

Report on visit to the STP, Zirakpur for treatment of sewage of Zirakpur Town and its adjoining areas on 25.5.2019 by the Executive Committee constituted by the Hon'ble National Green Tribunal vide order dated 7.8.2018 in O.A. no.139-139 of 2016 in the matter of "Stench Grips Mansa's Sacred Ghaggar River (Suo-Moto case)

The following were present during the visit:-

Sr. No.	Name and Designation
1.	Dr. Babu Ram, Former Member Secretary, PPCB now as Member of the Executive Committee
2.	Ms. Kanwaldeep Kaur, Assistant Environment Engineer, Punjab Pollution Control Board, SAS Nagar

1.0 Visit to the STP, Zirakpur:

Zirakpur, is one of the towns falling in the catchment area of river Ghaggar. Therefore, for the treatment of sewage of the town, Punjab Water Supply and Sewerage Board installed STP based on Sequencing Batch Reactor (SBR) Technology in the year 2013. STP Zirakpur was visited by the team as mentioned above on 25.5.2019 and the report is submitted as under:

The treatment capacity of STP is about 17.3 MLD. The components of the STP are as under: -

1. Collection tank for receiving raw sewage
2. Screen chamber
3. Grit chamber
4. Selector Zone
5. SBR System (Two tanks in series)
6. Chlorine dosing tank
7. Final disposal into sewer

During visit, it was observed that the STP was in operation. However, some other observations relating to the operation of STP are mentioned as under:

2.0 Observations:

1. Though, both the screen chamber and grit chamber were in operation but the effluent at the outlet of these components was found containing lot of solid particles (**shown in Plate-I**) which were quite visible and these were further entering into the system.

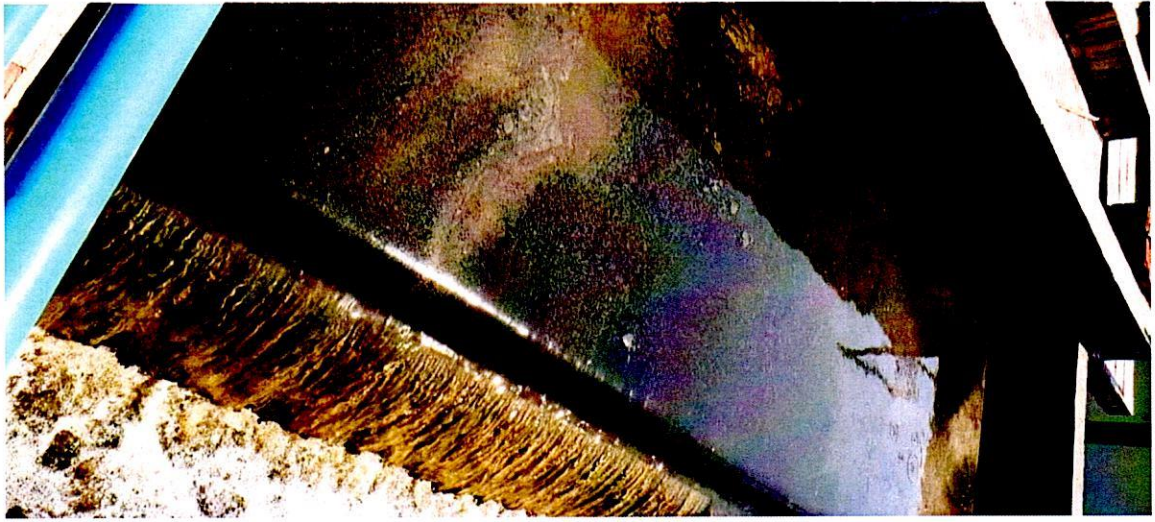


Plate-I: Effluent after screening and grit chamber containing lot of solid particles.

2. The physical appearance of the effluent, which was in aeration mode in SBR tank, indicated that the aerated effluent was black in colour (**shown in Plate-2**) which indicated that the concentration of biomass in the aeration tank may be poor. During visit, Sh. Pradeep Singh, the chemist and incharge of STP informed that the STP was under repair and maintenance for 15 days and it has recently been restarted just 10 days ago and it will take about 10 days more for its stabilization.



Plate-2: Effluent in aeration chamber black in colour

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3. No chlorination was being added in the chlorine dosing tank, as such, the bacterial contamination in terms of fecal coliform may be very high in the final treated effluent.
4. The physical appearance of the effluent at the final outlet of ETP indicates that the quality of effluent was turbid (**shown in Plate-3**) which cannot be expected from such treatment system. It was quite possible that the final treated effluent was not meeting with the prescribed standards.
5. The representative of the company, operating the treatment plant informed that sometime a layer of oil & grease is observed in the collection chamber and it affects the performance of STP.

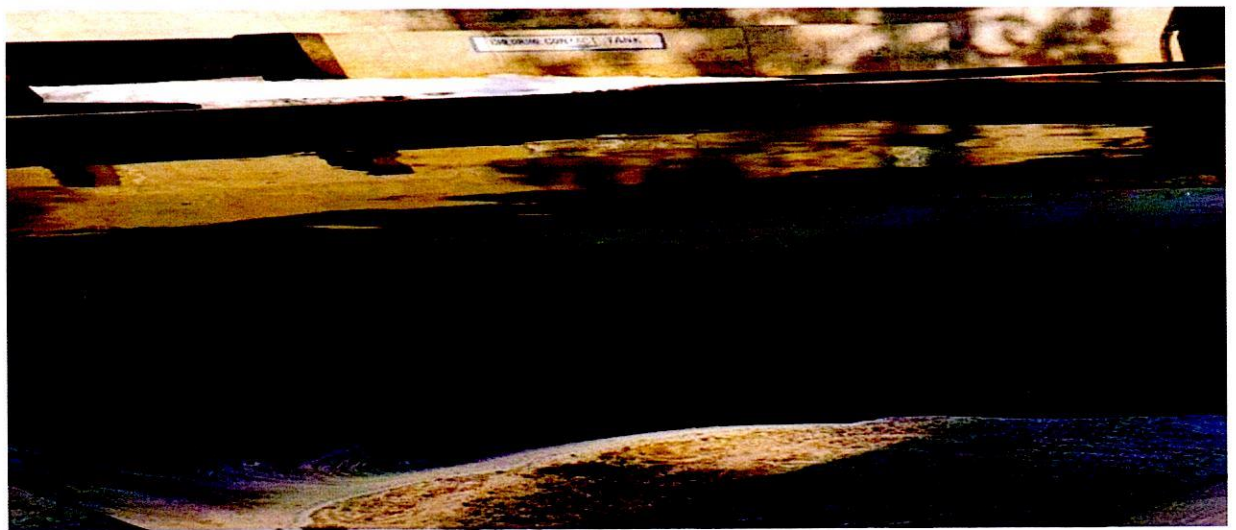


Plate-3: Turbidity in the final treated effluent

3.0 Recommendations:

In view of the above observations, it is recommended as under:

- 1) The officials of PWSSB shall intimate to PPCB at its office at Mohali about the occurrence of the oil and grease in the collection chamber, at any time. PPCB shall immediately collect the effluent sample and in case concentration of oil and grease is more than the prescribed limits, both the agencies i.e. PPCB and PWSSB shall jointly visit the area and identify the industries/processing units responsible for discharge of oil and grease into ETP system. PPCB shall take legal action under the provisions of the Water Act 1974 against the violating industries/processing units.
- 2) Since the chlorine dosing system was not being operated deliberately by the contractor, therefore, PWSSB shall impose penalty of suitable amount on the contractor as per the terms and conditions of the agreement made with the contractor.
- 3) PWSSB shall issue necessary instructions to the contractor to whom the contract has been given for the operation of the ETP to ensure the

operation of chlorine dosing system at all the times so as to reduce the bacterial contamination in the treated waste water.

- 4) PWSSB shall direct the contractor, operating the treatment plant, to operate the same effectively and efficiently so as to meet with the standards prescribed by the Board.
- 5) PPCB shall collect the effluent samples of the STP at its inlet and outlet after 15 days to assess the effectiveness of the treatment system.

The necessary report on the above observations/recommendations be submitted to the executive committee by PPCB and PWSSB within one month.


(Dr. Babu Ram) ^{30/10/15}
Member,
Executive Committee


Chairman, Executive Committee