

# RESTAURANT GREASE TRAP

## *Reduction of Oil and Grease In Restaurant Grease Trap*

### **The Problem:**

Oil and grease from restaurants and fast food establishments have presented a major problem to wastewater treatment plants for years. There have been various additives; some have worked well for the removal of grease but cause problems later in the wastewater treatment plant. With the changing regulations and enforcement as to what can be discharged into a system, about the only alternative for grease control was to pump the grease traps and clean the lines.

Recently there have been new developments in the treatment of various waste products. Instead of hauling the problem off and letting someone else deal with it, several approaches treat the waste material on-site. The most fascinating approach is one in which there is stimulation of the existing bacteria to consume more of the waste product.

### **The Treatment Process:**

One such product (**BYO-GON PX-109®**) was tried in the grease trap of a Mexican Restaurant in Texas. The City-County Health Department supervised the test to insure that the product was not emulsifying the oil and grease and allowing it to pass down the line. This restaurant was having to pump the trap every two weeks. Prior to the test, the trap was pumped and cleaned. A sample was taken and analyzed for control purposes. The grease trap was then treated with a shock dosage and then began receiving a daily maintenance dosage. Additional samples were taken weekly to determine the progress. The results are as follows:

<b>Test</b>	<b>Control Sample</b>	<b>Week #3 and #4 Average</b>	<b>Net</b>
O&G	153 mg/l	226 mg/l	+ 73
BOD	801 mg/l	680 mg/l	-122
TDS	2390 mg/l	1865 mg/l	-526
TSS	162 mg/l	239 mg/l	+ 77

### **Results:**

There was no build up of grease in the trap. All odors had been completely eliminated. The amount of grease being discharged was almost the same as the clean trap. The BOD had been reduced an average of 122 mg/l and the TDS 526 mg/l. It was obvious that the organic catalyst had stimulated the existing bacteria to consume more of the waste in the trap. This shows up in the reduced BOD and TDS, as these were converted to TSS, thus the increase.