

Press release

Höhr-Grenzhausen (Germany), 08 March 2017

New order for a flue gas scrubbing plant from Saudi Arabia

Steuler Anlagenbau was awarded the contract to undertake the engineering, supply, supervision/installation and commissioning of a complete wastewater-free flue gas scrubbing plant in Jazan, Saudi Arabia. The contract for the Steuler flue gas scrubbing plant is worth several million euros.

A special feature of the system is that the boiler plant is fired using mazut, a fuel similar to heavy fuel oil. Besides particulates, the exhaust gases generated by burning mazut contain other environmental pollutants, including toxic NOx compounds and a very high proportion of SOx that have to be removed before the flue gas is released into the atmosphere.

The DeNOx plants, which operate on the selective catalytic reduction (SCR) principle, are installed in the high-dust zone of each boiler. The nitrogen oxides (NOx) are catalytically converted into water and nitrogen, which naturally occur in the earth's atmosphere, using a 40% urea solution as the reducing agent.

The acidic sulphur oxide compounds are removed with a wet scrubber using calcium hydroxide $Ca(OH)_2$ as absorbent. Gypsum is formed as a by-product that can be used as a raw material in the construction industry.

As such, the methods being implemented by Steuler Anlagenbau do not result in residues or wastewater being generated during the DeNOx or DeSOx processes that require complex treatment or disposal.

Due to logistical constraints that only permit delivery of the plant components in containers, the scrubber will be constructed on site using a polymer-concrete composite, the liner for which will be delivered directly to the site as large-format polypropylene boards. The boards, which have plastic anchors welded to them, will be cast into the reinforced concrete, thus mechanically anchoring them. Constructing the scrubber in this way means low capital investment combined with safe, long-term operation and minimal maintenance costs.

The completed flue gas scrubbing plant is scheduled for commissioning in the 1st quarter of 2018.





Comparable flue gas scrubbing plant with DeNOx stage and DeSOx scrubber constructed using concrete.

Along with regeneration units for process media, **Steuler Anlagenbau GmbH & Co. KG** also builds and supplies complete plants for the surface treatment of metals, the cleaning and treatment of industrial wastewater and the purification of waste gases by means of catalyst technology and absorption methods.

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