ABSTRACT

The MicroSludgeTM process is a patented process that liquefies waste activated sludge (WAS) to improve the rate and extent of its degradation by anaerobic digestion. The MicroSludge process was operated full-scale at the Los Angeles County Sanitation District’s Joint Water pollution Control Plant from October 2005 until August 2006 to evaluate the performance of this technology for enhancing anaerobic digestion. Biosolids samples from the anaerobic digester receiving MicroSludge treated WAS were compared to samples from a control digester to determine the effect of the MicroSludge process on odor generation from dewatered sludge cakes. It was found that the MicroSludge process reduced total volatile organic sulfur compounds (TVOSC) by about 50% for most sludges tested, even though the fraction of WAS was only 25% of the digester feed. The mechanism for the reduction is not clear since the additional volatile solids reduction was in the range of 3 to 6%.