

MUNOX[®] SUCCESS Wastewater Application

United States Naval Station

A large southeastern United States Naval Station serves not only as a training facility for naval personnel, but also as a home port for several ships including two aircraft carriers, numerous frigate and destroyer class ships, as well as a number of smaller vessels. Wastewater treatment is accomplished using a domestic treatment plant which includes wet well, bar screen, aeration tanks, clarifiers, and chlorine contact chamber, with effluent discharge to a nearby surface body of water. The WWTP has an average flow of 1.2 million gallons per day with a BOD of 130 ppm, solids of 220 ppm and oil and grease at 60 ppm.

Due to a combination of ship bilge influx, maintenance activities and seamen fire control training (using waste oil), a considerable amount of oil and other more industrial organics enter the WWTP. Although the bulk of the wastewater is domestic, a significant portion is made up of components of a more industrial nature.

Prior to Munox inoculation, the Naval Station experienced periodic upsets due in part to suspected entry of toxic organics. High concentrations of oil in the wastewater reduced effectiveness of the clarifiers and severely disrupted the success of fecal coliform removal by chlorination. All of these factors led to a very poor permit compliance record.

Munox addition proved very beneficial in enhancing the overall operation of the WWTP. BOD removal was increased by 72%, solids removal improved by 45%, and oil and grease removal increased by 16%. Furthermore, fecal coliform removal was increased by over 74%.

The addition of Munox to the wastewater treatment system has stabilized the overall performance, thereby allowing better compliance with permit requirements.