

Hallesche Wasser und Stadtwirtschaft GmbH

Client
Hallesche Wasser und Stadtwirtschaft GmbH

Construction time
08/2019 - 02/2020

Order value net
600,000 €

Contractor
FRIEDRICH VORWERK SE & Co. KG

Own work
Planning/civil engineering/reinforced concrete construction/pipe construction (stainless steel)/EMSR/earthing and Lightning Protection/IBN

Subcontractor services
Delivery of the plant components

Features
The gas treatment plant had to be integrated into an existing system, with different conditions, without system, with different conditions, without cause long downtimes

Contact
www.friedrich-vorwerk.de

Gas treatment plant Halle-North sewage treatment plant

The Hallesche Wasser und Stadtwirtschaft GmbH operates the Halle-Nord Halle-Nord sewage treatment plant with a current capacity of 340,000 population equivalents. For the utilisation of the resulting sewage gas quantities (max. 600 m³/h, 6,000 - 9,000 m³/d), a CHP plant (3 CHP units á 647 kW elt. built in 1997) with a total firing thermal output of of 1.94 MW is integrated into the system. Prior to the conversion, the gas was treated only by means of a gravel filter and condensate removal. With the tightening of the the exhaust gas limits for formaldehyde to 20 mg/m³ on 01.07.2018. mg/m³, the CHP plant was retrofitted with oxidation catalysts. The service life (effective service life) for oxidation catalysts is catalysts is significantly influenced by the raw gas quality of the raw gas. The service life of the catalysts required an extension of the gas treatment system. For this purpose HWS agreed on a gas purification system with Friedrich Vorwerk Vorwerk KG (GmbH & Co.). Friedrich Vorwerk KG (GmbH & Co) was commissioned to realise and implement the project on 23 August 2019. The plant, consisting of the components gas drying for condensate discharge, with gas heating to optimise the effect of the activated carbon, with a compressor to maintain the necessary operating pressure, with two activated carbon tanks for filtering sulphur and siloxanes, with the necessary piping, electrotechnical and communications expansion, was successfully integrated into the existing system. integrated into the existing system.