

***ArcelorMittal Poland is commencing the start-up of the only blast furnace in Krakow's plant, which has just undergone a major overhaul***

*In order to meet the communication needs of the residents of Krakow, ArcelorMittal Poland would like to share the details regarding the start-up of blast furnace, which has just undergone a major overhaul.*

**The start-up procedure results in fugitive emissions, which are part of the technology. Emissions during the start-up of the installation are provided for in the Environmental Protection Law. The emissions, primarily of iron oxides, which are not harmful to human health, may occur periodically for 3-4 days. Due to their nature they are also very unlikely to travel long distance and ArcelorMittal Poland assumes that it will most probably be able to limit their impact to the area of Krakow plant.**

The only blast furnace in ArcelorMittal Poland's Krakow Unit has just undergone a major overhaul. This investment, whose value exceeds PLN 175 m, will significantly improve the unit's environmental footprint. The blast furnace will now have Europe's most modern cooling system and the two modernised electrostatic precipitators will reduce emissions into the air to levels compliant with limits coming into force only in 2018.

Blast furnace is an installation in which hot metal is made, which is then transported to the steel shop where steel is produced.

The start-up is going to commence in the late hours of July 31. The furnace will be loaded with coke and iron ore and then so-called hot blast will be released, which is air at the temperature of ca. 700 degrees Celsius. This is why steelmakers call this process "furnace blow-in". As a result of chemical process, hot metal will be produced.

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**Emissions expected during the start-up**

**Sunday night**

Within the first 4 hours from the start-up emission of primarily light fractions of coke may occur above the cast house.

### **Monday**

Hot metal, which will be produced during the first two to three tappings, will not be subject to further processing at the steel shop due to its properties. It will be poured onto the slag yard located near the steel shop. During the pouring process, iron is going to react with oxygen and iron oxides (e.g.  $\text{Fe}_2\text{O}_3$ ) will be produced. They will be visible in the form of dust emissions similar to rust-coloured smoke, which is not harmful to human health. We assume that this dust will to a great extent fall within the area of our Unit.

The hot metal poured onto the slag yard, after it has been cooled and crushed, is going to be used in the steel production process.

### **From Monday to Wednesday/Thursday**

Hot metal is tapped from the blast furnace into a torpedo ladle (with which it is transported onto the steel shop) through special chutes laid with refractory material, which by steelmakers are called runners. Those runners, during the normal operation of the furnace, are covered. The dust produced during tapping is evacuated into the electrostatic precipitator of the cast house.

Both modernized electrostatic precipitators, compliant with new BAT (best available technology) requirements, are going to operate from the very start of the blow-in procedure, but during the first tappings of the hot metal it will be necessary to clear them and this means that some of the covers will have to be removed, which will translate onto fugitive dust emissions visible over the cast house.

### **Tuesday-Thursday**

Following the start-up of the blast furnace the start-up of the steel shop will be commenced, which may result in insignificant periodical fugitive dust emissions.

### **Shielding the start-up process**

ArcelorMittal Poland will make each and every effort to reduce the environmental impact of the start-up process. The company has voluntarily established cooperation with the Institute of Environmental Engineering of the Polish Academy of Sciences (PAN) and the Institute of Meteorology and Water Management (IMGW). The objective of the cooperation with PAN is shielding the entire start-up process, which will consist in continuous monitoring of dust and gas concentration with the use of mobile measurement station equipped with automatic gas measurement devices. The cooperation with IMGW on the other hand will consist in determining the meteorological conditions.