

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.

Contents

- 1 Overview of China desulphurization industry
 - 1.1 Characteristics of SO₂ and NO_x emission
 - 1.1.1 Characteristics and hazards of SO₂ and NO_x
 - 1.1.2 Status of SO₂ and NO_x emission
 - 1.1.3 Distribution characteristics of SO₂, NO_x and acid rain in China
 - 1.1.4 Pollutions caused by SO₂, NO_x and acid rain
 - 1.2 Policies, laws and regulations on the control over NO_x pollution
 - 1.2.1 Law on Prevention of Air Pollution
 - 1.2.2 The Outline of the Eleventh Five-Year Plan for National Economic and Social Development
 - 1.2.3 China Trans-Century Green Engineering Program
 - 1.2.4 Program on major cities suffering air pollution
 - 1.2.5 Acid rain and NO_x control zones and pollution prevention program in the two control zones
 - 1.2.6 Pollution discharge fee system and pollution discharge permit system
 - 1.2.7 Key measures on controlling SO₂ and acid rain in China
 - 1.2.8 Technology policies on desulphurization industrialization
 - 1.3 Environmental standard on SO₂ and NO_x
 - 1.4 Review of China desulphurization industry
 - 1.5 Analysis of industries associated with desulphurization industry
 - 1.5.1 Steel & iron industry
 - 1.5.2 Power station construction
 - 1.6 Development characteristics of China FGD industry
- 2 Overview of global desulphurization industry
 - 2.1 Germany
 - 2.1.1 Applications of FGD devices
 - 2.1.2 Production
 - 2.2 The US
 - 2.2.1 Applications of FGD devices
 - 2.2.2 Production
 - 2.3 Overview of overseas FGD technologies
 - 2.3.1 Wet FGD process
 - 2.3.2 Semidry FGD process
 - 2.3.3 Dry desulphurization process
 - 2.4 Global key environmental desulphurization enterprises
 - 2.4.1 ABB

2.4.2 Mitsubishi Heavy

2.4.3 Hitachi

2.4.4 SDEC

2.4.5 Fortum

2.4.6 LLB

3 Economic operations of China desulphurization industry

3.1 Output analysis

3.1.1 Total output

3.1.2 Output of leading enterprises

3.2 Profitability

3.2.1 Operating margin

3.2.2 Return on assets

3.3 Price analysis

3.3.1 Review of price trend

3.3.2 Causes for price forming

3.4 Market competition

4 Overview of China FGD devices supply

4.1 Market status of enterprises by ownership

4.1.1 Foreign-owned enterprises

4.1.2 China's domestic enterprises

4.2 Technology introduction of different producers

4.3 Operations of FGD devices in China

4.4 Typical case study on FGD cost

5 Overview of desulphurization technologies

5.1 Plaster FGD

5.2 SDA-FGD

5.3 PAFP-FGD

5.4 LIFAC-FGD

5.5 CFB-FGD

5.6 Seawater desulphurization technology

5.7 EB desulphurization technology

5.8 Ammonia-washing desulphurization technology

6 Leading enterprises of China desulphurization industry

6.1 Beijing SP Longyuan Environmental Protection Engineering Co., Ltd

6.2 Wuhan Kaidi Electric Power Environmental Protection Co., Ltd

- 6.3 Beijing Bootes Electric Power Sci-Tec Co., Ltd
- 6.4 CPI Yuanda Environmental-Protection Engineering Co., Ltd
- 6.5 Zhejiang Tiandi Environmental Protection Engineering Co., Ltd
- 6.6 Jiangsu Suyuan Environmental Protection Engineering Co. Ltd
- 6.7 China Huadian Engineering Co., Ltd
- 6.8 Guohua Ebara Environmental Engineering Co., Ltd
- 6.9 Beijing SPC Environmental Protection Tech Engineering Co., Ltd

7 Forecast of demands for desulphurization facilities in China

- 7.1 SO₂ emission of thermal power industry
- 7.2 SO₂ control objectives of thermal power industry
- 7.3 FGD capacity of thermal power plants
 - 7.3.1 Forecasted FGD capacity according to current policies of China
 - 7.3.2 Forecasted FGD capacity according to pollution discharge right trading policies
- 7.4 Forecast of demands of thermal power plants of China for desulphurization facilities

8 Suggestions on investment in desulphurization industry of China

- 8.1 Problems in China desulphurization industry
- 8.2 Advantages of China FGD industry
- 8.3 Opportunities and risks of China FGD industry

Tables/Figures

Basic information about FGD demonstration projects of thermal power plants in China

Comparison of desulphurization technologies

Qualitative comparison of FGD devices

Technology performance of six different FGD demonstration projects in China

Air quality in China, 2000-2006

Emission of major pollutant in exhaust gas in China in recent years

Resource-centered utilization of desulphurization slag

Current production technology of desulphurization gypsum

Desulphurization companies with contract capacity over 4000MW and operation capacity over 200MW

Sales of Wuhan Kaidi Electric Power Environmental Protection Co., Ltd, 2006

Regional sales of Wuhan Kaidi Electric Power Environmental Protection Co., Ltd, 2006

Sales of LONGKING by region, 2006

Proportion of SO₂ produced by electric power industry to total emission in the US

Forecast of objective on SO₂ control of electric power industry in China

Overview of electric power industry in China and the US

FGD system of thermal power plants of the US

Output of equipments for controlling air pollution in China, 2001-2006

Regional output of equipments for controlling air pollution in China, 2001-2006

China's desulphurization facilities industry, 2006

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