

January 30th, 2019 Nippon Steel & Sumikin Engineering Co., Ltd.

NSENGI Receives Order from WUGANG ZHONGJIA STEEL CO., LTD. for DDDS for Treating Sintering Flue Gas

Nippon Steel & Sumikin Engineering Co., Ltd. (Representative Director and President: Shinichi Fujiwara; Head Office: Shinagawa-ku, Tokyo; hereinafter, "NSENGI") is pleased to announce that it has received an order from Wugang Zhongjia Steel Co., Ltd (hereinafter, "Wugang Zhongjia") in China for a Dry De-SOx De-NOx System (hereinafter, "DDDS"*¹) for treating sintering flue gas.

As part of its efforts to tackle the country's serious air pollution, China has recently been accelerating moves toward stronger regulations on flue gas emitted during steelmaking processes. The country has announced plans to introduce regulations that will mandate the application of "ultra-low-emission" flue gas standards (SOx: 35 mg/Nm³; NOx: 50 mg/Nm³; soot: 10 mg/Nm³) to sintering machines starting in 2020. Steel companies in China are moving quickly to introduce de-SOx and de-NOx systems to meet these future regulations.

The DDDS ordered from Wugang Zhongjia was chosen over competing products from a number of Chinese companies in a competitive bid, thanks to particularly strong technical reviews on the following points.

- (1) Outstanding track record of 10 systems delivered in Japan and 3 systems abroad, with over 30 years of steady operation
- (2) Thorough countermeasures against hot spots*2 and corrosion
- (3) NSENGI's proprietary technology for evaluating activated carbon performance (selecting optimal activated carbons and determining system specifications)

In our efforts to win this contract, we ensured we were cost competitive against local competitors by having Beijing JC Energy & Environment Engineering Co., Ltd. (BJCEEE), an NSENGI group company with a track record of over 50 coke dry quenching (CDQ) systems delivered in China, manage project execution.

We are committed to making this project a success to demonstrate the superior technological reliability of our DDDS and market it more extensively within China. As a leading company in environmental conservation and energy-saving technologies for steelmaking processes, we will continue to make further contributions toward the realization of a sustainable society.

- *1: The Dry De-Sox De-NOx System (DDDS) is designed to remove sulfur oxides (SOx), nitrogen oxides (NOx), soot, dioxins, and other air pollutants contained in the flue gas generated during sintering by adsorbing them using activated carbons. The DDDS business was acquired from Sumitomo Heavy Industries, Ltd. in November 2017 to offer its environmentally-friendly flue gas treatment technology to our customers.
- *2: A hot spot is a phenomenon in which activated carbons become overheated due to thermal runaway triggered by localized heat storage that results from the accumulation of activated carbons and other reasons. Drawing on our deep knowledge about tendencies in the occurrence of hot spots, we propose systems equipped with thorough countermeasures to prevent their occurrence.

[For more information, please contact below] https://www.eng.nssmc.com/english/contact/index.html