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

GB 45669.1-2025

**Norm of water intake for industry in the Yellow River basin -
Part 1: Thermal power production**

黄河流域工业用水定额 第1部分：火力发电

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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. This document is Part 1 of GB 45669 Industrial Water Quota in the Yellow River Basin. GB 45669 has been published in the following parts.

1. Thermal power generation;

2. Coal preparation;

3. Coal-to-olefins;

4. Cement. 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 is proposed and coordinated by the Ministry of Water Resources of the People's Republic of China.

According to the Yellow River Protection Law of the People's Republic of China, the state implements a mandatory water quota management system in the Yellow River Basin and formulates the Yellow River Mandatory water quotas for high water-consuming industries and service industries in the Yellow River Basin. The national standard for mandatory water quotas is used to measure the water conservation efforts of relevant industries in the Yellow River Basin. It is an important standard for water level, an important means to implement the rigid water resource constraint system and the mandatory water quota management system in the Yellow River Basin, and also an important It is an important technical basis for the country to implement the water withdrawal permit system, implement planned water use management, and carry out water resources demonstration and water conservation

evaluation. GB 45669 "Industrial Water Quota in the Yellow River Basin" specifies the calculation method based on the water use characteristics of different high water-consuming industrial sectors in the Yellow River Basin. The law stipulates mandatory water quotas and makes management requirements, and is intended to consist of the following 14 parts.

1. Thermal power generation. The purpose is to clarify the calculation method, index value and Management requirements.
2. Coal preparation. The purpose is to clarify the calculation method, index value and management of the mandatory water quota for coal preparation in the Yellow River Basin Require.
3. Coal-to-olefins. The purpose is to clarify the calculation method, index value and Management requirements.
4. Cement. The purpose is to clarify the calculation method, index value and management of the mandatory water quota for cement in the Yellow River Basin Require.
5. Iron and steel. The purpose is to clarify the calculation method, index value and management of the mandatory water quota for iron and steel in the Yellow River Basin Require.
6. Petroleum refining. The purpose is to clarify the calculation method, index value and Management requirements.
7. Coal-to-methanol. The purpose is to clarify the calculation method, index value and Management requirements.

1 Scope

GB 45669.1-2025 is the Chinese national standard on norm of water intake for industry in the yellow river basin - part 1: thermal power production, in the field of environment and health protection, safety. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 25 April 2025 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 June 2025. Classification: ICS 13.060.25, CCS P41. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the calculation method, index values and management requirements for mandatory water quotas for thermal power generation in the Yellow River Basin. This document applies to the existing, newly built, Water use management for

coal-fired units in rebuilt and expanded thermal power generation enterprises. This document does not apply to water management for emergency standby units.

2 Normative references

The contents of the following documents constitute 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/T 12452 General rules for water balance test

GB/T 18820 General rules for the compilation of industrial water quotas

GB/T 21534 Terminology for water conservation

GB/T 24789 General rules for the allocation and management of water metering instruments in water-using units

GB/T 28714 Technical Guidelines for Water Intake Measurement DL/T 606.5 Guidelines for energy balance of thermal power plants Part

5. Water balance test DL/T 2385 Technical Guidelines for the Installation and Management of Water Metering Instruments in Thermal Power Plants

3 Terms and definitions

The terms and definitions defined in GB/T 18820 and GB/T 21534 and the following apply to this document.

3.1 The sum of the water volume taken from various water sources by thermal power generation enterprises and measured by primary water meters.

3.2 The amount of water taken from various water sources by thermal power generation enterprises to produce each unit of electricity.

4.1 Calculation scope

4.1.1 The calculation scope of water consumption should include water from conventional water sources such as surface water, groundwater, urban water supply network, purchased steam and hot water. The amount of water from unconventional water sources such as recycled water and rainwater collection. The water consumption of seawater direct cooling units does not include water taken from the ocean for condensers and