

## **Regulation Policy Direction for EMM Industry**

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Our EMM industry develops quickly in recent years. Since 2008, China's EMM capacity has been 1,878,600 tons, and the quantity of manufacturers has been about 200. In 2009, the EMM capacity was 2,100,000 tons, and the output was 1,290,000 tons. In 2010, because of the energy reduction targets and a serious shortage of electricity, the output declined, but also reached 1,250,000 tons. EMM becomes the No. 1 in the world. To the whole steel industry, EMM only has a very small proportion, but it is far more important than its own weight at the national level. In the past few years, the relevant actions and policies in the country of EMM industry are the followings:

In 2005, the National Environmental Protection Administration began the national policy leading of EMM industry after the “pollution repair of EMM industry in Hunan, Guizhou and Chongqing provinces”. In 2006, to promote the healthy development of EMM industry, according to the industry construction, effective competition, low material consumption and production safety and environmental protection principles, NDRC first released “the EMM industry access conditions”. There are five quarters of the demands for technology and equipment, environmental

protection, consumption of energy resources, environmental and production facilities. In 2008, the access conditions were improved.

In 2006, there were 33 enterprises permitted to access, and the scale was 371,111 tons. Among them, 18 in Hunan, the capacity was 192,100 tons; 2 in Guangxi, the capacity was 28,000 tons; 1 in Sichuan, the capacity was 6,000 tons; 10 in Guizhou, the capacity was 124,000 tons; 2 in Chongqing, the capacity was 21,000 tons.

In 2008, there were 70 enterprises permitted to access, and the capacity was 761,600 tons. Among them, 27 in Hunan, the capacity was 213,400 tons; 8 in Guangxi, the capacity was 148,000 tons; 15 in Guizhou, the capacity was 110,200 tons; 18 in Chongqing, the capacity was 220,000 tons; 1 in Ningxia, the capacity was 60,000 tons; 1 in Shanxi, the capacity was 10,000 tons. The first and second batch enterprises quantity was 103, and the total capacity was 1,132,700 tons, respectively 52% and 53% of EMM entrepreneurs quantity and capacity.

In 2007, the People's Republic of China NDRC released No. 63 announcement. It released "EMM industry cleaning producing appraisal target system". The system completely specified the EMM production processes and procedures control from the quality and quantity. The indicator system was included in the EMM industry access conditions. In

the same year, “EMM industry cleaning producing standards” was released by National Environmental Protection Administration. It defined the EMM cleaning producing targets.

In February, 2010, the industry and information department released “EMM industry cleaning producing technical implementation”. In May, the industry and information department entrusted National Manganese Industry Technical Committee to examine the EMM cleaning producing special applications.

The program will be included “the technology that the section of continuous throwing & dripping and backwash after EMM electrolytic and automatic control, sec acid leach and filter & press of the pickle-liquor of manganese powder integrating technology, manganese slag brick technology in EMM industry, the technology of recycling Cr-Mn ion from EMM wastewater, efficiently enrich the low-grade manganese ore technology and slag utilization technology ” in the national cleaner production demonstration projects. "A new, environmentally friendly, energy-saving cell" included in the national promotion of cleaner production technologies.

In 2010, National Environmental Protection Administration released “EMM enterprises environmental monitoring work guide”. The guide was "manganese triangle EMM industry pollutes regulation". The guide is an extension of acceptance in other parts of the country.

The environmental protection administrative department of environmental monitoring agency supervise, inspect and process to fulfill the EMM corporations according to relevant laws and regulations, policies and regulations. 55 EMM corporations were found in the monitoring and require rectification.

In 2010, the [2010] No.150 document of environmental protection department released “ the Technology of Preventive Treatment Pollution in EMM Industry”, It stipulate the stress preventive treat chromium, selenium, manganese, ammonia nitrogen ache brume, industry dust, manganese dregs, anode, vulcanizing dregs, and chromium dregs. Except the depurating manufacture requirement, the document suggested the consumption of selenium oxygenation on per EMM would be below 1.2 kg before 2013. After 2013, the EMM industry progressively enforces electrolysis without passivation, chrome passivation & selenium passivation. Enterprises should install the installation of

polishing process waste water to strip the ammonia nitrogen and adopt the technology of Cyc impose the ammonia nitrogen.

Increasing some supervise provisions , such as strengthen to examine and verify of the coerced clean produce in EMM mills; estimate the circumstance quality around the EMM mills & manganese dregs ground which apply to close; regularly tail after the closed manganese dregs ground to monitor the circumstance quality; press the enterprises to resume round zoology.

On September 2010, the industry and information department released “the Catalogue of Structural Readjustment in the Steel Industry”. The EMM part of the catalogue stipulates that:

Washing out:

1 、 reflecting furnace of reduction manganese dioxide (manganese sulfate mills’ reverberator, mine powder mills’ reverberator)

2、 frame & chest pressure filter of linear press& filter EMM (besides the high pressure septum pressure filter )

3、 (at the end of 2011 ) the commutate transformer under 5000 kilovolt-ampere (Inc 5000) of EMM & the chemical combination

under 150 stere (Inc 150) of EMM

4、(at the end of 2014) the commutate transformer (5000-6000 kilovolt-ampere) of EMM; the chemical combination (150-170 stere) of EMM

On December 2010, the industry and information department released the assignment on “the Programming of Structural Readjustment in EMM Industry”. It would accomplish on August 2011. The National Manganese Industry Technical Committee will organize the specialists to survey and solicit the advisements from the domestic EMM producing unit. If the present want to give the advisements, please interflow with us after the conference.

National policy has been published one after another. It plays a role in promoting development in EMM industry, and with the implementation of policy step by step, we can foresee the future of the EMM industry being on the following direction :

1, the overall level increases steadily

Since 2005, “Hunan, Guizhou and Chongqing, three provinces of the EMM industry polluted realignment” had been begun, and the technology and equipment, environmental protection, resources, energy consumption,

and production safety facilities of EMM industry had a comprehensive promotion. Many new technology and equipment have been popularized, particularly at the "energy conservation", "reducing the consumption" and "decreasing the contamination" aspects having been achieved good results.

## 2, development towards large-scale mode and group mode

With the development of technique in the past few years, the EMM production equipments have been developed to the large-scale mode. The largest capacity of chemical combination has been 500 m<sup>3</sup>, and the electrolytic tank and press filter device have also been developed to the large-scale mode. At present, the quantity of enterprises about 10000t/a single production scale has been more and more. By merging and restructuring, a single enterprise production scale constantly expanding, the largest enterprise's scale has been 170,000 tons. Not only increases the ability of risk resistance and innovation of technology, but also increases the power of discourse.

## 3, improvement of product design, development towards competitive products mode

In the past period of time, the EMM products are unitary, and 99%

enterprises' productions are concerned at the C level of YB/T051 -2003.

With technical progress and market development, all levels of products of low selenium, low silicon and low sulphur are constantly emerging. The products have continuously developed towards competitive products mode and up-market mode.

4, strengthening the basic research and improving the utilization rate of resources

Over the past few years of rapid development, engineers and technicians of concerning the manganese are more and more. The research work of low tastes manganese ore has also achieved certain progress. Both strong magnetic elected and flotation has scored some achievements.

Generally speaking, the implementation of energy saving and decreasing the consumption, increasing the level of technology and management, achieving the maximum profit, being not only national policy, it is against the current financial crisis, the actual metal manganese industry effective way. Let us work together, and do the work of great significance.