METHODS THAT ALLOW SIMULTANEOUSLY TO REDUCE EMISSIONSOXIDES OF NITROGEN AND SULFUR DIOXIDE

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Scientific and technical materials on this topic indicate that there are a number of technological processes that make it possible to reduce the concentration both in products of combustion of fuel. This topic is devoted to the monograph "Improvement and optimization of models, processes, constructions and operating modes of power equipment of AES, TES and heating boiler houses", edited by prof. A. Yefimov. Typically, the following sulfur purification processes are offered: using as a catalyst and with additional introduction in flue gases. The efficiency of such technologies is quite high; they allow to provide 90-95% of flue gas cleaning and 75-80% of cleaning from. At the same time, they give the opportunity to receive commercial products in the form of 80% sulfuric acid and 50% nitric acid. It is necessary to pay attention to the promising electron beam technology for the treatment of flue gases from TES from and from ash developed by the "Energostal" (Kharkov) for the purpose of implementation at the Slavyanskaya HES, which allows to reduce emissions of nitrogen oxides and oxides by 85-95% sulfur and get marketable products in the form of ammonium fertilizers. An interesting technology for the simultaneous cleaning of flue gases is the ozone-ammonia method. The process involves the oxidation of nitrogen oxide in the gas phase with ozone to dioxide, after which the flue gas is irrigated with a solution of limestone or ammonia in the reactor. The method allows a degree of purification of 90% and 75%.Techno-economic comparison of various technologies of sulfur purification of flue gases allows us to conclude that the advantage of bonding should be given to wet limestone technology, but this technology also has the highest specific capital expenditures. The cost of removing from flue gases is the highest when using wet-dry technology (for combustion of fuel with sulfur content from 0.5% to 2%).