

A group of experts from EFT - Rudnik and Stanari Thermal Power Plant located in the Republic of Srpska presented a paper analysing the disposal of solid combustion residue from the Stanari TPP into Cassette 1.

Construction of the Stanari Thermal Power Plant began in 2013.

Under the construction schedule, works will be completed and the plant put into trial operation in the fourth quarter of 2015, while in the next year it will be fully commissioned. Before the thermal power plant is commissioned, sufficient overburden and coal amounts need to be removed and produced at the Raskovac open cast mine and conditions created to develop the first cassette intended for the disposal of the solid combustion residue.

Disposal to Cassette 1 will run in three phases for a period of four years. Cassette 1 area is 8.5 hectares, while its total volume is 900,000 cubic meters.

Combustion of lignite originating from the Stanari Coal Basin in the fluidized bed of the Stanari TPP boiler will, in addition to fly ash from the bag filter, produce coarse-grained ash from the bottom of the CFB boiler furnace, which is collected after passing through the post-combustion grate of the boiler.

The time schedule of the necessary actions has been harmonised, because it is essential to ensure smooth overburden removal and coal production operations without interrupting the ash disposal operations, thus providing uninterrupted coal supply to the thermal power plant and creating conditions to form the space necessary for ash disposal cassettes.

The material disposed in Cassette 1 will be isolated from external impacts by installing an impermeable liner. After the landfill has been closed, all flat and inclined surfaces will be stabilized and re-cultivated. The re-cultivation solution involves top soil layer backfilling and grass layer formation by sowing grass-clover mixtures.

Along with the formation of certain slopes and berms at the ash landfill, technical and biological re-cultivation of these areas will also be initiated. This means that, once the slopes and dam crest have been formed for the first ash disposal level inside the cassette, these areas can be re-cultivated. Total re-cultivation area is 5.85 hectares.