

PRESS RELEASE

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New primary gas cleaning system for converter steelworks

ArcelorMittal Kryviy Rih chooses hydro-hybrid filter technology from SMS Siemag

From ArcelorMittal, SMS Siemag, Germany, received the order for a comprehensive revamp of the gas cleaning equipment at the steelworks in Kryviy Rih, Ukraine.

The works operates a total of six 160-t BOF converters. Presently, the dust-laden converter gas is cleaned by means of conventional wet-type scrubbers. Within the framework of the current modernization project, the filter systems will be converted to the innovative hydro-hybrid filter technology, which we developed together with SMS ELEX. The new filter system builds on the positive experience gained from more than 30 reference plants fitted with wet-type electrostatic precipitators for converter gas.

This technology is an excellent option for retrofits of existing plants in order to bring them up to increasingly stringent environmental standards. By retrofitting a wet-type electrostatic precipitator (ESP) suitable for this application and integrating it smoothly with the existing wet-type scrubber, residual dust contents can be brought down to such levels that even the most exacting legal requirements are complied with. Investment costs are distinctly lower than those for a newly erected primary gas cleaning plant using dry-type electrostatic precipitators. Usually, even the operating costs of the

gas cleaning system can be reduced. A further advantage is the compact design of the filter, facilitating installation in existing plant environments with confined space conditions.

In addition to modernizing the off-gas cleaning system of the Kryviy Rih works, also the off-gas cooling system complete with the water cooling circuits will be renewed. Per converter, one new wet-type scrubber will be supplied. The existing water treatment plant will be used without any modifications for both the wet-type scrubbers and the wet-type electrostatic precipitators. Further, the SMS Siemag scope comprises the basic and detail engineering and the supply of all core components. The six wet-type electrostatic precipitators will be supplied by SMS ELEX. The conversion concept provides for the possibility of retrofitting a converter-gas recovery plant at a later stage to further enhance the economic efficiency of the facility.

The project will be realized in several steps, covering one converter at a time. The first hydro-hybrid filter system is scheduled to be operational in 2012.

ArcelorMittal Kryviy Rih sets great store by sustainable and eco-friendly production processes. In recognition of its commitment exercised in the past, the company was awarded the title “Environment Protection Leader 2009” within the framework of the program “Ecology, environment and nature management in Ukraine”.

(45 lines with max. 55 letters)