

Executive Summary

Synopsis: The Plant receives domestic sewage water from the residential complexes with no industrial waste being added in the network. The Treated water from the Sewage Treatment Plant is to be used for Irrigation and Landscaping purposes as Technical Sewage Effluent (TSE) however the presence of Ammonia Nitrogen in the Treated water above the permissible limits has rendered its usage. The quantification of Reduction of Ammonia Nitrogen by the usage of Bio Organic Catalyst would be measured and quantified to confirm its effectiveness at the plant.

Methodology: The Bio Organic Catalyst (BOC) dosage has been calculated based on the organic Loading for the Sewage Treatment Plant. The organic loading is determined by doing a Water Analysis and recording the Biological Oxygen Demand for the Sewage inlet. With intermittent cyclic and peak loadings along with shock influent flow to the plant the process equipment's had limitations in the treatment.

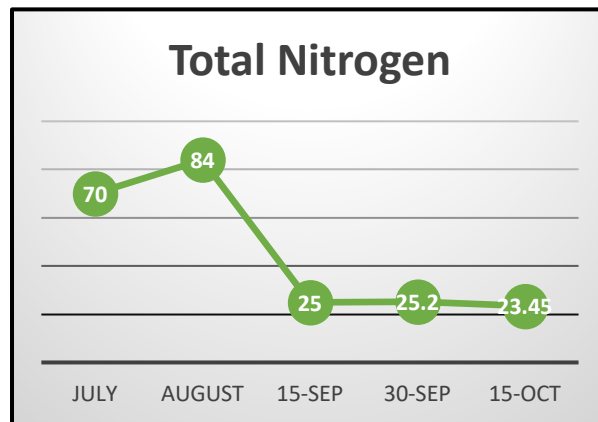
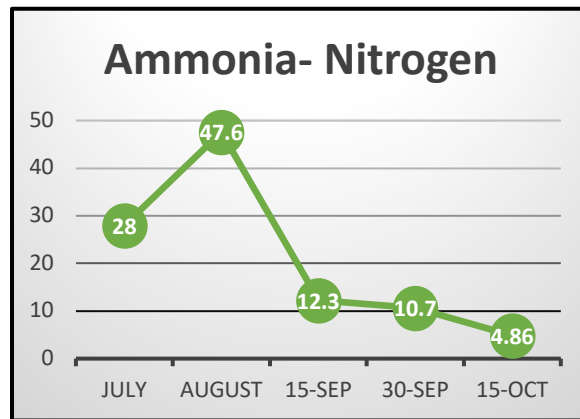
Dosing Plan: To Quantify the impact by the usage of Bio Organic Catalyst it was devised that the operator would review Water Aanalysis of Treated Water generated at the plant and compare it with the trends during the usage of BOC. The Dosage of BOC has been done at 2ppm for the BOD loads of the Sewage Influent.

Results:

- ✓ There has been reduction of over 87% of Ammonia Nitrogen in Treated Water in 30 days
- ✓ There has been reduction of over 70% of Total Nitrogen in Treated Water in 30 days.
- ✓ The Ammonia Nitrogen in treated water is less than 5ppm after 45 days of Continuous usage of BOC

Treated Water Analysis

	Before BOC		After BOC		
	July	August	15-Sep	30-Sep	15-Oct
Ammonia- Nitrogen	28	47.6	12.3	10.7	4.86
Total Nitrogen	70	84	25	25.2	23.45



****The Continous usage of Bio Organic Catalyst (BOC) helps in optimizing the process to reduce Ammonia Nitrogen***