Development of a Pilot Plant for Reduction Hg Emission from Large Power Plant.

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DEVELOPMENT OF A PILOT PLANT FOR REDUCTION Hg EMISSION FROM LARGE POWER PLANT

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This paper deals with the research project "The development of the pilot plant for monitoring of the mercury emissions reduction from large and medium capacity energy sources". The project responds to currently incoming EU legislation BAT, which sets emission limits of mercury concentration in flue gases. In this paper are presented project results reached in the year 2016. The main goals of the project in the year 2016 were design and construction of the pilot plant unit followed by consequent successful commissioning at the Tusimice Power Station. The designed pilot unit processes flue gases from combustion of lignite and the principle of operation is based on oxidation of atomic form Hg^0 to oxidized form Hg^{2+} using catalyst. Also a set of experimental measurements were done on the pilot unit, thus first results of experimental work are presented. Another part represents data of Hg distribution in large scale lignite and coal fired power plants gained by measurement tests.