

## Corrigendum-01

**Design, Construction, Supply, Erection, Testing & Commissioning of 300KLD STP (MBR Technology) at GMC Konni  
(Tender no. HITES/IDS/KONNI-PI-STP/23/07 Dated: 03/05/2023)**

**Reply to Prebid queries**

No	Tender Reference	Queries	Reply
1	Volume I Section III Page 31	<p>At point no.30 It is mentioned that "The Contractor shall have to test each equipment used for the plant for at least 72 hours continuous running with designed load and to the full satisfaction of HITES Engineer in charge.". A few paragraphs below, it is stated that "The Contractor at his own expense shall start and commission the plant and ensure that it is giving satisfactory service and desired characteristics of the treated effluent, for two months before handing over the plant to the Owner.</p> <p>"We understand that the 72 hours mentioned is only for Hites verification and approval; and thereafter the contractor shall operate for two months without invoicing. This makes the total O&amp;M period 36+2months, and the PAC is inclusive of O&amp;M for 38months as above. Please confirm if these assumptions are correct.</p>	<p>The Contractor shall have to test each equipment used for the plant for at least 72 hours continuous running with designed load and to the full satisfaction of HITES Engineer in charge. Further the bidder has to do the operation &amp; maintenance for three years Operation &amp; Maintenance during the DLP of the STP after handing over of plant to Client / HITES after statutory approvals / clearances.</p> <p>Also please refer Corrigendum-02</p>
2	Volume II SI no. 19 Page 80	<p>Table, SI No. 1, Mechanical Engineer (Graduate Engineer with 2years' experience or diploma holder with 5 years' experience in operation and maintenance of STP) is required for O&amp;M.</p> <p>Generally, the O&amp;M staff are ITI Plumbers/Electricians, and people who are overqualified for the job may not bring the desired continuous results due to attrition.</p>	Please Refer Corrigendum-02
3	Volume I Section III Page 30	<p>Item 12, Treated Water tank sizing.</p> <p>We assume that the transfer system including pump and piping from this tank shall not be in our scope since pump spec / requirements are not clear to us right now. Also, the piping for the treated water reservoirs outside STP can't be considered in scope due to such limitations. Please confirm.</p>	Treated water pump and the pump header is included in the scope. The main supply ring main will be in the client's scope.
4	Volume I Section III Page 30	<p>Item 18, Odour Control to be provided.</p> <p>Does this mean enclosing the STP area and then treat the air changes through odour control mechanism?</p>	Odour control not required.
5	Volume I NIT Page 15	<p>1.6.iv, The Contractor has to interconnect the existing manhole /sewer line of hospital block to the new STP Collection Tank.</p> <p>There is some lack of clarity in the interconnection of septic tanks and extension of line to STP. Are these to be done such that the inlet to septic tanks is taken or outlet from these tanks are taken to STP? Please clarify.</p>	Interconnection from last manhole to STP is in the scope of contractor.

6	General	Is there a canteen? In such case will there be in situ Oiltraps so that Oil Separation is possible? Since Soil and Sewer lines are combined before STP, further oilseparation is not possible.	Only one canteen is available in the building, A 50 litre oil and grease trap is provided at the outlet of this canteen.
7	General	Is there a Laundry? In such case is there a primary settling system separately?	Laundry is available in the campus.
8	General	As per the tender, EQT is underground tank which shall have a capacity for holding 8 hrs of normal Flow rate. But other STP tanks ANOXIC TANK , AERATION TANK , MBR TANK , SLUDGE HOLDING TANK , DIP TANK & TREATED WATER TANK – can we go for MS with epoxy painting, since nothing is mentioned in tender.	RCC tanks shall be considered for the works. The drawings of all RCC structures, including structural drawings shall be submitted by the agency for approval.
9	General	Please specify the Invert level of the Last Manhole.	Invert level of manhole is nearly 195.70 m.
10	General	Please specify the Distance between Last MH to STP	Approximately 50 meters to 60 meters
11	General	Treated water to end use point under client scope – Please clarify the Distance of Usage points and Height to design the Treated water transfer pump.	Treated water pump and the pump header is included in the scope. The main supply ring main will be in the client's scope. The treated water shall be used for : 1) Flushing at hospital block. Height of the building : is nearly 35 mtrs and horizontal distance is 350 meters. 2) Landscaping lines. 3) HVAC Cooling tower : refilling water.
12	General	Excess treated water to nearest drain – Please specify the distance – as it is not available in the Tender.	Natural drains are not available.
13	General	Is O & M for 3 years being must or optional. Page 31/ 84 says if client interested.	The successful bidder has to do 3 (three) years Operation & Maintenance during the DLP of the STP after handing over of plant to Client / HITES after statutory approvals / clearances.
14	Volume III List of Approved Makes Page No 83	List of Makes S . No 26 – MBR Module is mentioned and list of modules is given. But at Page No 84, S No 51 – MBR Membranes List also mentioned. Please clarify.	Revised make list is attached.
15	Volume III List of Approved Makes	We are suggesting US Based Memstar MBR Membranes and Memcor™ Mempo™ (Dupont) membranes. If possible, the above makes may be added in the approved makes list.	Revised make list is attached.
16	General	Can we go for filter press for sludge handling? As per approved vendor makes, only centrifuge given .	Yes, Filter press can be used for sludge handling at the scope of works includes design and built.
17	General	Since the scope of contract is Design, Supply Erection, commissioning and 3 years O&M with DLP, We are suggesting Filter Press for sludge handling operation. Suggest adding Filter press Supply vendors in the vendor list. We are suggesting Cleartek Filter Press for the same.	Filter press sludge handling system can be used in the design. The revised make list is attached.
18	Volume I Clause 1.4.1	For Paragraph 1.4 Eligibility Criteria in (b). Kindly give exemption in "Similar Work" of WTP/RO/Desalination Plant. As we have expertise in it and we are try to expand and evolve into Waste Water Treatment Segment as well.	No change. Terms & conditions of e-tender prevail
19	Volume I Clause 1.4.1	We are try to bid with JV Partner and we want individual criteria for JV Partner as we want to bid as Lead Bidder in JV.	No change. Terms & conditions of e-tender prevail

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**Note:**

- (i) The above reply to pre-bid queries issued as Corrigendum-01 shall form part of the tender.**
- (ii) All bidders are requested to upload this Corrigendum-01 duly signed & sealed by their authorised representative along with the online bid.**
- (iii) All other terms & conditions of the tender shall remain the same**

**For HITES**  
**s/d**  
**Authorised Representative**

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**LIST OF APPROVED MAKES (REVISED)**

<b>SEWAGE TREATMENT PLANT</b>		
1.	Air Blowers	Beta/ Everest/ Kulkarni / TMVT/Kay/A1
2.	Air Diffussion System	Airfin/Usha Ruba/Rehau
3.	Air Vent Valve	Oven trop (Germany) / CIM / Rapid Control/ Castle
4.	Anti-Corrosive Tape for Pipe protection	Pypcoat / Marphalt / Cotek/STP
5.	Ball Valve	Zoloto/Honeywell/ RB/ Castle/ Audco/ Leader/ KSB/Zoloto/IVC
6.	Bar Screen	KSP/AWMS/PAMM or equivalent
7.	Blowers	Kay / Airvac /Everest/ Kirloskar/ ABB/ Crompton/ Havells
8.	Butterfly valves	Zoloto/Audco/Kirloskar/AIP/Advance/ Castle
9.	Centrifuge	Apollo/United/B.A Engineering
10.	Check Valve – Dual Plate	Advance/Honeywell/Audco/Zoloto/ Castle
11.	Check Valve – Wafer Type	Advance/Danfoss/Zoloto/Honeywell/ Castle
12.	Chemical Cleaning Pump	WILO / DP/ Grundfos/ Xylem
13.	Chemical Cleaning Tank	Polycon / Sintex/ Vectus
14.	Chemical Dosing system	Asia LMI/ Seiko/ E – Dose/ Grundfoss/Akash/Eql
15.	Dosing Pump	Grundfos / Asia LMI / E-dose / Prominent/ Akash/ Eql
16.	Electrical Panel	L&T/ ABB / Schneider/ Siemens/ Megawin/ Unitech Electrical/ Eaton or their authorized System Integrator/ Channel Partner
17.	Epoxy Paint & Paint	Akzonobel DULUX/ Nerolac / Cico/ Sika / BASF / Berger / Pidilite/ STP Ltd./ Fosroc/ MC / Bauchemie/ Jotun / Asian Paints/ Jenson & Nicholson / Nippon
18.	F.R.P Vessel	Pentair / Aventura / Thermax/ Ion Exchange
19.	Flow Meters & Flow Transmitters (Digital)	Aster / VATS / Honeywell/ Krohne Marshall/ Forbes Thermax/ Omicron/ABB

20.	Flow Rota Meter for Suction Pump	UKL / Aster /Scientific
21.	Foot Valve	Kirloskar/ Kalpana / Leader/ BDK / Sant/ Zoloto/ Castle
22.	G.I. fittings (malleable cast iron)	RR/Unik/Zoloto/K.S./Sun/ Swastik/Jainsons /DRP
23.	G.I. Pipes/ M.S. Pipe	Jindal / Tata / Prakash Surya/ SAIL/ Swastik/ APL-Apollo
24.	High Pressure Feed Pump	WILO / DP/Grundfos/ Xylem
25.	Level Controller/ Level Indicator/ Level Switch	Aster/Cirrus India/Rockwell Automation/ Minilec/ L&T/ Omicron/Vguard/Pune
26.	MBR Module	GE/ Siemens/ Mitsubishi/ Ion Exchange/ Koch/ Thermax / memstar
27.	MBR Permeate Suction Pump	Wilo / DP/Grundfos/ Xylem/ Kirloskar/Crompton/Johnson
28.	Media	Ion Exchange/ Thermax/ Cooldeck/ Usha Ruba/ MM Aqua/ Pharmatech
29.	Motor	Siemens/ Crompton & Greaves/ ABB/ Kirloskar/ Bharat Bijlee
30.	MSEP Vessel	Ion Exchange/ Thermax or equivalent as per manufacturer's standard
31.	Multiport Valve	Thermax/ Pentair/ ORG/ Astral/ Praher Aquafiltration
32.	Non Return Valve	Zoloto/Honeywell/ RB/ Castle/ Audco/ Danfoss/ Leader/ KSB/ IVCExpert
33.	PH Meter online	VATS / Hanna/Aster/Digital/ Honeywell/ Thermax/ Krohne/ Forbes Marshall/ Omicron / Microset / Nivelco /Jumo/ Rosemount – emerson
34.	Pipe clamp & supports	Chilly/Euroclamp/Kanwal/ HIRA-Walraven
35.	PLC / HMI	Schneider / Allenbradley /Mitsubishi/ Minilec/ ABB/ Siemens/ L&T/Delta
36.	Pressure Gauges	Waree / H Guru / Fiebig/ HD/ Omicron
37.	Pressure Switch	Danfoss / Indfoss / Switzer/ Omicron
38.	Pump Sets i/c Water transfer and sludge disposal/ transfer pump	WILO / DP/ Grundfos/ Xylem/ KSB/ Kirloskar
39.	Resin	Thermax / Ion Exchange/ Auchtel
40.	Semi Auto Fine Screen	Toro/ KSP / AWMS/ PAMM
41.	Sewage Feed pump/ Drainage / Submersible Pumps	WILO / DP/ Grundfos/ Xylem
42.	Strainers	Emerald / Zoloto / Maharaja/ Castle/ Audco/ L&T/ Sant/ Leader/ Rapid cool
43.	Transfer Pumps	WILO / DP/Grundfos/ Xylem/ KSB/ Kirloskar
44.	Tube Settler/ Lamella plates	Thermax/ Ion Exchange/ Sema
45.	UV Systems	Alpha / Creative UV/ Pentair/Eureka Forbes/ Philips/ Ruks/Hitech UV
46.	Variable Frequency Drives	Danfoss/Schneider/Siemens/ABB/ L&T
47.	Vibration Eliminator / Anti- Vibration Mounting pads	Resistoflex / Kanwal /Banco/Dunlop/ Easyflex/ Hira-Walraven

48.	Water Meter	Capstan / Kranti/ Anand/ Kant/ Aristo/
49.	Screw Pump	Verito / Rotomac/ Hydro Prokav
50.	Bubble Diffuser	SCOGEN/TECPRO or Equivalent
51.	Vaccum Pressure guage	Switzer / Feibig/HD
52.	Solenoid Valve / Box	IEI/Honey well / Danfoss / ABB
53.	Online Turbidity meter	Microset / Nivelco / Forbes Marshal/ Nivelco /Jumo/Rosemount – emerson
54.	Online ORP sensor	Microset / Nivelco / Forbes Marshal/ Nivelco /Jumo/Rosemount – emerson
55.	Panel Enclosure	Rittal / BCH / Eql
56.	Switch gear	Schneider / L&T/Delta
57.	Cables	Gloster / Havells / Finolex / Polycab
58.	uPVC / CPVC Pipes	Finolex/ Supreme / Astral / Price / Supreme
59.	Filter press	Delhi Filter Press and Diffusers , Hydro press industries , Energy Equipments, Cleartek , Welcome Engineers