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Abstract

The feasibility of using full-scale denitrifying woodchip bioreactors as a technologically simple and cost-effective method to remove nitrate from RAS effluents has been demonstrated at commercial RAS in Denmark, and new woodchip bioreactors are being established. However, more knowledge on how best to start up woodchip bioreactors is needed to avoid that initial leakage of potential hazardous compounds reach receiving water bodies. In addition, little is known about the capacity of woodchip bioreactors for removing disinfectants that are frequently applied in RAS.

In this presentation, results from on-going laboratory studies on a new potential technical solution on how to reduce the outflow of dissolved compounds from woodchip bioreactors during start-up will be presented. Furthermore, initial results from an ongoing trial investigating the removal of formalin and peracetic acid in woodchip bioreactors and potential effects on nitrate removal will be shown.

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