

Background

Ruby Hospital is one of the best and popular hospital in India located in pune, maharashtra. Ruby Hospital popularly known as Ruby Hall Clinic. It was established by K.B Grant in small nursing home in 1959 in the bungalow. Today Ruby Hall Clinic boasts of 500 inpatient bed including 130 intensive care beds with staff strength of 150 consultants, 500 panel of doctors and paramedical staff.

Ruby Hall Clinic generate about 40,000 liters of wastewater coming from different department of hospital like operation. theater, Toilets, Urinals and equipment washing. This waste water treated at STP.

Objectives

Objectives of validation program was to demonstrate the effectiveness of MiCroBial FOG & MiCroBial Aqua by developing biomass and sustain that biomass to improve wastewater quality and to provide plant stability along with odor control from STP.

MiCroBial Solution

MiCroBial Aqua is a natural biocatalyst made via novel fermentative process that has been refined by microbiologist in India. MiCroBial Aqua consists of selected consortium of bacteria and enzymes that degrade organic matter as carbs, proteins and fats. These microbes produces different types of enzymes as amylase, protease, lipase, cellulase etc. MiCroBial Aqua works in both aerobic and anaerobic conditions as it contents aerobic and facultative microbes in waste water treatment.



Dosing Program

Recommended Product	MiCroBial Aqua
Volume of wastewater	40,000 liters/day
Product quantity required	200 gms/day
Fresh water required	60 liters/day
Dosing point	Inlet of collection tank
Mode of application	Application thru dosing tank of 50-100 liters capacity tank

Unit Description

STP has collection tank, aeration tank, clarifier and filtration system with treated tank. This STP treats 40,000 liters of wastewater with daily flow of 40,000 liters/day.

Implementation Protocol

Before start of dosing of MiCroBial Aqua, test samples were taken for testing from inlet and Outlet point. Implementation team added 200 gms of MiCroBial Aqua product in 60 liters of fresh water and kept it for 24 hrs for activation purpose. Activated solution was dosed into inlet point of collection tank over the period of 24 hrs. Dosing of activated solution was started in such a way that dosing of 60 liters of solution should match with daily flow of wastewater into collection tank. It was also recommended to add 100 gms of DAP and Urea into aeration tank as a source of nitrogen and phosphorus. During addition of MiCroBial Aqua, Sludge volume was monitored regularly to see the biomass into aeration tank. PH of wastewater was also monitored regularly.

Results

After few weeks of addition of MiCroBial Aqua product into collection tank, implementation team observed significant improvement in biomass (sludge volume) and water quality. Based on initial monitoring of sludge volume of aeration tank which was below 100 mg/l, it was improved to more than 300 mg/l, it was concluded that MiCroBial Aqua helped to improve the biomass in aeration tank reducing different parameters and improving water quality and provide plant stability along with improved water quality.

Before treatment with MiCroBial Aqua, there was no recovery of water from STP, after treatment, 15,000 - 20,000 liters of wastewater is recovering from STP.



Before Treatment



After Treatment

Conclusion

The result of validation program demonstrate the effectiveness of MiCroBial Aqua in improving the water quality and biomass by increasing sludge volume of the aeration tank along with odor control from STP. Improvement of biomass and water quality concludes that MiCroBial Aqua is very effective in generating biomass in wastewater treatment process.

Testimonial

We are more satisfied with the result achieved by MiCroBial Technologies product used in our STP. We achieved good sustainable biomass and water quality in STP. Our plant is now more stable & we are recovering 15,000 - 20,000 liters/day of wastewater which allows us to save the fresh water for other purposes.

Contact

Satish Bhandare - Microbiologist

MiCroBial Technologies

Tel - +91 8888885375

Email - satish@microbialtech.com

Contact

Bharat Chavan - Distributor

Kisan Bharati Agro Tech Services

Tel - +91 9518735229

Email - kisanbharati1972@gmail.com