

200 MLD STP for Nagpur Municipal Corporation: First ever 100 % PPP based STP in India

A success story at 200 MLD STP

About the Project:

NTPC Ltd., a leading power generation company has commissioned 2320 MW Super Thermal Power Plant at Mouda, near Nagpur. This plant has huge water requirement for cooling towers within the plant. Since Vidarbha is a drought prone area with very less average rainfall, providing continuous water flow of 200 MLD is a difficult task.

For the city of Nagpur, a 100 MLD plant was already in operation but was not sufficient to treat the sewage generated in this area.

Therefore, a project was conceived and conceptualized by Nagpur Municipal Corporation to augment the current plant of 200 MLD capacity and supply this 200 MLD treated water to NTPC for their cooling water requirements. This project was proposed on a Public Private Partnership basis with no initial investment for the corporation. Nagpur based infrastructure company was entrusted to execute this project.



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The Challenge

Since this is a PPP based project involving 33 years operation, maintenance with the turnkey contractor, they can get return on investment only by selling good quality treated water continuously for above 30 years without any interruption.

This called for selection of technically superior and energy efficient equipment having smooth trouble-free operation for long periods.

Also, the plant is expected to be operated at its designed peak capacity of 200 MLD after some time. Therefore, equipment was to be designed to take care of present load and the future load without any changes in equipment. In view of all the above, turnkey contractor and technology provider were keen to select technically superior, reliable, energy efficient equipment.

The Solution

After series of discussions with all the concerned agencies and a lot of technical debate about dry pit pumps v/s wet pit submersible pumps for raw sewage application, KISHOR team submitted proposal to operate raw sewage pumps with VFD to take care of varying load conditions over a period of time.

This proposal was accepted and KISHOR got the complete package of 10 numbers raw sewage pumps and 18 numbers STP pumps in submersible and horizontal execution.

The Customer Opinion

The plant was commissioned in 2018. KISHOR has rendered prompt after sales service beyond contractual commitments to make this prestigious project a big success.