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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 46426-2025

Design specification for produced water treatment of coalbed methane well

煤层气井排采水处理设计规范

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1.Structure and Drafting Rules of Standardization Documents". Drafting. 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/TC42). This document was drafted by: China Coal Technology & Engineering Group Xi'an Research Institute Co., Ltd., China United Coalbed Methane Co., Ltd., and the Coal and Coalbed Methane Association. The National Key Laboratory, Shanxi Blue Flame Coalbed Methane Group Co., Ltd., Xi'an Coal Science and Technology Testing Technology Co., Ltd., and Zhong Sheng Environmental Technology Development Co., Ltd. Exhibition Co., Ltd. The main drafters of this document are. Jiang Wenping, Wang Yi, Zhang Peihe, Hao Shijun, Feng Huawei, Fan Yao, Sun Lichun, Cao Ming, Liu Mingjun, and Liu Baigen. Li Dandan, Du Xinfeng, Qiao Kang, Liu Jia, Ji Changjiang, Li Feng, He Qinghong, Li Junjun, Lei Fen. Coalbed methane well drainage water treatment design specifications

1 Scope

GB/T 46426-2025 is the Chinese national standard covering treating the water pumped off a coalbed methane well - the salinity and the suspended coal fines, the treatment train chosen for the quality and the volume, the disposal or reuse, and the design of a plant whose flow falls steadily as the field ages. First edition, under the China National Coal Association, and it belongs with the economic evaluation standard GB/T 46549-2025. In force from 1 May 2026. Issued on 5 October 2025, it has been in force since 1 May 2026.

This document specifies the design basis, design principles, design process, metering design, gathering and transportation design, and water quality analysis design for coalbed methane well drainage water treatment. The design includes the application of water treatment, water treatment process design, monitoring requirements, quality, health, safety and environmental management, and an outline for the design document. This document applies to the design of drainage water treatment for coalbed methane wells during the exploration and development phase.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB 5084 Standard for Irrigation Water Quality

GB 8978 Integrated Wastewater Discharge Standard

GB 18599 Standard for Pollution Control of General Industrial Solid Waste Storage and Landfill

GB/T 18920 Water Quality Standards for Urban Wastewater Reuse and Urban

Miscellaneous Water Use

GB/T 18921 Water Quality Standards for Landscape and Environmental Water Used in Urban Wastewater Reuse

GB/T 40546-2021 Design Specification for Drainage Engineering of Coalbed Methane Wells NB/T 10029-2016 Design Specification for Coalbed Methane Gathering and Transportation SY/T 5523-2016 Oilfield Water Analysis Methods

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 producedwater Water discharged from coalbed methane wells.

Note. This includes backflow fluid from fracturing and blowout treatment, wellbore treatment, etc.

3.2 watergathering line Water pipeline from coalbed methane wellhead to water collection pool or water collection tanker.

Note. This includes both branch water collection lines and main water collection lines.

3.3 Branch pipelines connecting the coalbed methane wellhead to the water collection trunk line.

3.4 Pipelines that collect water from each water collection branch and transport it to a collection pool or water tanker.

Note. The diameter of the main water collection pipe is larger than that of the branch water collection pipe.