ECO Bionics® BIO-Amp™ Improves FOG Removal Efficiency in Grease Interceptors

Problem
Each Wastewater Reclamation Authority (WRA) has the duty to protect the public health and environment from sanitary sewer blockages, backups, and overflows. In Iowa, one city’s WRA prohibited the use of enzymes, emulsifying chemicals, hot water, or other agents as a grease abatement method for grease removal devices or drains without approval. The WRA had stated, “no substance(s) whose effects are advertised to change the nature of the contents of a grease trap interceptor, which receives food wastes, shall receive ‘Notice of Product Acceptability’ from the Director, unless said substance(s) are tested for effectiveness, in a manner described by the Director.”

Analysis
Work began with the WRA to evaluate the BIO-Amp system. The primary objective was to have the BIO-Amp exceed the WRA standards and obtain a notice of product acceptability as a grease removal device additive. It was decided to conduct a field study at a food service establishment with an exterior, below ground, multi-compartment grease interceptor.

Solution
One BIO-Amp unit was placed in a food market kitchen main line leading to the grease interceptor. Samples of the grease interceptor influent and effluent were taken over a period of 54 days with excellent results: trap efficiency increased from 33.32% prior to treatment to 57.59% post treatment, which indicates a 72.84% overall improvement with the BIO-Amp.

Due to the successful results, the BIO-Amp received a notice of product acceptability from the WRA.

The BIO-Amp proved able to deliver beneficial bacteria to control blockages in drain lines due to FOG buildup without causing decreases in trap efficiency or emulsification of FOG.