Industrial scale anaerobic digestion of brewery effluent

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Unilever AD facilities process brewery effluent using EGSB. Here, we report operational experiences over the period of three years. The process performance and stability is closely monitored by a range of parameters, including COD, pH, and suspended solids. Ripley's ratio and volatile fatty acids, are the most successful to control. The feed COD concentration averages 15000 mg/l and is reduced to 120 mg/l in the effluent (99.2% COD reduction). Suspended solids concentrations are reduced from 2400 mg/l in the effluent to 55 mg/l. Biogas is being produced at an average of 80 m³/h, with 70±9% methane content. We pay special attention to the issues of gas/liquid separation.