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Test method for the static air leakage rate of iron ore sintering systems

铁矿烧结系统静态漏风率检测方法

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Foreword

This document is in accordance with the provisions of GB/T 1:1-2020 "Guidelines for Standardization Work Part 1: Structure and Drafting Rules for Standardization Documents" drafting: Please note that some contents of this document may refer to patents: The issuing agency of this document assumes no responsibility for identifying patents: This document is proposed by China Iron and Steel Industry Association: This document is under the jurisdiction of the National Iron Ore and Direct Reduced Iron Standardization Technical Committee (SAC/TC317): This document is drafted by: China Metallurgical Changtian International Engineering Co:, Ltd:, Metallurgical Industry Information Standard Research Institute, Ningxia Jianlong Longxiang Iron and Steel Co:, Ltd: Ltd: The main drafters of this document: Ye Hengdi, Lu Xingfu, Zhu Xiaochun, Wei Jinchao, Wang Yuefei, Ning Jiangbo, Wang Jianping, Liao Jiyong, Wang Zhaocai, Zhang Zhen, Li Shichao, Li Guozheng, Chen Zibin, Zhu Rong, Wang Shifeng, Wang Bin: Detection method of static air leakage rate in iron ore sintering system

1 Scope

China's national test method for the static air leakage rate of an iron ore sintering system. A sinter plant works by drawing air down through a bed of ore and coke breeze on a moving grate, and the fans that do that are among the largest electrical loads in an integrated steelworks. Air that enters the system anywhere other than through the bed - through the sliding seals along the strand, through the windbox joints, through the ducting and the dust catchers - is drawn all the way to the fan and does no work at all. Leakage rates of forty or fifty per cent are common in old plants, which means half the fan power is wasted. Measuring it statically, with the strand stopped and the system under fan suction, gives a plant a number it can act on and can track after maintenance, which is what makes seal repair a justifiable investment rather than a housekeeping task.

This document describes the test method for static air leakage rate of iron ore sintering system: This document is applicable to the detection of the sealing performance of the iron ore sintering machine system in the iron and steel industry:

2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text: Among them, dated references For documents, only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to this document:

GB/T 50408 Specification for design of sintering plants

3 Terms and Definitions

The following terms and definitions defined in GB/T 50408 apply to this document: 3:

1 It is composed of main exhaust fan, large flue, bellows and bellows branch pipes, and air regulating device, and provides combustion-supporting and heat-conducting air supply for the production process of sintering machine: to the system: 3:2 effective wind effectiveair Under the action of the main exhaust fan, it passes through the mixture layer, and enters the air for the combustion air of the sintering fuel and the transfer of heat for the sintering mixture: box of air: 3:3 air leakage ineffectiveair Ineffective air entering the exhaust system of the sintering machine: 3:

4 Air leakage before the outlet of the large flue of the sintering machine or before the inlet of the dust collector: 3:

5 Air leakage of the exhaust system of the sintering machine:

Note: It is the sum of all leakage air volumes before the main exhaust fan inlet of the sintering machine: 3:

6 Under specific working conditions, the air volume at the outlet of the large flue or the inlet of the dust collector: