CONVENTIONAL POLLUTANT GLOSSARY

Carbonaceous Biochemical Oxygen Demand (CBOD)

Carbonaceous biochemical oxygen demand, generally referred to as CBOD, is a measure of the oxygen utilized by bacteria to reduce the organic material contained in wastewater. It is simply an indicator of the organic strength of wastewater. As the strength of wastewater increases, the amount of oxygen required by the bacteria to reduce the material also increases. Aeration basins at the treatment facility are teaming with "hungry" microbes ready to break down the organic material in wastewater. However, the aeration basins must have the optimal conditions for this process to occur. Maintaining optimal dissolved oxygen levels and pH conditions required by the respiring microbes ultimately results in higher utility and chemical costs. Food debris such as starches, soups, sauces, and syrups that stay in solution, will have a profound effect on CBOD levels. Solid material may settle out of solution, but often smaller particles or "suspended solids" (see TSS below) stay suspended in the wastestream and can also influence the CBOD level.

Oil and Grease (O&G)/Animal-Vegetable

Animal-vegetable derived O&G is more biodegradable than petroleum based O&G; however, the impact on the sewerage system is greater. It is not uncommon for large amounts of O&G to be released from food preparation facilities and accumulate in the downstream pipes. Consequently, this problem increases sewer maintenance costs. A Food Service Establishment's (FSE) menu and size ultimately determines the amount of fats, oils and grease that will be discharged. Grease can come from washing pots, pans, dishes, etc. Fryer grease should not be dumped down the drain.

Total Suspended Solids (TSS)

Total Suspended Solids, generally referred to as TSS, is a measure of the settleable solids and non-settleable solids in wastewater. TSS, like CBOD, is an indicator of the relative strength of the liquid; accordingly, the higher the TSS concentration, the greater the strength of the wastewater. As the strength of wastewater increases, greater amounts of energy are required to clean the wastewater and thus increase treatment costs. TSS are mainly food particles that enter the tank via the three bay sink, dishwasher, and/or floor drains. Some solids can stay in solution while others fall to the bottom of the tank.

Grease Trap / Grease Interceptor

Grease traps and grease interceptors are reservoirs used to collect pollutants such as oil & grease and solids in kitchen/restaurant wastewater. These devices, which vary in size and design, are built into a discharge piping system a short distance from the grease/solids producing area. Baffles in the traps slow the wastewater flow and reduce turbulence, allowing the grease, solids, and water to separate. Properly sized and designed traps/interceptors will allow for the grease to rise to the surface and solids to settle to the bottom, thus retaining these pollutants while allowing a virtually grease and solid-free wastewater to flow into the sewer system. Traps and interceptors must be maintained on a regular basis; grease and solids must be removed periodically in order for the units to operate properly.