

Ref.:

Date: 06<sup>th</sup> July 2023

To,  
The Team Leader,  
Shah Technical Consultants  
Kanpur

**Project:** “Development of Sewerage Treatment Plants on Hybrid Annuity PPP basis at Kanpur, UP”.  
**Subject:** Site visit report of 30 MLD STP and associated IPS & 130 MLD STP at Jajmau

Dear Sir,

A joint inspection visit along with UPJN team was made at 30 MLD STP at Pankha on 04.07.2023 and 130 MLD STP at Jajmau on 05.07.2023, to access the progress of instrumentation works at site. The following observations were conveyed to the concessionaire:

20 MLD Sundar Nagar IPS: -

- The Differential level transmitter at the screens has been installed below the High Flood level, consequently, the sensors are submerged as evident from the pictures below:



- The concessionaire has been instructed several times during the site visits, but still the Canopy for weather protection of field instruments has not yet been provided. The instruments have been covered with polythene.



- The earth pits have collapsed due to flooding and the cable have drowned in water in the cable pull pits. The concessionaire has been instructed to drain the water using the portable drain pumps and rectify the defects in the earthing pit.



- The concessionaire has not provided the Air conditioner in the PLC Control Room at the IPSs. The concessionaire has been instructed to provide the same. The representative of concessionaire Mr. Manobendra Ray has agreed to provide the same at the earliest.

- The concessionaire has not maintained the required distances for installation of flow meter at the common discharge of pumps as per the manufacturer recommendations, which might result in inaccurate flow values at later stage.



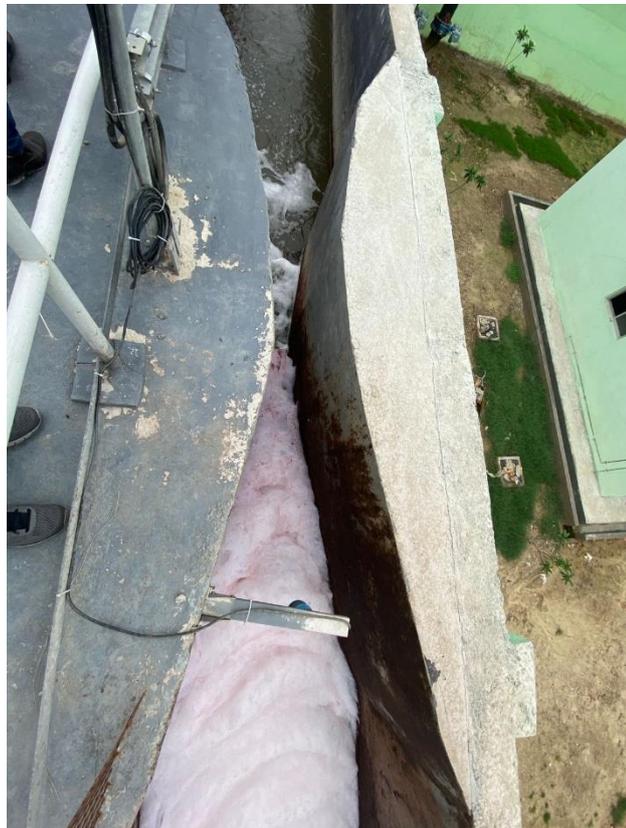
- PLC panel has been raised by 500 mm above the finished floor level, but the cable termination below the panel has not yet been covered.



- The batteries for UPS system found drained and have not been charged. The concessionaire has been instructed to keep the batteries charged and maintained in order to run the control system efficiently without any interruptions in the operation and control of the pumping stations.
- 1 no. lighting Pole found tilted it seems the erection work is not done properly.
- Pressure switch and pressure transmitters installation at the pump delivery has not yet been done.
- Pressure transmitters have not been installed at the pump discharge, However, the concessionaire has been asked to interlock the pumps for high pressure also utilizing the installed pressure transmitter feature after installation.
- The concessionaire has not provided any cable route markers for identification of cables in the plant. The concessionaire has been instructed to provide the cable route markers for all the buried cables in the pump house.

### 30 MLD STP Pankha: -

- The concessionaire has not provided any cable route markers for identification of cables in the plant. The concessionaire has been instructed to provide the cable route markers for all the buried cables in the plant.
- The foaming in the Parshall flume is affecting the flow measurement at the plant inlet. The concessionaire has been instructed to provide remedial measures to arrest the foaming at the units affecting the field instrument measurements. The concessionaire has been advised to provide de-foaming agent dosing at the inlet to the plant and affected units.



- The Pressure transmitters installed at the pumping station need to be calibrated as erratic readings of pressure have been observed during visit.
- The pressure gauges installed at the chlorinators are not functioning properly and need to be attended for rectification. Further the leakage of glycerin is observed in some of the pressure gauges.



- The On-line Chlorine Analyzer does not show the correct residual chlorine values. The values were also checked using reagent but the values do not match. The analyzer needs to be calibrated.



- The SCADA screens and logics developed were also checked during the visit and following observations were conveyed:
  - For identification of plant equipment in LOCAL mode, the symbolic representation along with the TEXT shall be displayed on each screen.

- The mechanical screen mode of operation, whether Timer mode or Differential level mode shall be displayed clearly on the Screen.
- Pump status like under “Maintenance” or “Out of order” shall be displayed on the screen in yellow colour, while drive unavailable to operate.
- Tag nos. for all the field instruments shall be mentioned against each instrument in the SCADA screen.
- All the equipment, valves and drives including Bypass gate should always be in remote mode and operated from the SCADA system unless in case of any failure.
- DG sets running hours need to be recorded & shown in SCADA screens.
- The TEXT and background of all the parameters shall be such that the values are clearly visible.
- The O&M manuals for all the plant equipment shall be available and a designated TAB for the purpose shall be provided on the SCADA screen.
- The communication healthy/failure status and alarm shall be verified in the SCADA system.
- The overall plant periodic and daily reports in the excel format shall be developed and the same shall be generated through SCADA on daily and periodical basis.
- The RTOLMS shall provide all the details as stipulated in the Concessionaire Agreement Schedule 11, Section G 5.5.

25 MLD ICI Nalla IPS: -

- The Pressure transmitters installed at the pumping station need to be calibrated as erratic readings of pressure have been observed during visit.
- Pressure switch installed at the individual pump delivery are shall be checked for STOP command at shutoff head of the pump as per the Operation and Control Philosophy.
- The concessionaire has not provided any cable route markers for identification of cables in the plant. The concessionaire has been instructed to provide the cable route markers for all the buried cables in the pump house.
- The earth pits have collapsed due to flooding and the cable have drowned in water in the cable pull pits. The concessionaire has been instructed to drain the water using the portable drain pumps.

130 MLD STP JAJMAU: -

- No instrumentation activities being carried out at the plant.

Regards,

Prasoon Bhardwaj  
Sr. Instrumentation Engineer,  
STC, Kanpur