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

GB/T 18916.1-2021

Replacing GB/T 18916.1-2012

Norm of water intake - Part 1: Thermal power production

取水定额 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 of Standardization Documents" Drafting. This document is the first part of GB/T 18916 "Water withdrawal quota". GB/T 18916 has released the following parts.

- 1. Thermal power generation;
- 2. Iron and Steel Complex;
- 3. Petroleum refining;
- 4. Textile dyeing and finishing products;
- 5. Paper products;
- 6. Beer manufacturing;
- 7. Alcohol manufacturing;
- 8. Synthetic ammonia;
- Part 9: MSG manufacturing;
- 10. Pharmaceutical products;
- 11. Coal preparation;
- 12. Alumina production;

1 Scope

GB/T 18916.1-2021 is the Chinese national standard on norm of water intake - part 1:

thermal power production, in the field of environment and health protection, safety. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 21 May 2021 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 December 2021. 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, water withdrawal quota and quota management requirements for thermal power generation water withdrawal quota. This document is applicable to the extraction of water in the production process of existing, newly built, renovated and expanded coal-fired power generation enterprises, and gas-steam combined cycle power generation enterprises. Other thermal power generation enterprises can refer to the implementation of the management of the quantity.

2 Normative references

The contents of the following documents constitute the indispensable clauses of this document through normative references in the text. Among them, dated quotations Only the version corresponding to that date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to This document.

GB/T 12452 General Rules for Enterprise Water Balance Test

GB/T 18820 General Rules for the Compilation of Water Intake Quotas for Industrial Enterprises

GB/T 21534 Industrial water and water saving terms

GB 24789 General Rules for the Provision and Management of Water Measuring Instruments for Water Use Units
DL/T 606.5 Energy Balance Guidelines for Thermal Power Plants Part

3 Terms and definitions

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

3.1 Unit power generation quantity of water intake for unit power generation quantity
Thermal power plants need to extract water from various water resources per unit of electricity produced.

4.1 General rules

4.1.1 Scope of water withdrawal The scope of water withdrawal refers to the amount of water extracted by enterprises from various water sources, including surface water (measured by water purification plants), groundwater, and urban areas. Water supply, other water purchased from the market (or water products, such as steam, hot water, geothermal water, etc.) The amount of water from a conventional water source. Among them, the desalination method of sea water (including the mixed water of sea water and fresh water) is used to enter the fresh water in the industrial pool of the power plant. The amount shall prevail. The water intake of enterprises adopting the through-flow cooling system does not include water taken from rivers, rivers, lakes, seas and other water bodies for use in condensers and other heat exchangers. The amount of water that is cooled and discharged back to the original water body; the enterprise takes water from the once-through cooling water (excluding seawater) system for other purposes, then this part should be included The scope of the enterprise's water intake. Seawater (including mixed water of seawater and fresh water, with total dissolved solids greater than 1000mg/L) circulating cooling method The amount of seawater taken by an enterprise is not included in the amount of water taken.