The Reduction Of Gas Phase Air Toxics From Combustion And Incineration Sources Using The MET-Mitsui-BF Activated Coke Process

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ABSTRACT

The dry desulfurization, denitification and air toxics removal process using activated coke (AC) was originally researched and developed during the 1960's by Bergbau Forschung (BF)[1], now called Deutsche Montan Technologies. Mitsui Mining Company (MMC) signed a licensing agreement with BF in 1982 to investigate, test and adapt the system to facilities in Japan. Japanese regulations are stricter than in the United States toward SOx /NOx pollutants, as well as flyash emissions from the utility industry, oil refineries and other industries. This process is installed on four coal-fired boilers and Fluidized Catalytic Cracker (FCC) units. These plants were constructed by MMC in Japan and Uhde GmbH in Germany.

Marsulex Environmental Technologies LLC (MET), formerly GE Environmental Systems (GEESI), signed a license agreement in 1992 with MMC and Mitsui and Company, Ltd. Of Tokyo. Under this agreement, MET will market, design, fabricate and install the Mitsui-BF process for flue gas cleaning applications in North America. MMC also developed a technology to produce AC used in the dry DeSOx/DeNOx/Air Toxics removal process based on their own metallurgical coke manufacturing technology. This paper provides information on the details of MMC's AC used in the dry DeSOx/DeNOx/Air Toxics removal process and of the DeSOx/DeNOx/Air Toxics removal process itself.