Client: KENOW
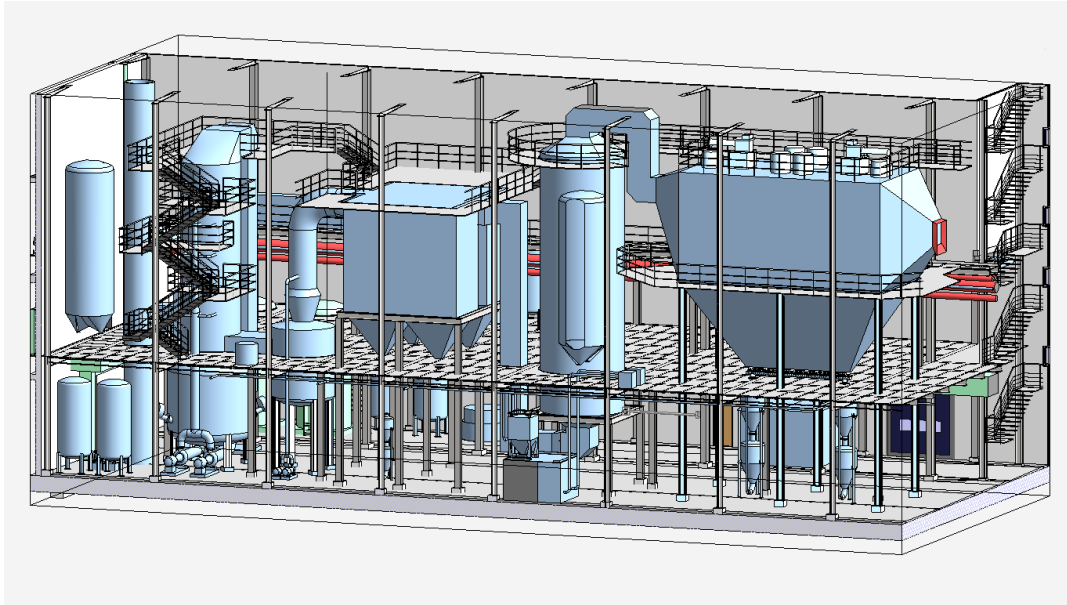**Project: KENOW Construction of new sewage sludge incineration plant**
Services: Planning work

General

The KENOW company with its associates

- hanseWasser Ver- und Entsorgung (hVE)
- Oldenburgisch-Ostfriesischer Wasserverband (OOWV)
- EWE Wasser (EWE)
- swb Erzeugung (swb)

is planning to build a single-line sewage sludge incineration plant at the industrial port of Bremen for the thermal treatment of sewage sludge produced in the sewage plants of hVE, OOWV, EWE and other third parties.

Scope of services provided by T&N

As part of a bidding consortium formed by the engineering consultants w+g, fbi and PFI, T&N is responsible for the project management and the flue-gas cleaning system. The planning work covers the work phases 1 to 8 as set out in the HOAI (official scale of fees for services by architects).

Flue-gas cleaning system

The flue-gas cleaning system is a multi-stage cleaning system comprising ash removal, upstream dry absorption, a two-stage gas scrubber, including gypsum separation and spray drying of the salts in the gas scrubbers.

The fly ash that is sent to an external phosphorus recovery system is first separated in the two-field electrostatic precipitator. In the subsequent spray drier, the saline blow-down from the scrubber system is injected into the flue-gas stream, where the water evaporates, leaving the salts as a powdery residue. In the downstream reaction path, lime hydrate and adsorbent are added in dry form for the primary separation of acidic flue-gas components and heavy metals. The flue-gas containing residues and sorbents is fed into the subsequent fabric filter for ash removal. In the following two-stage scrubber system the residual acidic flue-gas components are separated, before the flue gas is released into the atmosphere through the chimney with the aid of the ID-fan.

Thanks to this flue-gas cleaning system, all emission limits specified in the 17. BImSchV (German ordinance for emission limits) as well as the expected BAT/BREF-figures can be reliably met.