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PEOPLE'S REPUBLIC OF CHINA**

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**Guide for the energy efficiency assessment of the sintering
process**

烧结工序能效评估导则

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard is proposed by China Iron and Steel Association. This standard by the National Standardization Technical Committee Steel (SAC/TC183) centralized. This standard was drafted by: MCC Tiantian International Engineering Co., Ltd., Metallurgical Industry Information Standards Institute, MCC Southern Engineering and Technology Co., Ltd., Hunan Hualing Xiangtan Iron and Steel Co., Ltd., Jinan Iron and Steel Group International Engineering Technology Co., Ltd., Anshan Iron and Steel Group Mining Co., Ltd. The main drafters of this standard. Hu Bing, He Guoqiang, Ye Hengdi, Chen Yi Yuan, Wang Zhao, Wang Jiang Wei, Qiu Jinhui, Sun Ying, Wang Ju Xiang, He Xinhua, Zhu Xiaochun, Li Zongping, Xu Hailun, Shao Yuanjing, Zou Fanqiu, Zhao reform, Li Bing, Wang Changjin, Gao Jingjun, Shi Chunli, Gao Junchi. Sintering process energy efficiency evaluation guidelines

1 Scope

China's national guide to assessing the energy efficiency of the iron ore sintering process. It specifies the terms and definitions, the basic principles, the assessment steps, the boundaries and energy consumption accounting, the baseline and actual energy consumption, the energy efficiency indicators, the analysis and the optimisation measures. Sintering is what turns fine iron ore into a lumpy porous feed the blast furnace can use: the fines are mixed with coke breeze and flux, spread on a moving grate, and ignited at the surface, and the burning front is drawn down through the bed by suction, fusing the particles as it goes. It is the second largest energy consumer in an integrated works after the blast furnace itself, and it is the largest source of the plant's dust, sulfur oxides and dioxins. Efficiency here is unusually entangled with emissions: the waste gas leaves at a temperature worth recovering, and whether that heat is recovered depends on equipment installed for environmental reasons. The standard fixes the boundary and the accounting so that the two questions can be answered separately.

This standard specifies the sintering process efficiency evaluation terms and definitions, basic principles, assessment steps, boundaries and energy consumption statistics, the benchmark energy Consumption, actual energy consumption, energy efficiency index, energy efficiency analysis and energy efficiency optimization measures. This standard applies to the steel business sintering process energy efficiency assessment and analysis of energy saving potential.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 15316 energy-saving monitoring techniques

GB 17167 energy-using units of energy measurement equipment and management of general rules

GB/T 21368 Iron and steel enterprises energy measurement equipment and management requirements

GB/T 23331 energy management system requirements

GB/T 28924 steel enterprise energy efficiency index calculation guide

3 Terms and definitions

GB/T 23331 and GB/T 28924 defined by the following terms and definitions apply to this document.

3.1 Modified baseline energy consumption modifiedbenchmarkofenergyconsumption Taking into account the actual objective situation of the assessment object, the benchmark energy consumption per unit of product after the revision of the benchmark energy consumption.

4 Basic principles

The energy efficiency evaluation of the sintering process should follow the following basic principles.

- a) The principle of lawful compliance The object of assessment should be consistent with national laws and regulations, in line with the requirements of the steel industry policy, in line with the relevant energy-saving emission reduction Standard requirements
- b) The principle of efficient use of energy to promote the efficient use of energy and rational allocation, encourage enterprises to adopt advanced energy-saving technologies or management measures, Improve low-energy production links;

c) highlight the key principles should focus on inspection of key energy consumption and energy-saving potential of key processes and equipment, focusing on the analysis of energy efficiency major factor;

d) The principle of scientific and reasonable should be within the conditions permit, excluding the impact of incomparable factors to ensure the comparability of assessment indicators and evaluation The rationality of price analysis.

5 Evaluation steps

Sintering process energy efficiency assessment should include but not limited to the following steps.