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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 44033-2024

Calculation methods for the utilization rate of iron ore tailings

铁矿尾矿利用率计算方法

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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 of the contents of this document may involve patents: The issuing organization of this document does not assume the responsibility for identifying patents: This document was proposed by the China Iron and Steel Association: This document was prepared by the National Technical Committee on Iron Ore and Direct Reduced Iron (SAC/TC317) and the National Product Recycling Foundation and It is under the jurisdiction of the Management Standardization Technical Committee (SAC/TC415): This document was drafted by: Zhengzhou Institute of Comprehensive Utilization of Mineral Resources, Chinese Academy of Geological Sciences, Beijing University of Technology, China Metallurgical Mining Enterprises Association Association, China National Institute of Standardization, Yangzhou Taifu Special Materials Co., Ltd: The main drafters of this document are: Cao Jincheng, Feng Ansheng, Zhang Liang, Zhao Junwei, Lv Zhenfu, Wu Qiuji, Pan De'an, Guo Min, Yang Huipeng, Jiang Shengcai, Zhou Wenya, Gao Dongfeng, Wu Bin, Wu Nanyong, Chen Fang: Calculation method of iron ore tailings utilization rate

1 Scope

GB/T 44033-2024 specifies how the utilization rate of iron ore tailings is calculated. China produces more mine tailings than any other country and iron ore tailings are the largest single stream, so the proportion of them put to use rather than impounded behind a dam is a number that appears in provincial targets, in mine permits and in the environmental reporting of every listed miner. A number used that way has to be defined precisely, or it will be reported differently by everyone. This standard defines it: the boundary of the calculation and the period it covers, the definition of the tailings generated and of the tailings utilized, the utilization routes counted, backfill, building materials, aggregate, soil amendment and the recovery of associated minerals, and how each is measured, the treatment of stockpiled tailings from earlier years, the data sources and the records required, the calculation formulae and the expression and rounding of the result, and the verification. For a mining company, an auditor or a regulator in China, this is the definition the reported figure has to

follow.

This document describes the calculation method for iron ore tailings utilization: This document applies to the utilization of iron ore tailings:

2 Normative references

This document has no normative references:

3 Terms and definitions

The following terms and definitions apply to this document: 3:

1 Tailings One of the products of mineral processing is the residue after the concentrate and middlings are separated from the input materials: [Source: GB 50612-2010, 2:0:6, modified] 3:2 tailings pond The place where tailings discharged from the ore dressing plant are stored: [Source: GB 50863-2013, 2:0:1, modified] 3:

3 Tailings are used for activities such as filling mined-out areas, recovering valuable components, making building materials and leveling sites: 3:

4 The annual utilization mass of tailings is the percentage of the annual production mass of tailings: 3:

5 The percentage of the cumulative mass of tailings utilized over the years to the cumulative mass of tailings produced:

4 Calculation method

1 Utilization rate of iron ore tailings For a single iron ore mine, the utilization rate of its iron ore tailings is calculated according to formula (1): $T_y = \frac{S_u}{S_y} \times 100\%$ (1) Where: T_y

---Tailings utilization rate;