

## Serbia mining: Copper company Bor, production and testing of new Sulphuric acid plant

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Last months' balance reads: 5,050 tons of anodes, 4,583 tons of cathodes and 24,000 tons of sulphuric acid. – For the purpose of increasing the production of anode and cathode copper, we will “keep” the hourly capacity of dry concentrate input into the flash-furnace between 60 and 62 tons, and daily processing at over 1,400 tons – Boban Todorović, Director of Copper Smelter and Refinery, said. – The start of using two more new metallurgical pots for matte has been planned for mid-April

Copper Smelter and Refinery – In the 27 days of March, the Smelter Plant received a total of 28,208 tons of wet copper concentrate, of which 9,220 tons from the Flotation “Veliki Krivelj”, 5,915 tons from the Flotation of the Copper Mine Majdanpek, 6,075 tons from the Flotation Bor (concentrate from Pit and Sag), as well as 7,000 tons from imports. In the delivered quantity of this raw material, there were 5,431 tons of “red” metal, the majority (1,510 tons) from the imported concentrate, 1,430 tons from “Veliki Krivelj”, 1,456 tons from Pit and Slag and 956 tons from the Copper Mine Majdanpek. The converter number three was in operation (“number four” has been overhauled and it is ready to start). In the anode refinery department, the casting machine number one was in operation, and the anode furnaces one and three were used to pick up the cast. The Smelter Plant processed a total of 25,000 tons of dry copper concentrate (1,060 tons per day on the average) and it produced 5,050 tons of anode copper. There are 4,600 tons of wet batch in stock these days.

– In January and February, we proved the designed processing capacity of the new Smelter Plant amounting to 400,000 tons of dry concentrate annually. We also tested the technological parameters (quality of liquid products, capacity of concentrate input into the dryer, flash-furnace, steam production) and all obtained results are in accordance with designed values. By “raising” the daily and annual concentrate processing, we intend to increase the production of anode and cathode copper. For this purpose, we will “keep” the hourly capacity of dry concentrate input into the FSF between 60 and 62 tons, and daily processing at over 1,400 tons. Considering that, last year, we operated with much lower FSF batching capacity, now, minor problems occur from time to time, which we overcome successfully. The targeted copper content in the matte is 62 percent (around 300 tons of matte are discharged every day), as well as three and a half converter operations per day. Our aim is minimal investment and, thereby, operation with one converter, with longer effective blowing time during day (converter makes pauses during batching and discharge). The converter department is “supported” by technologically sound equipment and all

produced anode copper will be cast through the casting machines one and two – Boban Todorović, Director of Copper Smelter and Refinery, said.

He adds that, in the following period, he will give priority to a complete fitting of the laboratory that is used for controlling the technological procedures of obtaining copper, as well as to additional equipment. There is an ongoing preparation for installing scales on cranes, owing to which accurate measurement of mass flows will be possible (the quantities entering and leaving the converter, as well as the difference created thereat). Another device for rapid determination of copper in matte should be commissioned in mid-April, and the start of using two more new metallurgical pots for transporting matte is also planned for this period.

The Sulphuric Acid Plant successfully “followed” the Smelter Plant operation and it produced 24,000 tons of sulphuric acid (the average gas content amounted to 10.5 percent). There are 7.500 tons of this product in stock these days. The Electrolytic Refining Plant, with 570 cells in operation, yielded 4,583 tons of cathode copper. Here, they expect to conclude the month with 5,100 tons of “red” metal. In the Jewelry, there is an ongoing campaign for precious metals production (the fourth this year) which should end on 22nd April. The production of copper sulphate also goes according to the planned schedule (three tons per day).

When it comes to metallurgical processing plants, in the Copper Wire Plant, the plant for sintered metallurgical products, which has contracted production by the end of this year, was in operation, as well as the fittings foundry in the Copper and Copper Alloys Foundry which manufactures special parts for industry.

The service plants of Copper Smelter and Refinery fulfilled their tasks successfully. The Power Plant served the needs of the technological process of obtaining copper in the Smelter Plant and the Electrolytic Refining Plant (heating the electrolytes). The level of water in the Lake of Bor is five centimeters at the overfall (the lake reservoir contains around 11.5 million cubic meters of water). Todorović emphasizes that, despite the current inflow, there is no danger of major inflow of water into the river Timok through the river Brestovac. In road transport, all activities of the Copper Smelter and Refinery Transport Plant were focused on transporting the concentrate (from Krivelj to Bor), lime and slag, and in rail transport, the focus was on transporting the concentrate from Majdanpek, as well as the sulphuric acid, transmits Serbia-energy.eu