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Revamped EAF Started up in the U.S.A. Boasts Increased Safety and Productivity

- **New solution from Primetals Technologies results in increased safety and simplified maintenance processes**
- **Short ramp-up period – more than 20 heats per day after just four days**

U.S. steel producer NLMK Indiana has started up a 118-ton electric arc furnace, revamped by Primetals Technologies, at its steel plant in Portage, Indiana, U.S.A. The total shutdown time spanned six weeks until the first heat. Within four days, the furnace produced a remarkable 21 heats, and from then on it has showcased stable performance figures now surpassing the 5,000 heats mark.

The project was characterized by detailed preparation and planning as well as close collaboration during the implementation phase. This allowed for a smooth, fast, and successful startup.

Improved Reliability while Reducing Risk

A few years ago, NLMK Indiana wanted to increase safety and simplify the maintenance procedures executed by furnace operators at its Portage site. Two key aspects of Primetals Technologies' solution to tackle these challenges are a single-point roof-lifting system and an integrated gantry, both of which are carefully developed by experienced Primetals Technologies specialists. With this solution, operator safety in the context of replacing the delta or lifting off the roof is increased because there no longer is any need to physically access the furnace roof when disconnecting the chains.

The process of replacing the delta is faster compared to that done with the equipment the company used prior – it now lasts less than an hour. As a result, the EAF's maintenance-related downtime is lower, which in turn increases productivity.

A Solid Reference Base

Apart from the technological solution, NLMK Indiana chose Primetals Technologies as supplier mainly based on a solid reference base for comparable EAF revamp projects. The scope of supply included a new tilt frame, electric conductive arms, a roller bearing, a single-point roof-lifting system with an integrated gantry, a roof, and a hydraulic system, as well as a Level 1 automation system for the hydraulic system. Certain parts of the existing equipment, like the lower shell and the upper shell, were reused.

A part of NLMK USA, NLMK Indiana is a supplier of a variety of steel products, including hot-rolled as well as pickled and oiled steels. The steel plant is located close to the Port of Indiana at the shores of Lake Michigan. NLMK Indiana mainly serves the markets for pipe and tube manufacture, energy,

agriculture, construction, and automotive. With more than 1,100 employees, NLMK USA produces 2.7 million tons of steel annually in its three production facilities located in Pennsylvania and Indiana.



The 118-ton EAF, revamped by Primetals Technologies, at the first heat.



The project team consisting of NLMK Indiana and Primetals Technologies members.

This **press release** and a **press picture** are available at www.primetals.com/press/

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