

A photograph of a water treatment facility at sunset. The scene shows several large white cylindrical tanks in the background, with a metal walkway and railings in the foreground. The sun is low on the horizon, casting a warm glow over the water and structures. The sky is a mix of orange, yellow, and blue. A green square is visible in the top left corner.

Water & Waste Management

BioRemove™
FOG Boost

Municipal

Case study: Saves country club USD 10,000 in cleaning costs

BioRemove™ FOG Boost was used as an alternative to physical cleaning to save a country club USD 10,000 in cleaning costs, by effectively removing fats, oils, and grease (FOG) from a fixed-film reactor.

Benefits

- **Cleaning costs lowered by USD 10,000 by reducing FOG and FOG-related blockage**
- **Improved plant efficiency by improving FOG degradation**
- **Simplified operations by preventing 2 weeks of plant downtime and reducing the time and effort needed for FOG removal**

Background

A country club was experiencing problems with its onsite wastewater system, which was producing poor effluent quality. Following investigation it was found that an underground fixed-film wastewater treatment system had become so clogged up with grease that the stationary media were starting to float. To clean the media manually would have meant digging up the entire system, which would have cost an estimated USD 10,000 and taken 2 weeks. The facility manager approached Novozymes because he was looking for a better, more cost-effective alternative to manual cleaning.

Application

Novozymes' experts visited the site and examined the aeration chamber, determining the severity of the country club's problem. When FOG gets into the treatment system, it can cause blockages, foul sensors, and cause foaming problems. FOG is biodegradable. However, in many systems, the microbial community does not contain sufficient amounts of the right microorganisms to keep FOG levels under control.

After detailed analysis, Novozymes suggested adding BioRemove™ FOG Boost to the system to degrade the FOG buildup in the reactor. BioRemove™ FOG Boost contains patented microorganisms and is specially designed to degrade FOG quickly and completely. It works to minimize FOG-related problems and optimize a plant's ability to handle excess FOG. It was also recommended that BioRemove™ FOG Boost be added regularly after cleaning to maximize reactor efficiency.

Results

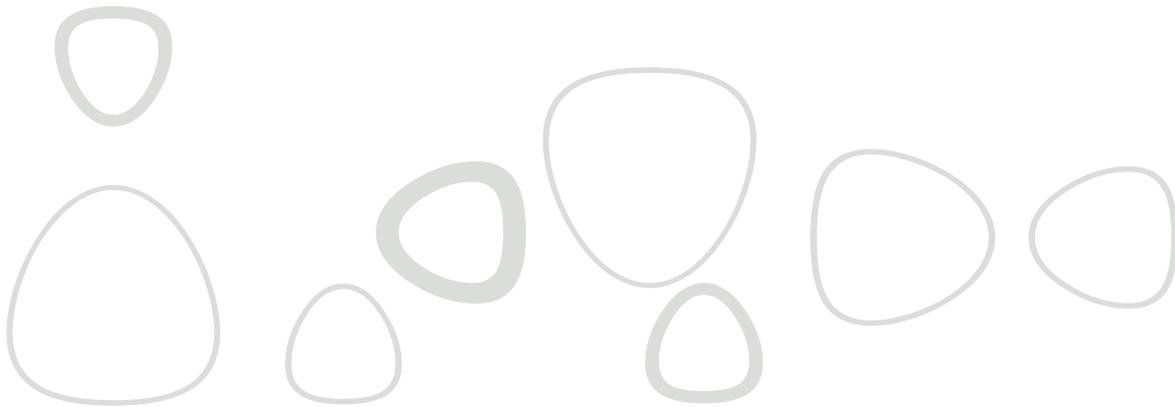
BioRemove™ FOG Boost was recirculated in the reactor for 4 days to reduce FOG buildup. After 4 days of recirculation, the flow was brought online, and a maintenance dosage of BioRemove™ FOG Boost was continued. A follow-up assessment at the end of the treatment period determined that the system was unclogged and that wastewater effluent quality had been restored.

Conclusion

By adding BioRemove™ FOG Boost, Novozymes was able to lower operating costs and simplify operations by reducing FOG removal costs for the facility. Had the facility not contacted Novozymes, it would have faced a costly and inconvenient excavation project, which would have resulted in significant downtime. The solution also boosted

the wastewater system's efficiency by improving FOG degradation. Novozymes' biological solution was shown to be an effective alternative to manual cleaning. Novozymes was able to provide the following benefits to the country club by recommending BioRemove™ FOG Boost:

- **Lower operating costs**
- **Improved plant efficiency**
- **Simplified operations**





About Novozymes

Novozymes is the world leader in biological solutions. Together with customers, partners and the global community, we improve industrial performance while preserving the planet's resources and helping to build better lives. As the world's largest provider of enzyme and microbial technologies, our bioinnovation enables higher agricultural yields, low-temperature washing, energy-efficient production, renewable fuel and many other benefits that we rely on today and in the future. We call it Rethink Tomorrow.

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