



Bioscience, Inc.

Environmental Products and Services

ISO 9001:2008 Certified

Fat, Oil and Grease Reduction in a Section of a Large Municipal Sewer Collection System

Cost-Effective FOG Control Using Microcat® DNTRF, Microcat® Dry Product Feeders and Microcat-BioPops – BSE 109



Problem

Fat, oil and grease (FOG) accumulations are problematic for a large municipal collection system requiring regular maintenance and labor. Several of the lift stations of the collection system accumulate a large quantity of FOG because of their proximity to a high number of restaurants. One of the lift stations serves a large industrial base and a few of the manufacturing facilities produce high amounts of FOG. Because of the FOG in these lift stations and sewerlines, frequent maintenance is required by collection system personnel to keep the sewers from becoming clogged. High pressure washers with steam are utilized to loosen the FOG and keep it from causing blockages. The cleaning crews even need to use a large chisel tool sometimes to manually remove the FOG buildup.

Objective

The primary objective is to reduce fat, oil and grease (FOG) accumulations in the sewer piping and in the lift stations of a large municipal collection system and to reduce the labor intensive maintenance activities. Odors at the lift stations are also a concern.

Procedure

A couple different Microcat products are utilized to solve the FOG accumulation issues. Microcat-DNTRF microbial additive in dry powder form is regularly added (4 times per day) at three different lift stations using automatic, metered Microcat Dry Product Feeders. Microcat-Biopops are used when “extra” grease accumulations are noticed during regular inspections and Microcat-DNTRF, in 1 pound water-soluble packets, is used in a lift station on one of the municipalities busiest streets to reduce FOG accumulation and odors.

MICROCAT® DRY PRODUCT FEEDER



Results and Conclusions

The Microcat product applications have produced several positive effects over several years of application:

1. The wet wells no longer require manual cleaning with a large chisel tool to remove FOG accumulations.
2. The FOG in the wet well is transformed into a lighter whip cream like substance which can be easily cleaned with a regular hose and nozzle. No high pressure wash or steam is needed so the labor required to clean the wet well is greatly reduced.
3. Sewer pipe cleaning downstream from the lift stations and the wet well is no longer required because the grease in the pipes has been greatly reduced.
4. Odors at the lift stations and the wet wells are no longer an issue.

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