

News Release

July 27th, 2020

Nippon Steel Engineering Co., Ltd.

Dry De-SOx De-NOx System (DDDS) for Wugang Zhongjia Steel Starts Operation

Nippon Steel Engineering Co., Ltd. (Representative Director and President: Yukito Ishiwa; Head Office: Shinagawa-ku, Tokyo; hereinafter, "NSE") is pleased to announce that it has successfully completed construction of a dry de-SOx de-NOx system for Wugang Zhongjia Steel Co., Ltd. (Henan Province, China; hereinafter, "Wugang Zhongjia"), which it accepted an order for in conjunction with Chinese joint venture, Beijing JC Energy & Environment Engineering Co., Ltd. (hereinafter "BJCEEE"). The new system is already up and running.

The Dry De-SOx De-NOx System (DDDS^{*1}) delivered by NSE is the first to comply with the ultra-low emissions standards (SO₂: ≤ 35 mg/Nm³, NO_x: ≤ 50 mg/Nm³, soot and dust: ≤ 10 mg/Nm³) required by the Chinese government from 2020. The cutting-edge environmentally-friendly system utilizes a dry process (using activated carbon) to efficiently adsorb and remove hazardous substances (such as SO₂, NO_x, Dioxins, and soot & dust) included in the waste gas emitted during the sintering process of the raw material (iron ore) for the steel industry. The SO₂ removed from the waste gas is effectively used as concentrated sulfuric acid for industrial use.

The DDDS from NSE was chosen for Wugang Zhongjia based on the following strengths:

- (1) Track record delivering 10 of the systems in Japan and 3 overseas, and more than 30 years of stable operation.^{*2}
- (2) Thorough countermeasures for hot-spots^{*3} and corrosion.
- (3) Original NSE technology for evaluating the performance of activated carbon (for selecting the optimal activated carbon and system specifications).

NSE handled basic design, and local implementation design, procurement, installation, and test operation was conducted in collaboration with BJCEEE. QCD management was highly acclaimed by Wugang Zhongjia.

Looking ahead, NSE will further develop cooperation with BJCEEE to greatly contribute to environmental conservation and the development of the Chinese steel and sintering industries, via environmentally-friendly and energy-saving DDDS technology cultivated in the Japanese steelmaking industry.

- *1 **DDDS** is an abbreviation for "Dry De-SOx De-NOx System." Transferred to NSE from Sumitomo Heavy Industries, Ltd. in November 2017 as an environmentally-friendly flue gas treatment technology.
- *2 Delivery and operation record includes the time when the technology was part of Sumitomo Heavy Industries, Ltd.
- *3 Hot-spots are a phenomenon where the retention, etc. of activated carbon causes localized accumulation of heat that leads to thermal runaway. NSE is well-versed in how hot-spots tend to occur, and provides equipment that implements thorough prevention measures to its customers.



[Full view of the system]

[For more information, please contact below]

<https://www.eng.nipponsteel.com/english/contact/index.html>