

CAUSES OF ANAEROBIC DIGESTION FOAMING – A REVIEW

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ABSTRACT

In the United Kingdom, anaerobic digestion foaming has been seen in a number of sewage treatment facilities. Water businesses are concerned about foaming because it has a substantial effect on process efficiency and operating expenses. Researchers have discovered a number of foaming reasons in recent years. However, the amount of supporting experimental data is minimal, and in some instances, non-existent. Foaming causes poor gas recovery from digesters, resulting in higher power generation costs. Foaming may also result in an inverted solids profile, with greater solids concentrations at the top of a digester, the formation of dead zones, and the decrease of the digester's active volume, resulting in sludge that has not been stabilized to the same degree. The purpose of this paper is to give a comprehensive overview of the current anaerobic digestion foaming issue and to identify knowledge gaps in the theory of anaerobic digester foam production.

KEYWORDS: Anaerobic, Digestion, Foaming, Process Efficiency, Sludge.

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