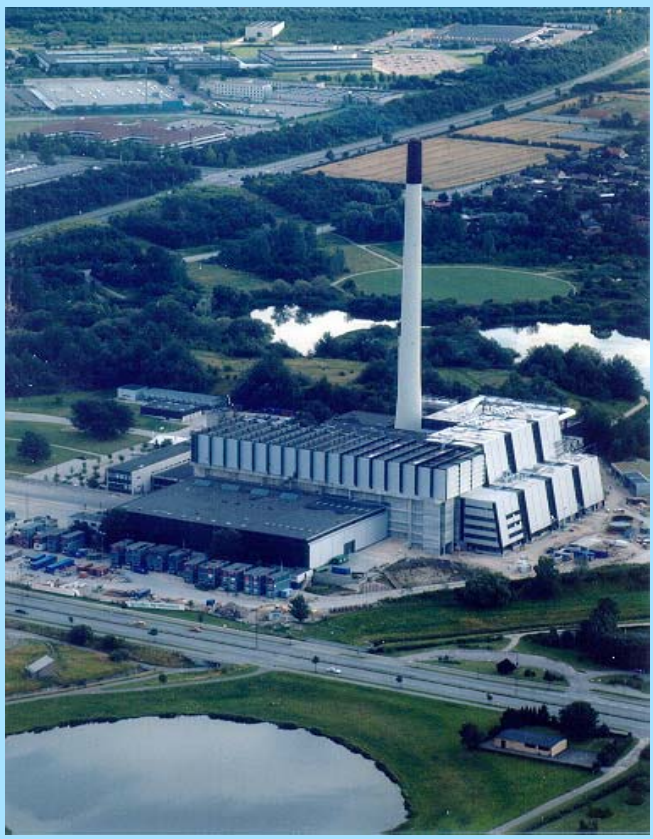
COMBINED WATER TREATMENT AT VESTFORBRÆNDING



Götaverken Miljö AB has built a combined water treatment plant on behalf of I/S Vestforbrænding.
In the plant, scrubber water from four flue lines with a total flue-gas flow of approximately 400,000 Nm^3/h is cleaned. The water treatment plant processes both the acid and the alkaline scrubber water, and includes gypsum formation, gypsum dewatering and ash stabilisation with sulphide sludge.

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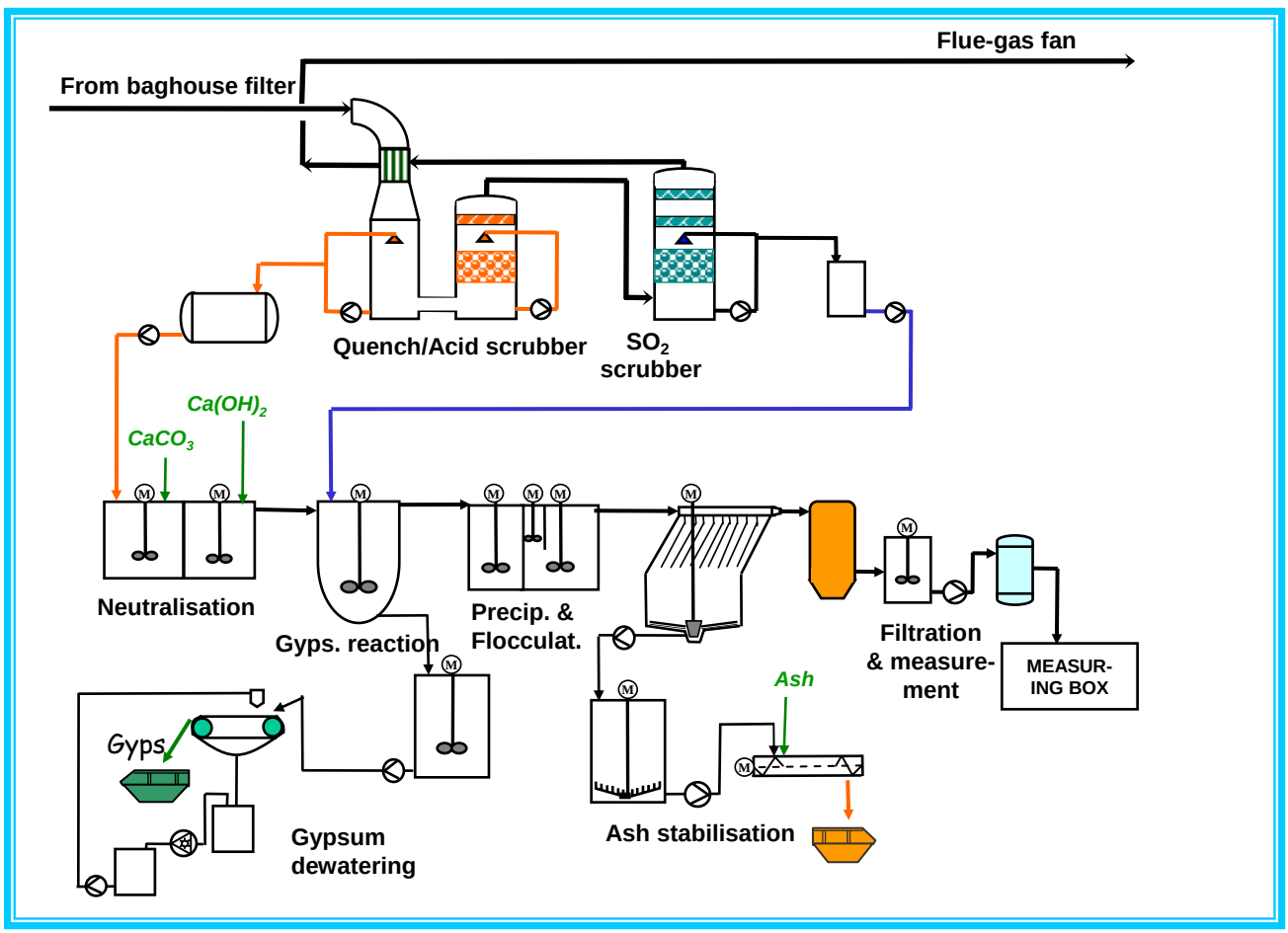
Process description

The flue-gases from the incineration lines 1-4 are cleaned in the existing scrubbers installed by Götaverken Miljö AB in 1992. At the request of I/S Vestforbrænding, Götaverken Miljö AB has up-graded the plant with a total water treatment system comprising two identical lines. The combined water treatment cleans the output water from both acid and alkaline scrubbers. During the treatment process, controlled gypsum formation takes place in a separate process stage, with subsequent gypsum dewatering. For gypsum formation, the neutralised acid scrubber water is used, which is mixed with the output water from the alkaline scrubbers. Nominal gypsum production is 230 kg/h based on 100% TS. Following the gypsum separation, the water is treated with precipitation and flocculation chemicals, with subsequent filtration. Sludge from the precipitation stage is used to stabilise the fly ash with the ”Bamberg method”.

Limit values - Water quality		
pH min/max	-	6.5/9.0
Suspended substances	mg/l	30
Total cyanides	mg/l	1
Pb	mg/l	0.1
Cd	mg/l	0.003
Cr	mg/l	0.3
Cu	mg/l	0.5
Hg	mg/l	0.003
Ni	mg/l	0.25
Ag	mg/l	0.25
Zn	mg/l	1.5
Tl	mg/l	0.05
As	mg/l	0.15
Sulphate (SO_4^{2-})	mg/l	2000
Dioxins & furans	ng/l	0.3



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