Meeting Tomorrows Emission Standards for CO₂/SOX/NOX and Heavy Metals while Maintaining Competitiveness
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Abstract

The company Carbon Process & Plant Engineering S.A. (CPPE), located in Luxembourg, has taken over the flue gas cleaning engineering activities from Donau Carbon GmbH, former Lurgi Aktivkohle GmbH. CPPE is a specialist technology provider of flue gas cleaning processes [consulting, engineering, erection as well as turn-key plants] for the removal of sulfur oxides, nitrogen oxides and carbon dioxides as well as elimination of mercury and dioxin/furan, declared as maximum achievable control technology (MACT) standard by US authorities. CPPE is engineering several flue gas cleaning processes amongst them the Kombisorbon® and Sulfacid® process, first built in 1991, respectively 1968. Our flue gas cleaning processes are already in use at major companies all around the world. We have more than 100 referenced applications.

Our presentation will cover CPPE latest innovation and development progress leading to low emission technologies which meet tomorrow standards and that are based on our well-known Sulfacid® process and Cat-NOx® technology. Technical hallmarks of these technologies are: highly efficient as well as flexible SO₂/NOX removal (up to 99 percent efficiency) and its subsequent conversion to acid; space saving construction technique; minimal water consumption; low operating and capital costs. The combined removal of sulfur dioxide and nitrogen oxides lead to additional cost-savings and footprint reduction. In addition, Arsenic and Mercury removal can be incorporated

CPPE PROCESSES:

Sulfacid®-Process: SO₂ conversion to sulfuric acid
Sulfosorbon®-Process: H₂S conversion to sulfuric acid
Kombisorbon®-Process: Hg & Dioxin/Furan removal (MACT standard)
CO₂/SO₂® & CO₂/NOX® Processes: conversion of CO₂/SO₂/NOX to fertilizer
As removal Technology: dry (GoGu) wet (scrubber/WESP)