

The results of comparative operation analysis of revitalized unit B1 show a large improvement compared to the results of unit B2, where the reconstruction was performed. After this reconstruction it was achieved a record daily production of 16.05 GWh. Article presents the results achieved during the six months rehabilitation and modernization of unit B1 in TPP “Nikola Tesla B” which increased the unit power at over 650 MW.

Units B1 and B2 in TPP “Nikola Tesla B” have 30 years of services with achieved over 210.000 operational hours in unit B1 and 196.000 hours in unit B2. The first revitalization and modernization phase of unit B1 included the following activities: installation of additional economizer with a new pipeline to supply the feed pump and replacement of the part of convective evaporator where evaporator tubes with increased inner diameter were built-in; setting water cannons for cleaning furnaces screen; embedding steam whistles in convective part and in the rotary air heaters.

Installation of additional economizer provided a significant increase in strength and usefulness of unit B1. With aforementioned measures it was increased the gross power of unit B1 with project values of 620 MW to over 650 MW. After this reconstruction the unit B1 achieved a record daily production on 29<sup>th</sup> January 2013<sup>th</sup> of 16.050.000 kWh of electricity with average gross output of 669 MWe and thus exceeded the record set even in 1985<sup>th</sup>. Revitalized unit B1 works with two lines of feed water heater where the flue gas temperature at the boiler outlet is lower for 20 ° C of adequate temperature in the unit B2 that works only with one line of feed water heater.

The positive results of this reconstruction phase indicates that further activities in TPP “Nikola Tesla 2” should include the implementation of the same revitalization and modernization phase in unit B2, as well as the implementation of the second reconstruction phase of these two steam block.

Source; Serbia Energy