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GB/T 46427-2025

**Assessment method of intelligent heavy medium separation
system in coal preparation plant**

选煤厂重介质分选系统智能化评定方法

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Foreword

This document conforms to GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents". Drafting is scheduled. Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed by the China National Coal Association. This document is under the jurisdiction of the National Coal Standardization Technical Committee (SAC/TC 42). This document was drafted by: Shendong Coal Branch of China Shenhua Energy Company Limited and Coal Science and Technology Research Institute Co., Ltd. Guoneng Shendong Coal Group Co., Ltd., Shaanxi Boxuan Technology Co., Ltd., Ningxia Baofeng Energy Group Co., Ltd., Shanxi Liliu Jiao Coal Group Co., Ltd., China Coal Northwest Energy and Chemical Group Co., Ltd., and Changsha Kaiyuan Instrument Co., Ltd. The main drafters of this document are: Song Wenge, Zhang Chuanjiu, Yang Xiaoyu, Wang Dongsheng, Di Lanjun, Wang Bin, Zhang Zhigang, Wang Long, Huo Zhifei, and Sun Nanxiang. Deng Yaming, Lu Dandan, Wen Sheng, Tao Yadong, Hu Xingwei, Shang Ming, Chen Fan, Zhao Le, Zhao Huanyu, Su Haima, Cong Rihong, Luo Chaofan, Zhang Jiabin Liu Qinju. Intelligent Evaluation Method for Heavy Medium Separation Systems in Coal Preparation Plants

1 Scope

GB/T 46427-2025 is the Chinese national standard covering grading how automated a dense medium circuit really is - the density and level measurement and its reliability, the automatic medium control, the closed loop on product ash, and the levels from manual through supervised to fully autonomous operation. First edition, under the China National Coal Association. In force from 1 May 2026. Issued on 5 October 2025, it has been in force since 1 May 2026.

This document specifies the intelligent evaluation index system and scoring index for the heavy media separation system in coal preparation plants. This document applies to the intelligent evaluation of a single heavy media separation system in a coal preparation plant.

2 Normative references

This document has no normative references.

3 Terms and Definitions

This document does not contain any terms or definitions that need to be defined.

4.1 Composition of the Indicator System

4.1.1 The intelligent indicator system of the heavy medium separation system in the coal preparation plant consists of essential indicators and scoring indicators.

4.1.2 Essential indicators are the prerequisite for evaluation. Only when all essential indicators are met can the evaluation proceed to the scoring indicators.

4.1.3 The scoring index is the core of the evaluation. It quantifies the intelligence level of the heavy media sorting system and measures its degree of intelligence. High and low.

4.2 Essential Indicators

4.2.1 The network bandwidth should be sufficient to meet the needs of subsequent large data transmission, and the backbone network transmission rate should not be less than 1,000 Mbit/s.

4.2.2 The data format and interface should meet the communication and data sharing requirements with other systems in the coal preparation plant.

4.2.3 The main production process equipment is subject to remote or centralized interlocking control, and the main production links have complete quality measurement and safety monitoring systems. The system is efficient, with complete and accurate monitoring facilities for key coal preparation process parameters.

4.2.4 All equipment, facilities, and instruments in the sorting system are safe and reliable, and can operate continuously, stably, and effectively for 4 hours without human intervention. above.

4.3 Scoring Indicators The intelligent scoring index system for heavy media separation systems in coal preparation plants includes primary, secondary, and tertiary indicators. Primary indicators reflect... The overall requirements and construction content of an intelligent heavy media separation system for coal preparation plants include. monitoring and control execution, intelligent production control, and intelligent decision-making. The

strategy. Secondary indicators are general indicators under the primary indicators, totaling 8. Tertiary indicators are specific, actionable, and measurable indicators under the secondary indicators. The evaluation criteria consist of 29 items. Table 1 shows the scoring index system for the intelligent coal preparation plant sorting system.

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