

14,000 m³/day Sewerage Treatment Plant

Salori Allahabad for Uttar Pradesh Jal Nigam (UPJN)

- Sewerage Treatment Plant Commissioned under the National Mission for Clean Ganga (NMCG)-

Advantage of Our Solution

Meeting Customers' Needs with Cutting-Edge Knowledge, Experience and Expertise

- Using proven state-of-the-art Sequential Batch Reactor (SBR) technology for the 14,000 m³/day sewerage treatment plant project in Salori Allahabad to produce high quality treated water and discharge the water into the Ganges
- Conforming to the latest norms of the Central Pollution Control Board (CPCB)

Project Overview

Client	UPJN, Allahabad with the joint efforts of NMCG
Location	Salori Allahabad, India
Start-up	November 2014
Capacity	Sewerage treatment: 14,000 m ³ /day
Plant Description	<p>The World Bank provides assistance to the National Ganga River Basin Authority (NGRBA) for abatement of pollution of the Ganges, as well as technical and financial support to the Government of India.</p> <p>The 14,000 m³/day sewerage treatment plant project in Salori Allahabad is the project supported by the World Bank.</p> <p>Design Build, Operate and Maintain (DBOM) and transfer of sewerage treatment plant including main pumping station, effluent pumping station, appurtenant structures in Salori Allahabad, Uttar Pradesh.</p>



Customer Overview

NMCG Government Body and UPJN State Body

NMCG is an independent body of the Government of India, which has been constituted to take measures for prevention, control and abatement of environmental pollution in the Ganges and to ensure continuous adequate flow of water so as to rejuvenate the Ganges.

Meanwhile, UPJN is the state body in charge of executing the projects related to water and waste water in the state of Uttar Pradesh. Founded in 1975, UPJN enforces and implements the mandate of NMCG to rejuvenate the Ganges as one of its activities with the aims of developing and regulating water supply and sewerage services in the whole state except the cantonment areas.

Current Issues in India

Majority of Waste Water Discharged without Treatment

India with the world's second largest population is advancing rapidly.

However, a large part of the population does not have access to drinking water and proper sanitation because the vast majority of waste water is discharged without treatment into water resources, such as rivers, lakes and groundwater.

The rejuvenation of the Ganges under the aegis of NMCG is one such platform where joint efforts are made by the central and state governments, urban local bodies and private sectors to create a synergy for the success of the 'Clean India' Initiative.

The 14,000m³/day sewerage treatment plant in Salori Allahabad is one of the projects commissioned under this initiative and supported by the World Bank.

Customer's Requirements

Meeting the Customers' Requirements

- Meeting the requirements from UPJN to design, provide, construct, install and commission the 14,000 m³/day sewerage treatment plant with pumping station on a turnkey basis using the modern technology on the NMCG platform
- Satisfying the required treated water quality, BOD (*1) < 10 mg/L; TSS (*2) < 10 mg/L; COD (*3) < 100 mg/L; pH (*4): 5.5 to 9
- Discharging high quality treated water into the Ganges

Our Proposed Solutions

14,000 m³/day Sewerage Treatment Plant Project Using SBR Technology

- Executes the 14,000 m³/day sewerage treatment plant project on a turnkey basis using the proven modern SBR technology
- Ensures high quality treated water is discharged into the Ganges as per the latest norms of CPCB
- Satisfies the treated water quality required by the customer, BOD < 10 mg/L; TSS < 10 mg/L; COD < 100 mg/L; pH: 5.5 to 9
- Treats sludge generated during the process of sewerage treatment by pressing the sludge between two belts to squeeze excess water, to allow dewatered sludge to be used as manure or in landfills

(*1) BOD : Biochemical Oxygen Demand

(*2) TSS : Total Suspended Solids

(*3) COD : Chemical Oxygen Demand

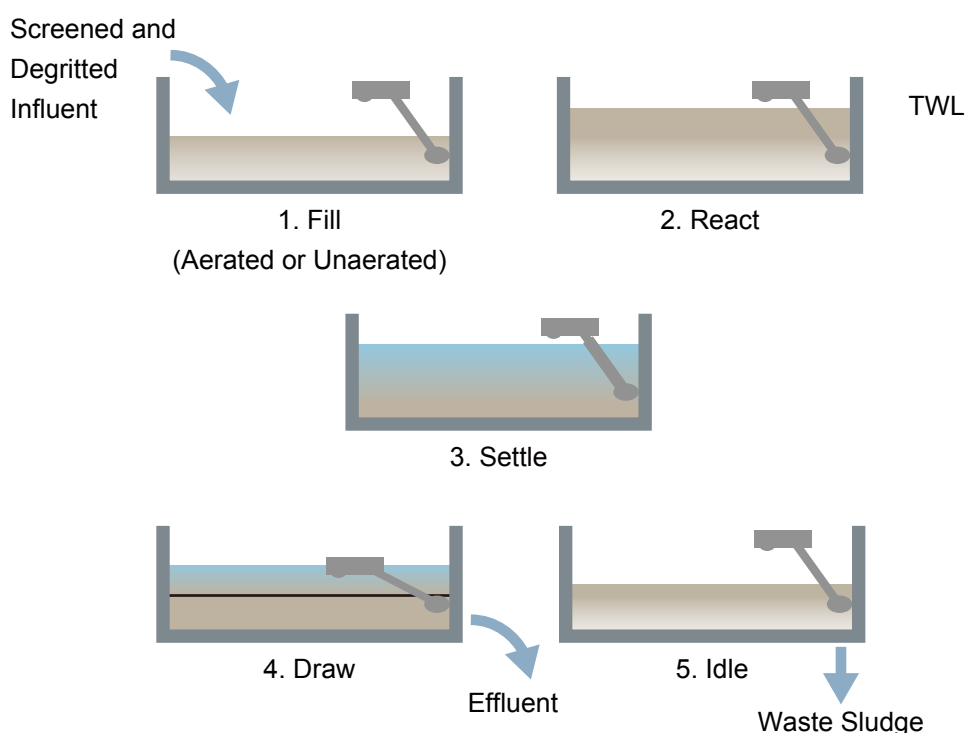
(*4) pH : Potential of Hydrogen

Contribution by Our Solutions

SBR Technology

The SBR is a variant of the activated sludge process, which operates on the fill and draw principle. The SBR process eliminates the need for primary and secondary clarifiers. The unit processes of fill, react, settle, draw and idle occur sequentially on a cyclic basis. In the fill phase, screened and de-gritted waste water flows into the basin. In the react phase, the basin is aerated. During the settle phase, aeration is stopped to allow solids to settle to the bottom of the basin. During the draw phase, treated effluent is decanted. Sludge is wasted during the idle phase.

SBR Fill and Draw Basic Theory



Rejuvenation of the Ganges

High quality treated water is discharged into the Ganges as per the latest norms of CPCB. The treated water quality meets the customers' expectations.

Dewatering and Sludge Treatment

The dewatering and sludge treatment equipment is used to remove 80% of the excess water in the process of sludge treatment.

Photo of Plant



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