

Industrial Sludge Treatment

An industrial sludge treatment facility could not maintain the needed high level of dissolved oxygen in their treatment basin. Their process required a very short biological digestion period for their high BOD and COD dairy waste. The typical detention time is less than 24 hours. They could not adequately run their system using ambient air. Liquid oxygen was the only solution to meet the process requirements.

IE proposed a system of mixing pure oxygen into their treatment basin at a depth of six feet. This would ensure sufficient DO levels were maintained and only use a total electrical load of 15 HP. The system consisted of a 13,000 Gal. Liquid Oxygen Tank and Vaporizer, one 15HP Medium Velocity Oxygenators (MVOs), an Oxygen Control Module to control the oxygen flow to the MVO.



The treatment plant is now able to accurately control their dissolved oxygen levels in the treatment basin. The use of pure oxygen allows them to keep the bacteria in a high growth stage as required by their process. This precise control could not be possible with ambient air at the high BOD, COD, and TSS basin loading.

