

PRESS RELEASE

Severstal relies on Paul Wurth Technology for Blast Furnace Plant Modernization

Luxembourg, 17 May, 2017. Severstal, one of the world's leading vertically integrated steel and mining companies, has signed a contract with Paul Wurth S.A. for design and supply of key technology and related equipment for the relining of Blast Furnace No. 5 ("Severyanka") at Cherepovets Metallurgical Plant in Russia.

Alexander Shevelev, Chief Executive Officer of Severstal, said: "The fifth blast furnace has been operating for over 14 years and this refurbishment project is expected to more than double its lifespan. This is an ambitious project which will require a variety of innovative technical solutions. Since the very first stages of design, we have been constrained by strict environmental regulation which the engineering and equipment suppliers must also comply with. Leading technology will ensure that the refurbished blast furnace consistently performs at a high level, conserving resources and employing a fully automated and environmentally friendly process for the smelting of cast iron".

In 2018-2019, the plan is to build the auxiliary facilities at the complex. The main technological equipment and equipment for the automated control system will be installed in 2020.

"Severyanka" is currently one of Europe's largest furnaces by volume. Its design capacity is more than 4 million tonnes of hot metal per year.

Severstal's order to Paul Wurth comprises a completely new, parallel-hopper design Bell Less Top® charging system with a hopper volume of 80 m³ and a chute transmission gearbox with the most efficient and reliable pressurized cooling system, the latest innovation from the inventor of the BLT®. The blast furnace top gas will be cleaned by a Paul Wurth two-stage top gas cleaning plant consisting of a new type axial cyclone for the dry separation of coarse particles and an annular gap scrubber with a demister for fine dust elimination and more accurate control of the top gas pressure compared to the use of septum valves. This configuration of the top gas cleaning system and its possible set points ensure a high cleaning efficiency (dust load on clean gas: less than 4 mg/Nm³), a significant reduction of sludge production and provide the possibility of higher Fe return rates into the main metallurgical cycle.

After a positive experience with Paul Wurth's BFXpert level-2 automation solution at the currently operating BF No. 5, Severstal ordered an upgrade and extension of this system, with new functionalities of the models for even more efficient process control.

Furthermore, Paul Wurth will supply four INBA® slag granulation plants with dynamic dewatering of the slag sand. With the cold water system and steam condensation, an officially recognised Best Available Technology (BAT) will be applied for targeted emission control at lowest level. After about 300 INBA systems installed worldwide, Severstal's installations will represent the first application of this technology in Russia and another market breakthrough for Paul Wurth.

Headquartered in Luxembourg since its creation in 1870, the engineering company Paul Wurth is a leading technology provider and supplier of complete plants and facilities for the primary stage of integrated steelmaking. Besides its activities for the iron and steel industry, Paul Wurth is also specialized in the management and coordination of large civil construction and infrastructure projects. With about 1500 employees, Paul Wurth is active worldwide, operating entities and affiliated companies in the main iron and steelmaking regions of the world.