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

GB/T 35150.4-2024

**Technical requirements of dry process cement production
complete equipment - Part 4: Co-processing system in cement
kiln**

新型干法水泥生产成套装备技术要求 第4部分：水泥窑协同处置系统

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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 4 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 35150.4-2024 is Part 4 of the Chinese series on complete equipment for new dry process cement production, and covers the co-processing system that burns waste in the cement kiln. A cement kiln is an attractive destructor because it runs at over 1400 degrees with long residence times and an alkaline environment that captures acid gases, and the ash becomes part of the clinker rather than a residue to be landfilled; the risk is that the waste stream disturbs the kiln chemistry or the emissions, so the handling equipment matters as much as the kiln. The standard sets the system equipment composition and its performance indicators, then the technical requirements for the basic system, the storage equipment, the pre-treatment equipment, the conveying equipment, the dosing equipment, the environmental protection equipment, the fire fighting equipment and the electrical and process control equipment, followed by the safety and environmental protection provisions and the test requirements and methods. It took effect on 23 August 2024.

This document specifies the system equipment composition and performance indicators of the cement kiln coordinated disposal system in the new dry process cement production complete set of equipment, technology Requirements, safety and environmental protection, installation acceptance, commissioning and performance testing and delivery documents. This document applies to hazardous waste, general industrial solid waste, domestic waste (including solid waste generated during the disposal of domestic waste), Construction waste, urban sewage treatment sludge, contaminated soil, emergency waste, agricultural and forestry solid waste, etc. are used in the new dry process cement production line. Design, manufacture, installation, commissioning and acceptance of disposal systems.

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. in this document.

GB/T 567.1 Bursting disc safety devices Part

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: Sinoma International Environmental Engineering (Beijing) Co.,

Ltd., Tianjin Cement Industry Design and Research Institute Co., Ltd., Huaxin Cement Co., Ltd., Beijing General Research Institute of Building Materials Science Co., Ltd., Beijing Sifanglian New Technology Development Co., Ltd., China National Materials International Engineering Co., Ltd., Lantian Zhongcheng Environmental Engineering Co., Ltd., Tangshan Jidong Equipment Engineering Co., Ltd., Beijing Ensa Engineering Technology Co., Ltd., Beijing Zhongke Guorun Environmental Protection Technology Co., Ltd., Zhejiang Red Lion Environmental Protection Co., Ltd., Yancheng Institute of Technology, Beijing Jiandu Design and Research Institute Co., Ltd., Shanghai Xinjian Heavy Machinery Co., Ltd., Sinoma International Intelligent Technology Co., Ltd., Jiangsu Pengfei Group Co., Ltd. Co., Ltd., Sinoma Energy Conservation Co., Ltd., Keystone Environmental Protection Equipment Co., Ltd., Anhui Yuanchen Environmental Protection Technology Co., Ltd., Jiangshan City Hejiashan Cement Co., Ltd., Gezhouba Jiexin (Wuhan) Technology Co., Ltd., and China Building Materials Machinery Industry Association. The main drafters of this document are: Hu Bin, Guo Yanpeng, He Xiaolong, Wang Jiajun, Wang Yumin, Wang Zhaojia, Gao Yuzong, Liu Renyue, Yang Dongfang, Ji Lei, Zhu Baohua, Fan Daorong, Zhang Chunhui, Li Chunping, Li Hui, Tao Shoubao, Liu Pingcheng, Zeng Dexuan, Liao Huaping, Li Zhongfeng, Zhu Yanchen, Chen Xiaodong, Xin Meijing, Ni Weidong, Li Hailong, Shao Li, Wang Junyi, Cao Jiuyu, Ding Tonghua, Zuo Hongchuan, Hong Tianmi, Tao Junpu, Li Lisheng, Zheng Jinzhao, Wei Mao, Xu Hui, Liu Defang, Gu Jun, Gao Sheng, Huang Minrui, Lai Tiegang, Xu Jia, Zhao Danhui 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. The new dry cement kiln co-treatment of solid waste has many technical advantages such as high incineration temperature, stable

incineration state, and alkaline environment. The document is used to standardize the technical requirements of cement kiln collaborative disposal system process design, equipment acceptance, performance testing, etc., and promote the coordinated disposal of cement kilns. Under the premise of not affecting the quality of cement products and stable production, the solid waste can be harmlessly disposed of or recycled. Other series of standards are coordinated with each other. 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.