

In the period from 2005 up until now, a number of projects and studies have been developed, regarding the development of coal and overburden exploitation in the “Stanari” basin.

All projects have one common goal, and that is the real picture of the beginning of construction of “Stanari” TPP”, and its commissioning.

On behalf of EFT RITE “Stanari”, Republika Srpska, Tatjana Blagojevic and Milan Stojakovic, on the XI International Conference on surface mining – OMC 2014, presented an expert paper: “Overview of current coal investigations in Ostruznja deposit, in “Stanari” basin”, that deal with this issue.

“Stanari” coal basin is located 20 km west from Doboj on Krnjin Mountain area, between the rivers Ukrina, Usora and Bosna. Ostruznja River divides the basin on the north and south part. The northern part of the basin represents deposit Raskovac. The southern part of the basin is the Ostruznja deposit.

The authors explain that coal supply of “Stanari” will be carried out in two phases. In the first phase, as remarked, the supply will be carried out from the Raskovac deposit, and after this deposit will be mined out, the supply would be passed to the second phase and it would be from Ostruznja deposit.

Hence, they point out, the greatest significance for the continued operation of power plant in the second phase, is the excavation and supply of coal from deposits Ostruznja, all aimed at a well-researched deposit, established coal quality and reserves.

General assessment of the results of researches up until now, and level of exploration of Ostruznja deposit, as the authors state that, is that is necessary to have database for defining of geotechnical exploitation conditions on the Ostruznja deposit.

The conclusion is suggested, that the basic aim of the conducted geological exploration to 2005, was to determine the reserves and coal quality. Geotechnical studies have implemented by plan, from 2000, but in a spatial sense, this researches are unsatisfactory, as emphasized in the paper.

The authors explain the fact that the exploitation of coal in the Raskovac deposit, where geotechnical conditions are similar, takes place without major problems in terms of slope stability, subsidence of the terrain, and, it does not mean that the situation is ideal.

The detailed examination and analysis of the available documentation, made them to conclude that in certain zones of Ostruznja deposit, geotechnical conditions of exploitation would be much more complicated.

This complexity is reflected in the considerable number of bands within coal series by unfavorable clay bands, and thus increasing the height of the slope in such environments.

According to the investigation data, it was found that the possibility of coal series increases towards the west and central southern parts of the deposit, so in the far western part of the deposit it amounts to 36.25 m.

In such conditions, where clay bands are present, whose strength decreases considerably in the presence of water, the authors point out that it is very important that hydrogeological conditions on the terrain to be accurately defined.

They warn that all these facts require a serious approach to geotechnical problems, because any mistakes could have serious consequences.

The paper especially points the fact that the investigations of the earlier research phase, in sense of location were designed according to current needs, and in northern areas where underground exploitation was carried out and where there have been attempts of surface mining beginning.

Thus, the authors conclude that the Ostruznja deposit, within the exploitation contours, in geotechnical terms, is insufficiently and unevenly explored.

Results of previous researches have also, according to the authors, stressed the need for detailed research of Ostruznja deposit, which will monitor laboratory testing of coal and sediments.

Also, they say, it is necessary to provide creation of monitoring wells and sampling the core for geotechnical testing purposes.

In the upcoming period, it is planned to do the project detailed geological exploration at the deposit Ostuznja, covering its western and central part.

The study would be performed in phases in the upcoming years.

Based on the carried out investigations, coal reserves, quality and geotechnical conditions of excavation in certain parts of the deposits, would be determined.