

**Summary of the operating experience at Barham Farm over a 4-year period, including the systems environmental performance across water and air interfaces**

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Barham farm is a 4,000 sow farrow to wean farm in North Carolina. Manure is handled as a liquid in a pit recharge flush system typical of many production oriented swine facilities. Manure plus process water is biologically stabilized in a covered anaerobic lagoon designed for treatment and biogas recovery. Digested effluent is stored in a separate storage pond for land application. Biogas is combusted in a engine generator set equipped for heat recovery and a boiler. The farm is intertied with Carolina power and Light on a surplus sale contract and generates between 60 and 90 kW of power depending on time of year. Hot water is used in heat mats in the farrowing buildings further off setting previous electric power demand.

This paper will summarize the operating experience at this farm over a 4 year period including the systems environmental performance across water and air interfaces.