

# ***Bio-Zone***

## **Transportation - Oil, Grease and Sludge Control**

The southern division of a prominent U.S. trucking company took an innovative as well as cost effective approach to solving some ongoing and increasingly serious environmental problems. This firm experienced what other bulk transportation and tank wash service facilities are experiencing across the nation.

The collection network at terminal facilities consists of three separate in-ground tankage sections. The first section is the #1 holding tank which receives the influent wash water from the tank wash area. The water then flows into a second section where pH adjustments are made to meet municipal pH discharge standards. Final stage flows into a large 10,000 gallon retention tank before being discharged into the municipal sewage system.

As much as 15 inches of bottom sludge has accumulated in section #3, the final retention tank of one or more of these systems. This sludge was pumped out periodically and hauled away to a hazardous waste disposal site at premium haulage rates.

Before using Bio-Zone bacteria inoculant, various terminal facilities failed to comply with municipal discharge limits of oil and grease.

Bio-Zone is comprised of a targeted blend of bacteria with exceptional hydrocarbon degradation capabilities, designed to degrade oil, grease, and reduce high concentrations of sludge. Bio-Zone has been specifically developed to degrade the stubborn and toxic organic compounds that bacteria native to the system cannot readily degrade.

Since the Bio-Zone bacteria are aerobic, a high efficiency forced air injection pump provided the minimum 1.0 ppm dissolved oxygen level that is needed to sustain biological growth. Forced air pumps are more efficient than using common air compressors and are preferred. An “H”

shaped air line of pvc tubing was laid flat over the bottom of the retention tank. Tiny holes were drilled in the pvc tubing to allow for an even distribution of air flow.

After using Bio-Zone for the four-week trial period, the heavy sludge bottom was almost nonexistent and the pH stayed within the permitted range without the addition of any other chemicals. Bio-Zone virtually eliminated the oil and grease problems in the effluent of these various terminals and their discharges complied well within the permit requirements.