

1st September 2021

Ultrawaves Wasser- und Umwelttechnologien GmbH
Herrn Dr. Klaus Nickel
Becker-Göring-Str. 17 - 25
76307 Karlsbad, Germany


Reference letter regarding successful application of Ultrawaves High-Power Ultrasound Technology on Ahrensburg WWTP

Dear Dr. Nickel,

We herewith confirm that WWTP Ahrensburg is using the patented Ultrawaves High-Power Ultrasound Technology for sewage sludge disintegration to improve the anaerobic sewage sludge digestion performance since the year 2006.

We are evaluating the performance of sewage sludge digestion system on Ahrensburg WWTP - based on full mass balances - and since the installation of Ultrawaves HPUS technology we have achieved an improvement of sludge volatile solids degradation of 15-20% and an improvement of the biogas production in the same range of 15-20%.

Best regards,



Olaf Grönwald
(Managing Director of Ahrensburg WWTP)