

China Desulphurization Equipment Industry Report, 2007

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Abstracts

China plans to invest RMB 1.375 trillion in social environmental protection during the 11th Five-Year Plan period, of which approximately 10% or RMB 137.5 billion is going to flue gas desulphurization (FGD), according to State Environmental Protection Administration of China. Presently, the installed capacity of desulphurization facilities that established or being established reached about 13.3 Million kW, accounting for 3.61% of 36,800 Million kW of the total of thermal power.

Currently, 90% of SO₂ emission and 70% of NO_x emission are produced from coal burning, 50% of which is from coal power plants. The data showed that total SO₂ emission of China's thermal power industry reached 11 million tons and 13 million tons in 2003 and 2004 respectively and, the figure approached 16 million tons in 2005. In 2005, China issued Decision on Implementing the Scientific Concept of Development and Stepping up Environmental Protection by the State Council, which sets the goal for China's environmental protection in the next five to fifteen years, and brings along desulphurization industry with new development opportunities.

By the end of 2005, the operated FGD unit capacity rose from 5 million kW at the end of 2000 to 53 million kW, accounting for some 14% of thermal power installed capacity, of which, unit of 100,000 kW and above reached 44 million kW. FGD installed capacity under the construction would exceed 100 Million kW.

Being lack of industrial standards and laws & regulations plus low threshold, a lot of medium- and small-scale enterprises (number of which increase from 2 in 2001 to 200 in 2006) compete maliciously in the market by price war, which resulted in the gross margin of desulphurization industry dives steeply.

As social economy has been developing, SO₂ emission of thermal power industry will share an increasingly higher proportion in national total SO₂ emission. In a country dominated by thermal power, the proportion of SO₂ emission of thermal power to national total SO₂ emission can indicate whether or not environmental protection of this country is good. The current proportion in China is equal to the late 1960s or early 1970s of the US, UK, or former Federal Republic of Germany.

Strengthening the control over low level sources is an important measure to promote air quality. By 2020, China will resolve the problems of SO₂ pollution entirely and SO₂ emission will be limited within 12 million tons nationwide; the proportion of SO₂ emission of thermal power is expected to account for 55% of total SO₂ emission (6-7 million tons).

According to current environmental policies, by 2020, installed power generation capacity will reach 800 million kW, of which, the thermal power will account for 70%-75%. To achieve the goal of SO₂ control of power industry, FGD capacity of coal unit needs to reach 350 million kW nationwide; static investment alone is as high as RMB 140 billion and annual operating costs will reach around RMB 35 billion.

If carrying out pollution discharge right trading policy and installing FGD on high-sulfur-coal-fired bit units, FGD capacity can be reduced to 150-180 Million kW under the precondition of meeting the same environmental standard, which is the same as or a little bit higher than the US FGD capacity. In this way, investment and operating costs can fall at a half, saving static investment of RMB 70-80 billion and annual operating costs of RMB 15-20 billion.

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