Anaerobic digestion foaming in full-scale biogas plants: A survey on causes and solutions - DTU Orbit (27/09/2019)

Anaerobic digestion foaming is a common operation problem in biogas plants with negative impacts on the biogas plants economy and environment. A survey of 16 Danish full-scale biogas plants on foaming problems revealed that most of them had experienced foaming in their processes up to three times per year. Foaming incidents often lasted from one day to three weeks, causing 20-50% biogas production loss. One foaming case at Lemvig biogas plant has been investigated and the results indicated that the combination of feedstock composition and mixing pattern of the reactor was the main cause of foaming in this case. Moreover, no difference in bacterial communities between the foaming and non-foaming reactors was observed, showing that filamentous bacteria were not the main reason for foaming in this case. © IWA Publishing 2014.

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