



ZERO DISCHARGE

PLANT- 350 KLD

Case Study ~ SRF, Chennai

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BACKGROUND

Sriram Fibres is one of the reputed industries situated in north Chennai in the midst of industries. Water being a scarce material in Chennai and monsoon failures makes the situation worst. Secondly the land needed for disposing the quantum of water treated will be huge. Both the above reasons justify the need of Recycling solutions, which is also suggested by the Tamil Nadu Pollution Control Board.

TECHNOLOGY

SRF is basically a yarn manufacturing industry, and hence the COD of the effluent is on the higher side. The existing ETP consist only up to pre tertiary treatment. Based on the design submitted to SRF, Aqua Designs was selected for implementing treated water recycling using membrane Technology. Based on the treated effluent characteristics given by SRF, Aqua designs suggested a system which comprises of High rate reactivated clarifier followed by Ultra filtration and then finally by Reverse Osmosis.

The RO consist of three stages in order to recover the maximum quantity of water. Reactivated clarifiers are given two stages in order to take care of the silica. The final Reject which consists of 2 m³ / hr is highly saline and hence a mechanical evaporator with latest technology incorporated, was installed and commissioned successfully. The salts can be collected as slurry and stored for further disposal as per the PCB norms.



APPLICATION

Zero Discharge Plant to make up cooling tower water.



ADVANTAGES

- Zero discharge of effluent

- Total water management. 100% reuse of recycled water

- Highly purified water quality

- Less chemical consumption

- Eco friendly technology.

CONCLUSION

The plant was successfully commissioned up to the Client satisfaction and it is being maintained by us.