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Press Release:

NYK IDEMITSU Green Solutions Co., Ltd.

**Boiler Fuel Control Optimization System ULTY-V plus AT Achieves Further Reduction in Fuel Consumption Through Coordinated Control with a System Being Developed by Horiba, Ltd. for Monitoring Unburned Carbon in Fly Ash**

NYK IDEMITSU Green Solutions Co., Ltd. (Head office: Shinagawa-ku, Tokyo; President & Representative Director: Shinji Umehara), a joint venture company formed by Idemitsu Kosan Co., Ltd. and the NYK Group to facilitate R&D of the ULTY-V plus AT, a fuel control optimization system for boilers, announced today the successful conclusion of its coordinated testing of the system with another system being developed by Horiba, Ltd. (Head office: Minami-ku, Kyoto; President & Representative Director: Masayuki Adachi) that measures the unburned carbon content of fly ash. The test, which was conducted at a thermal power plant operated by Ishihara Sangyo Kaisha, Ltd., proved that such coordinated control could further reduce the loss of unburned carbon while improving system controllability and the rate of reduction in fuel consumption.

This control technology—the first of its kind in the world—is made possible by measuring the boiler’s unburned carbon loss in real time and its intake into the ULTY-V plus AT, along with AI-powered learning of the boiler’s dead time\* within the ULTY-V plus AT. It also has the ability to adapt to diversifying fuel types amid the global spread of carbon-neutral measures in recent years.

The unburned carbon content measurement system can be additionally installed into any of the 150 ULTY-V series units operating in the field. The company intends to develop a cooperative structure in order to promote the sale of the ULTY-V plus AT coupled with the unburned carbon content measurement system.

The ULTY-V plus AT is a system designed to improve the efficiency of boilers by integrating an AI (Artificial Intelligence) learning function to optimize their operation, resulting in lower fuel consumption, thus contributing to better economy and reduction of CO<sub>2</sub> emissions.

NYK IDEMITSU Green Solutions Co., Ltd. remains committed to facilitating the realization of a sustainable society by developing efficient fuel technology in line with cutting-edge AI control technology and biomass fuels.

\*Dead time, also known as delay time, is the period from when the fuel feeding (operation) rate is changed to when the main steam pressure (control object) changes as a result.

Contact for inquiries:

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