

Executive Summary

Synopsis: The presence of H₂S gas at the Sewage Treatment Plant has always resulted with odor complaints from the community and curtailing the high numbers of H₂S is a compliance and regulatory requirements. Possibility of running distant lines from the community has its logical challenges which at time results with the community being in close proximity of a Sewage Treatment Plant. The usage of process equipment and capital expenditure is a challenge that every operator faces while trying to tackle the Odor challenges of the plant. The usage of Bio Organic Catalyst provides the operator a distinct advantage in tackling the odor in a cost effective manner by eliminating the presence os toxic gases from the sewage water itself

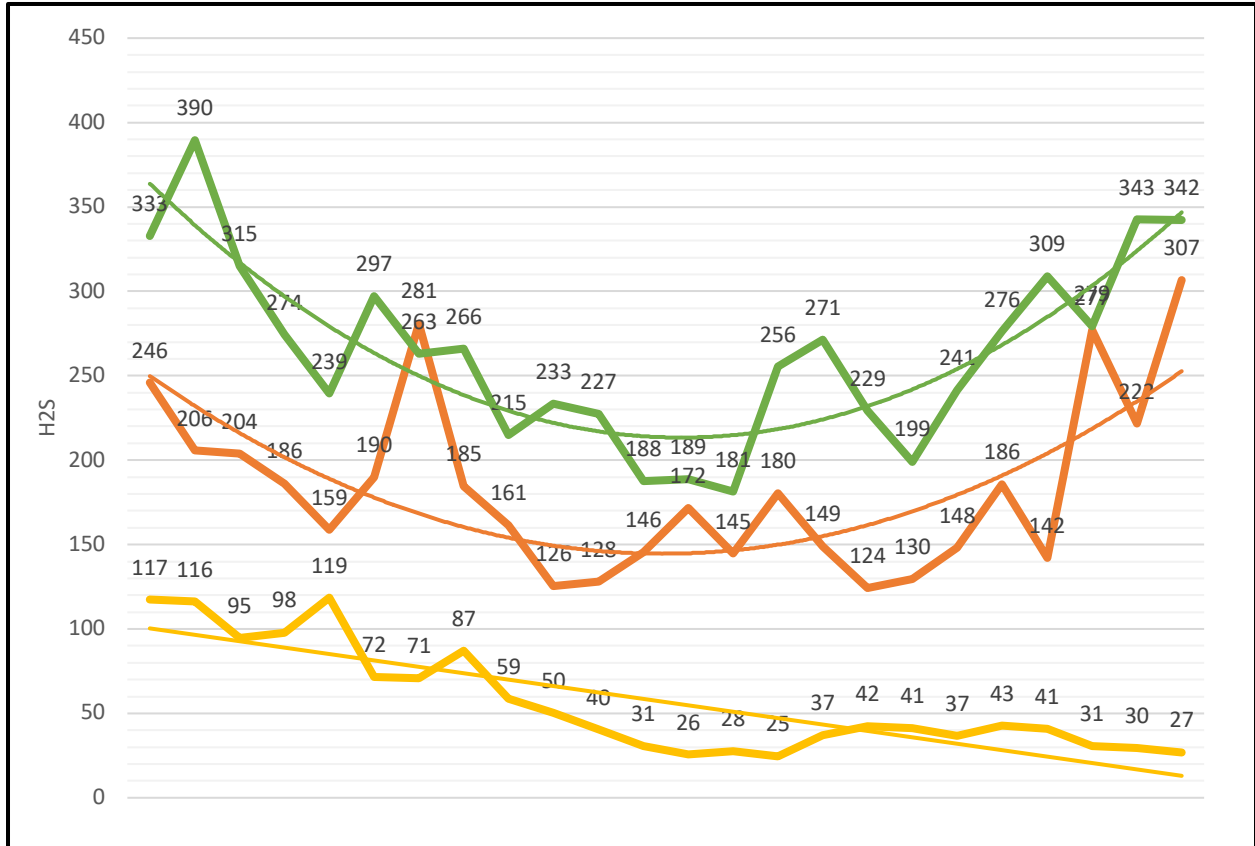
Methodology: Bio organic Catalyst (BOC) is a new technology that provides a platform for Aerobic reaction which ensure higher Oxygen transfer rates thus ensuring that Anerobic Stages for the influent is negated while continuing the process. BOC being a protein in nature also provides a unique advantage wherein the application of the product is completely independent from Ambient Temperatures. By improving the Oxygen transfer the scavenging properties of various chemicals are also negated thus ensuring a sustainable approach

Dosing Plan: To Quantify the impact by the usage of Bio Organic Catalyst it was devised that the operator would review the trend of the H₂S generated at the plant and compare it with the trends during the usage of BOC. The usage of BOC was also curbed after its successful implementation to confirm if the H₂S would again resurface with no usage of BOC. The dosing was done at 1ppm of the BOD load during the pilot after a 2ppm of shock dosage for 2 weeks. Post 2 months of successful completion the BOC dosage was stopped and the data was collected to ascertain the H₂S presence.

Results:

- ✓ There has been reduction of over 85% of H₂S at the STP inlet after continuous usage of BOC
- ✓ The H₂S had again resurfaced after the stopage of BOC within 2 weeks.

H2S Trends



- H2S trends after the stopage of using of Bio Organic Catalyst (BOC)
- H2S trends before the usage of Bio Organic Catalyst (BOC)
- H2S trends during the usage of Bio Organic Catalyst (BOC)

****The Cyclic Nature of H2S in line with incoming sewage can be observed without BOC while downtrend with BOC***