



Research regarding the feasibility evaluation of flue gas desulfurization technology (FGD) from energetic complex Craiova s.a., according with the U.E. regulation

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Flue gas desulfurization (FGD) is the current state-of-the art technology used for removing sulfur dioxide (SO_2) from the exhaust flue gases in power plants that burn coal or oil to produce steam for the steam turbines that drive their electricity generators. Sulfur dioxide is responsible for acid rain formation. Tall flue gas stacks disperse the emissions by diluting the pollutants in ambient air and transporting them to other regions. Sulfur dioxide exhaust should be removed, rather than emitted high into the atmosphere where it affects many more people. A number of countries now have regulations limiting the height of flue gas stacks. As a result of stringent environmental protection regulations regarding SO_2 emissions that have been enacted in a great many countries, SO_2 is now being removed from flue gases by a variety of methods: wet scrubbing using a slurry of sorbent, usually limestone or lime, to scrub the gases; spray-dry scrubbing using similar sorbent slurries; dry sorbent injection systems. For a typical coal-fired power station, FGD will remove 95 percent or more of the SO_2 in the flue gases. The goal of this research is represented by the toxic emission of the combustion plants, resulted from the technologic processes, meaning SO_2 , witch overcomes the 400 mg/Nmc values, level imposed by the European Parliament by Directive 2001/80/EC. If this directive is not respected, then the large combustion plants from Oltenia area: CET Ișalnița, CET Șimnic and CET Turceni will be closed. Thus, was carried out a feasibility study which initial included 12 projects with advantages and disadvantages for the Oltenia area. Following of evaluation criteria, it was choose the conceptual project on forcing oxidation bases of wet chalk; the product resulted from desulfurization being the gypsum (FGD technology).