

Tender No.: **T-2550959-2023**

Tender Title : **Design, Supply, Install and Commission a Centralized Odor Control System (OCU) at Ibra STP**

### **SUMMARY OF SCOPE FOR WORK:**

This new tender proposal covers the following deliverables in conjunction with Scope of Work/Technical Specifications of the tender document.

- 2.1 H<sub>2</sub>S inlet design considerations for the Balancing Tank and Mechanical Screen Building.
- 2.2 H<sub>2</sub>S Inlet Design: 100ppm (Dynamic) the contractor shall perform actual measurements.
- 2.3 The minimum air exchange for the balancing tank should be around 12 air change per hour.
- 2.4 Carry out the entire associated field testing for proposed OCU system. The Contractor shall facilitate his own equipment for the testing, and it is important that the contractor to perform field tests stating the actual flow rates and velocities at key sample locations on the area of installing the proposed system. The headspace volumes will be measured, and the required design flow rates will be calculated for each location.
- 2.5 The contractor shall be responsible to provide training on the OCU system.
- 2.6 Provide complete cover for the Balancing Tank with full inlet channel, fully pretreatment from screen to distribution box and Oil treatment system considering the require opening for the air exchange. The cover shall be designed in a way to avoid working on top of it.
- 2.7 The contractor shall be responsible to connect the Balancing Tank with full inlet channel, fully pretreatment from screen to distribution box, tanker discharge tank and Oil treatment system considering the require opening for the air exchange.
- 2.8 The contractor responsible to connect full OCU system to RTU and SCADA for monitoring and control the system.
- 2.9 Provide different dampers from tanks to control air require from each tank.
- 2.10 The contractor shall be designed cover in a way to be removable cover of primary treatment (Grit removal system) for cleaning purpose.
- 2.11 The contractor shall be providing sensor for high level water in balancing tank to stop system avoiding water going to the system.
- 2.12 The contractor shall be responsible to provide full shade for proposed system.
- 2.13 The Contractor shall study the proper location inside the STP for the proposed OCS.
- 2.14 The Contractor shall guarantee the following parameters of the OCS:
- 2.15 Outlet H<sub>2</sub>S = <0.050ppm

- 2.16 Online measurement of H<sub>2</sub>S gas at outlet for a normal measurement of 1.50ppm as available in market with alarms while performance guarantee measurement of 0.05 ppm will be ensured by taking regular sampling once a month for 1 year O&M.
- 2.17 Contained all H<sub>2</sub>S emissions from the abovementioned locations and properly treated them through the OCS ensuring no obnoxious or foul odor occurs in the STP.
- 2.18 Provide complete connection works from the extraction chambers, OCS unit, and existing facilities comprising of piping, electrical and mechanical works.
- 2.19 Provide complete GRP sealed cover for the Balancing Tank considering the required inlet/outlet openings for the air exchange. The cover shall be designed in a dome shape to avoid walking on top of it.
- 2.20 Provide removable GRP panel covers for Mechanical Screen if found required.
- 2.21 Provide all connections to the existing facilities for water, electrical and/or other utilities necessary for the OCS operation.
- 2.22 Provide an online H<sub>2</sub>S sensor for the inlet and outlet with digital display unit. Inlet sensor should read within the range 0-200 ppm and outlet should read in the range of 0-20 ppm.
- 2.23 H<sub>2</sub>S transmitter shall be interlinked with the Audible and Light Warning Devices.
- 2.24 The wastewater residue produced from Odor Control Unit will be treated suitably either by dilution with existing Incoming Sewage if it will not alter or affect the performance of existing STP or by neutralizing before discharging into the existing STP inlet channel.
- 2.25 All the residue solid waste or exhausted activated carbon will be disposed of from the STP site in a safe and environmentally acceptable manner meeting the Disposal regulations in Oman through the competent authorities is under the scope of bidder during the O&M period.
- 2.26 If the Odour Treatment process offered by the bidder requires softened water, then it is bidder's responsibility to incorporate the same in their offer.

If the Odour treatment process offered by the bidder requires TE, then bidders should use TE water produced from the STP and accordingly, bidders shall consider in their offer. In case, TE quality is not appropriate, the bidder shall consider alternative water source at his own expense