be supplied considering Hydroxide form.	Can we supply anion resin in sulphate form or not?	Please Follow Tender Specification.
18	Volume: II-B	C1	A,B,C,D,E	319 to 331 of 581	Specification related supercritical drum, furnace, economiser, residential colony, coal handling, ash handling	-	We presume scope of supply & services covered under this referred clause is not in our scope. Please confirm about our understanding.	The scope of supply shall be as per Section-C, Data sheets ,P&ID etc. of tender specification. However the specification provided in Section-D are for general design purpose and any scope of supply applicable for Condensate polishing unit shall be supplied by bidder without any commercial & delivery implication to BHEL.