

Treatment of an Industrial Grease Interceptor in a Chocolate Factory ©2009

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ECOPROBIOTICS®, of the Bacta-Pur® System, are beneficial communities of natural bacteria, which have been on earth for millions of years and have been selected for their synergistic ability to biodegrade pollutants and to improve water quality. ECOPROBIOTICS® increase biodiversity. Just as people take probiotic yogurt for its ability to assure the presence of the optimal community for digestion and immunity, ECOPROBIOTICS® improve ecosystem health. EVERY PRODUCTION of Bacta-Pur® products is analyzed and cleared for shipment ONLY after passing all performance tests and being CERTIFIED PATHOGEN FREE using techniques from the food industry. ECOPROBIOTICS® are purely natural and beneficial. They NEVER contain added chemicals such as surfactants, emulsifiers or enzymes..., nor do they contain genetically modified (GMO) or deliberately mutated organisms. ECOPROBIOTICS® are safe and beneficial. Disease causing organisms are never used, as others do or permit.

Background

The wastewater from a chocolate factory in northern France had high levels of grease. The manager wanted to reduce the grease, which collected in an 8 m³-interceptor and had to be emptied about every 3 weeks. The grease was being sent to an authorized landfill. Several landfills were closing, which was to increase considerably maintenance and disposal costs. The Bacta-Pur® System was selected to digest the grease on site, to be able to send the effluent to the factory's wastewater treatment plant (WWTP) without upsetting or clogging the WWTP, and to reduce operating expenses.

Treatment Program

The initial dose rate, for the first week, was one liter per day of preactivated Bacta-Pur® XLG, which added to the interceptor. This was followed by a regular maintenance dose of 0.5 liter per day of preactivated Bacta-Pur® XLG. The grease interceptor was aerated during the treatment with Bacta-Pur®.

The beneficial microbes in Bacta-Pur® XLG produce the exoenzymes lipases, which convert grease into free fatty acids with lower melting points. The Bacta-Pur® XLG continues the grease digestion by converting saturated fatty acids into unsaturated ones, and by reducing the length of the carbon chain of the fatty acids carbon. This biodigestion process continues to reduce the melting point of grease, while increasing water solubility. The end products of this purely biological process are carbon dioxide, biomass and water.

Results

After one month, the treatment with Bacta-Pur® XLG the digestion of the grease in interceptor was well underway. Grease no longer had to be pumped out; the effluent, from the interceptor, was simply directed to the wastewater treatment plant, where the treatment was improved. Grease was digested not just sent elsewhere, transportation was eliminated and operating expenses were reduced.

