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

GB/T 35150.3-2024

**Technical requirements of dry process cement production
complete equipment - Part 3: Cement preparation system**

新型干法水泥生产成套装备技术要求 第3部分：水泥制备系统

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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 is required. This document is part 3 of GB/T 35150 "Technical requirements for complete sets of equipment for the production of new dry process cement". GB/T 35150 has been issued The following parts were published. Part

1 Scope

GB/T 35150.3-2024 is the cement preparation part of the Chinese standard for complete dry process cement production equipment, covering the finish grinding system that turns clinker into cement. It is the largest single electricity consumer in the plant, typically a third of the works total, which is why the choice between ball mill, vertical roller mill and roller press with separator, and the efficiency of the separator itself, dominate the specification. The standard sets the classification and composition of the cement preparation system and then the technical requirements: the grinding equipment and its capacity, specific energy consumption and product fineness and particle size distribution, the separator and its efficiency, the feeding, conveying and blending equipment, the additive dosing, the dedusting and the noise, the drive and the instrumentation and control, and the safety, availability and reliability requirements. It then gives the test methods and the inspection rules. It took effect on 23 August 2024.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB 175 General purpose Portland cement

GB/T 1345 Cement fineness test method - Sieve analysis method

GB 2894 Safety signs and their use guidelines

GB/T 3766 General rules and safety requirements for hydraulic transmission systems and their components

GB/T 3797 Electrical control equipment

GB 4053.1 Safety requirements for fixed steel ladders and platforms Part

GB/T 7932 General rules and safety requirements for pneumatic systems and their components

GB/T 7935 General technical requirements for hydraulic components

GB/T 8074 Determination of specific surface area of cement - Blaine method

GB/T 8196 Mechanical safety guards - General requirements for the design and manufacture of fixed and movable guards GB/T 10595 Belt conveyor

GB/T 10596 Scraper conveyor

GB/T 11022 Common technical requirements for high voltage AC switchgear and controlgear standards

GB 12348 Environmental noise emission standard for industrial enterprises GB/T 13306 Labels

GB/T 13384 General technical requirements for packaging of electromechanical products

GB 14784 Safety Specification for Belt Conveyors

GB/T 16754 Design principles for mechanical safety emergency stop function

GB 16780-2021 Energy consumption limit per unit product of cement

GB 17167 General rules for the allocation and management of energy metering instruments in energy-consuming units

3 Cement preparation systems; - Part

4.Cement kiln co-processing systems. - 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 China Building Materials Federation. This document is under the jurisdiction of the National Technical Committee for Standardization of Building Materials and Equipment (SAC/TC 465). This document was drafted by: Tianjin Cement Industry Design and Research Institute Co., Ltd., China National Materials International Engineering Co., Ltd., Hefei Zhongya Building Materials Equipment Co., Ltd., China Building Materials (Hefei) Powder Technology

Equipment Co., Ltd., Jiangsu Pengfei Group Co., Ltd., Tangshan Ji Dong Equipment Engineering Co., Ltd., Yancheng Institute of Technology, China Building Materials Machinery Industry Association, Beijing Kaisheng Building Materials Engineering Co., Ltd., Shanghai Xin Jian Heavy Machinery Co., Ltd., Sinoma International Intelligent Technology Co., Ltd., Chengdu Lijun Industrial Co., Ltd., Jiangsu Jida Powder Engineering Equipment Design Research Institute Co., Ltd., Tangshan Jidong Cement Co., Ltd., Anhui Conch Building Materials Design and Research Institute Co., Ltd., Daye Group Co., Ltd. Co., Ltd., Inner Mongolia North Jiaxuan Technology Co., Ltd. The main drafters of this document are: Peng Mingde, Nie Wenhai, Qin Zhonghua, Zhao Meijiang, Wang Yumin, Ye Weidong, Wang Qing, Han Kai, Du Xin, Zuo Hongchuan, Shi Guoping, Liu Pingcheng, Li Ming, Xie Jiyou, Wang Junyi, Cao Jiuyu, Ding Yazhuo, Wu Yaoyao, Wu Tao, Liu Fuyong, Chen Daiyan, Shen Xin, Zhu Shunming, Song Liming, Zhou Changhua, Zhang Xu, Dong Jiwen, Zhang Baolin, Yang Xiaohong, Zhang Bangsong, and Zhang Hong.

The new dry process cement production technology is based on the suspension preheating and pre-decomposition technology, which uses the existing technologies in thermal engineering, powder engineering, fluid mechanics, etc. The comprehensive technology of cement production adopts modern scientific theories and technologies, and uses computers and network information technology. The complete set of equipment consists of relatively independent The independent process system equipment mainly includes raw material crushing and homogenization, raw material preparation, fuel preparation, cement kiln co-processing, clinker burning, Cement preparation, dust removal, desulfurization, denitrification, process control, packaging and shipping system equipment. At present, my country's cement equipment and technology have reached the international advanced level, but the complete set of equipment based on system solutions is facing With the expansion of domestic cement equipment exports and engineering general contracting, the systematic support of complete sets of equipment is urgently needed. The demand for standards is also gradually increasing. The purpose of formulating the standards for new dry process cement complete sets of equipment is to improve the user-oriented cement complete sets of equipment standards. The system provides technical support for the high-quality development of the cement industry, better guides the industry to develop in the direction of green, low-carbon, and intelligent manufacturing, and supports Support the export of complete sets of cement equipment in my country. This document is used to guide the process selection and design of complete sets of equipment for cement preparation system, energy consumption testing and pollution emission control, and standardizes water Technical requirements for installation acceptance, performance commissioning, etc. of complete sets of equipment for mud preparation systems, and promote and implement energy-saving and carbon-reducing technology and equipment in the cement industry industrial application and transformation and upgrading, and coordinate with other series of standards. GB/T 35150 is planned to consist of seven parts. Part

1.Raw meal preparation system. The purpose is to standardize the equipment structure of

the raw meal preparation system in the new dry process cement production complete equipment. completion, technical requirements, safety and environmental protection requirements, installation acceptance, commissioning and performance testing and delivery documents. Part

2.Firing system. The purpose is to standardize the equipment composition, technology and Requirements, safety and environmental protection requirements, installation acceptance, commissioning and performance testing and delivery documents. Part

3.Cement preparation system. The purpose is to standardize the equipment structure of the cement preparation system in the new dry process cement production complete equipment. completion, technical requirements, safety and environmental protection, installation acceptance and commissioning, performance testing and delivery documents. Part

4.Cement kiln co-processing system. The purpose is to standardize the cement kiln co-processing system in the new dry process cement production equipment. System equipment composition and performance indicators, technical requirements, safety and environmental protection, installation acceptance, commissioning and performance testing and delivery document. Part

5.Dust removal system. The purpose is to standardize the equipment classification, structure and function of the dust removal system in the new dry process cement production equipment. completion, technical requirements, safety and environmental protection, installation acceptance and commissioning, performance testing and delivery documents. Part

6.Desulfurization system. The purpose is to standardize the equipment classification, structure and function of the desulfurization system in the new dry process cement production equipment. completion, technical requirements, safety and environmental protection, installation acceptance and commissioning, performance testing and delivery documents. Part

7.Denitration system. The purpose is to standardize the equipment classification, structure and function of the denitration system in the new dry process cement production equipment. completion, technical requirements, safety and environmental protection, installation acceptance, commissioning and performance testing and delivery documents. Technical requirements for complete equipment for new dry process cement production Part