

Completion of implementation of three packages of the Project for procurement of ECS system is expected by the end of July.

FAM is engaged for this project as contractor for production of equipment for new landfill. Spreader for interburden which, after being mounted, will operate in the open cast mine "Tamnava - West Field" will be the biggest in the region.

Mining basin "Kolubara" implements "green" project as a part of intensive investment cycle in the "Electric Power Industry of Serbia", and it represents procurement of new equipment which will provide safe supply of lignite to thermal power plants and compliance with regulations in the field of environmental protection. Value of the entire Project

"Environmental Protection and Improvement in Kolubara Mining Basin" amounts to 181 million euros. It is financed from the loans of the European Bank for Reconstruction and Development EBRD, German Development Bank KfW, 65 million euros, with the assistance of German Government and participation of the "Electric Power Industry of Serbia".

The "green" project will improve technology of coal excavation, provide equal quality of lignite in MB "Kolubara", the utilization of which will enable the improvement of operational efficiency of thermal power plants. All these will result in reduction of adverse impacts upon the environment.

Project A, procurement of ECS system for production of overburden for open cast mine Field "C" will be financed from EBRD proceeds. Within ECS system procurement, a spreader of the value of almost 15 million euros, manufactured by the experts from Austrian company "Sandvik", of capacity of 8.800 m<sup>3</sup>/h, was transported to the open cast mine at the beginning of April. The spreader is integrated in the system of belt conveyors with used excavator.

According to the words of Dobrivoje Stefanović, Project Manager in the name of PEEPS, after connection into the system and after the period of optimization with the material, the system was put in trial operation on 19th May. The result of time availability test of spreader, conveyor and supply was remarkable, with more than 96 % of time availability. Completion of realization of three packages of the project for procurement of ECS system is expected at the end of July.

Delivery of technical documents under the contract, elimination of objections of the Committee for technical acceptance, as well as connection of the dust protection system remained to be done - said Stefanovic.

He has also emphasized that the works related to mounting of bucket-wheel excavator are actual at the moment, and after integration of the excavator into operation, the ECS system will be completed. The bucket-wheel excavator of capacity of 6.600 m<sup>3</sup>/h is the

subject of the package A1.

Value of the excavator is around 31 million euros, and the contractor is a German company "Tisen Krup".

According to Tomislav Pajić, Excavator Project Manager, intensive works related to excavator mounting on the erection yard in Zeoke are ongoing. - The work is organized even during weekends in two shifts and around 150 "Metal" workers are employed to work on the erection yard itself.

Beside our workers, representatives of "Tisen Krup", as the contractor, "Simens" company representatives, as subcontractors for electrical works, and representatives of other subcontractors are also constantly present.

Due to increased volume and intensity of work, as well as due to the large number of workers on the site, the level of protection and safety at work is also increased - said Pajić. All vital parts of the structure are mounted on the excavator.

Upon completion of installation of the machinery and the first tests on the erection yard, the excavator is expected to be put in transportation toward the open cast mine in the first half of September.

As scheduled, the complete system for production of overburden should be completed until the end of 2016. Within the project of procurement and installation of ECS system for open cast mine Field "C", special attention is paid to elimination of adverse effects of noise and dust to environment and local population. Monitoring of all such influences with complete analysis of measuring results has been planned.

Project B, procurement of spreader for interburden for open cast mine "Tamnava - Westfield" and Project C, coal quality management and control in this open cast mine are foreseen within the Project "Energy Efficiency through Ecological System for Coal Quality Management in MB Kolubara", financed from the loan proceeds and the KfW bank loan.

According to Darko Danicic, Project Manager for implementation of Project C, training of MB "Kolubara" employees in German mines is organized during June. - Training of engineers who will work in new plant is intensified.

Three groups consisting of five employees each are foreseen for training in Mibrag open cast mines.

These engineers have possibility to pass through the entire coal homogenization process into two open cast mines of Mibrag with reference to specific features we may face related to operation of our landfill.

Two groups are trained during June, and the third one will go to Mibrag in September - said

Danicic.

As far as implementation of the Project B is concerned, the value of which is 18.8 million euros, procurement of spreader for interburden of capacity of 12,000 m<sup>3</sup>/h, factory acceptance test of the structure and quality acceptance test of the equipment are ongoing.

The installation of the spreader will start when new crane Derik receives test certificate. "Sandvik" is the contractor in this Project, and the spreader will run in the open cast mine "West Field" and will be the biggest one in the region.

There are three packages being realized within the Project C. Package C1, in the value of around 4.8 million euros, comprises procurement of hardware and software for the coal quality management system in the open cast mine "Tamnava-West Field". ABB, the contractor, is currently working on the base engineering and harmonization is expected during July.

Performance of infrastructure works for the construction of new coal landfill in Tamnava open cast mines is subject of the package C2.

Value of these works is 15.5 million euros and contractor is the consortium comprised of "Energoprojekt Oprema" and "Planum".

Intensive overview of documents for steel structure and preparatory works on the site are ongoing. For the package C3, equipment for the landfill, in the value of around 29.2 million euros, a contract was signed with FAM company, and the contractor is engaged for the project.

Preparation of the base engineering and harmonization is expected in the first half of September 2016. N. Živković Excavator in numbers Bucket-wheel excavator, which is currently being installed, will have excavation capacity of 6,600 m<sup>3</sup>/h. After its integration into ECS system, it will start with excavation.

Total length of the excavator is 174 m, it weights around 3,500 t and it is around 40 m high. Diameter of drive wheel is 12.25 m. Maximum height of the excavation is 28 m, and the depth is three meters.

AF Coal Landfill Capacity of a new landfill in Tamnava open cast mines will be 400,000 t of coal, which is double the current quantity, and this will be small grain size coal landfill.

Procurement of three big machines for the landfill - one rail spreader for coal disposal of capacity of 5,000 t/h and two reclaimers of capacity of 2,500 t/h for preparation of the mixture of required calorific value is foreseen.

In addition to these large machines, procurement of two primary and two secondary crushers, 16 conveyors with belt width of 1.6 up to two meters, metal parts

separating magnets, cranes, lifts and dust collectors is also planned.