

London, Vienna, November 30, 2021

## Contract for flue gas treatment systems at Acciaierie d'Italia plant awarded to Primetals Technologies and YARA Environmental Technologies

- **Three 160 MW boilers will be equipped with state-of-the-art flue gas treatment systems**
- **NO<sub>x</sub>-, SO<sub>x</sub>- and dust emissions will be significantly reduced**
- **Startup of the first unit is scheduled for fourth quarter of 2022**

A consortium consisting of Primetals Technologies Austria GmbH and YARA Environmental Technologies GmbH, both based in Austria, has been awarded by Acciaierie d'Italia a contract for a new flue-gas treating (FGT) systems for the three 160 MW boilers at its power plant No.2 in Taranto, Italy. Within this consortium, Yara will deliver the new economizer and SCR (selective catalytic reduction) DeNO<sub>x</sub> elements and Primetals Technologies will cover the DeSO<sub>x</sub>- and dedusting part. The startup of the first FGT unit is scheduled for the fourth quarter of 2022 with the other two units following in short succession.

Built in the early 1970s, power plant No.2 (CET 2) is a conventional thermo-electric power plant which will now undergo a major environmental upgrade through the installation of state-of-the-art flue gas treatment technologies, including SCR DeNO<sub>x</sub> system (integrated in a new economizer) for reduction of NO<sub>x</sub> emissions by 80%, Meros DeSO<sub>x</sub> technology for reduction of SO<sub>x</sub> emissions to less than 130 mg/Nm<sup>3</sup> and high-end fabric filters for removal of fine dust emission to less than 2 mg/Nm<sup>3</sup>.

In order to utilize the existing power plant configuration and the limited available space, several special considerations had been incorporated in the design of the new FGT systems already during the development phase of the project.

Dr. Alexander Fleischanderl, Head of ECO solutions at Primetals Technologies states: "This important environmental improvement project reflects another milestone in our long-lasting and out-standing

partnership with Acciaierie d'Italia to accompany them to achieve the strictest environmental emission standards for their Taranto site. After successful implementation of the new sinter secondary dedusting project and the on-going four Meros lines for the sinter plants D and E, another three Meros units will be implemented for the three blocks at CET2 power plant. We are proud of the trust of Acciaierie d'Italia in Primetals Technologies' high performance ECO solutions."

"This is an exciting venture," explains Klaus Weigl, who heads up Yara's Industrial Solutions Stationary unit. "The extreme heat of the flue gas coming from the boilers will be used in the SCR DeNOx process, which requires temperatures in excess of 300 °C," says Weigl. "Integrating the SCR catalyst into the economizer is an innovative and unique way to save energy and reduce carbon footprint. Using the heat of the boiler flue gas in the SCR process rules eliminates the need to re-heat the flue gas with external energy sources. At the same time the configuration of the economizer for waste heat recovery can remain as is and the integrity and function of the overall boiler system is unaffected."

The high temperature of the flue gas coming from the boilers will be utilized for the SCR DeNOx process which requires temperatures of more than 300°C. The SCR catalyst will be integrated into the boiler economizer. Due to its condition, the existing, original economizer will be replaced by a new state-of-the-art version. SO<sub>x</sub> in the flue gas will be controlled by applying Primetals Technologies' proprietary Meros technology. Based on the favorable process conditions and the limited available space, sodium bicarbonate (SBC) will be used as DeSO<sub>x</sub> agent which ensures high DeSO<sub>x</sub> efficiency but does not require any water injection as it is a completely dry technology. This technology has been invented by Primetals Technologies and has already been successfully applied in numerous plants.

The FGT systems will also be designed to cover all the changing load- and flue gas conditions of power plant No.2. As the boilers are fired with the typical by-product gases from steel mill operation (coke oven-, blast furnace- and converter gas) the quantity and mix of those gases may vary depending on their availability and the FGT system will cover all those different load cases accordingly while still maintaining the required environmental performance.

The project kicked off in June 2021 and will run on a fast-track schedule in order to reach compliance with the environmental requirements by the end of 2022.

MEROS is a registered trademark of Primetals Technologies, Ltd. in certain countries.



Model of the future flue gas treatment plant at Acciaierie d'Italia power plant No.2 (CET 2)

This press release and a press photo are available at [www.primetals.com/press/](http://www.primetals.com/press/)

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YARA Environmental Technologies, Limited, headquartered in Vienna, Austria, is a leading company in flue gas denitrification technologies for a wide range of stationary sources of emissions. YARA Environmental Technologies has around 100 employees worldwide, serving customers in various industry segments around the globe. Read more about our business on [Yara's website](#).