

ICS 17.120.01

CCS F04



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

GB/T 12452-2022

Replacing GB/T 12452-2008

General principles of water balance test

水平衡测试通则

Issued on: July 11, 2022

Implemented on: November 1, 2022

**Issued by: State Administration for Market Regulation;
Standardization Administration of China**

Table of Contents

- 1 Scope
- 2 Normative references
- 3 Terms and Definitions
- 4 Diagram and equation of water balance

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" drafted. This document replaces GB/T 12452-2008 "General Rules for Enterprise Water Balance Testing". Compared with GB/T 12452-2008, except for structural adjustment In addition to editorial changes, the main technical changes are as follows:

- Changed the scope of application of the document (see Chapter 1, Chapter 1 of the.2008 edition);
- Deleted the classification of water use (see Chapter 4 of the.2008 edition);
- Changed the water balance test workflow (see Chapter 5, Chapter 8 of the.2008 edition);
- Increased the water balance test report compilation outline (see Appendix A). Please note that some content of this document may be patented. The issuing agency of this document assumes no responsibility for identifying patents. This document is proposed and managed by the National Water Saving Standardization Technical Committee (SAC/TC442). This document is drafted by: China National Institute of Standardization, Bashan Group Co., Ltd., Guangzhou Energy Testing Research Institute, Water Resources Management of the Ministry of Water Resources Center, China Power Construction Group East China Survey and Design Institute Co., Ltd., Shenzhen Water Planning and Design Institute Co., Ltd., Ningxia Water Resources Electrical Survey and Design Research Institute Co., Ltd., Yangtze River Survey, Planning, Design and Research Co., Ltd., Zhejiang Jinhua Shuntai Hydropower Construction Co., Ltd. Company, Shandong Huate Smart Technology Co., Ltd., Huaihe Engineering Group Co., Ltd., Fujian Fengzhu Textile Technology Co., Ltd., Ningxia Wanzejian Set up Engineering Co., Ltd., Water Conservation Promotion Center of the Ministry of Water Resources, Beijing Boshunyuan Water Balance Testing Center, Shandong Provincial Office Affairs Administration, Fujian Jinjiang Benda Printing and Dyeing Co., Ltd., Xiamen Yuyang Water Saving Technology Co., Ltd., Zhejiang Qingsong Textile Co., Ltd., Beijing Guorui Zhixin Water Saving Technology Co., Ltd. The

main drafters of this document. Bai Xue, Hu Mengting, He Junfei, Zhang Cheng, Bai Yan, Lv Yingzhi, Zhang Jiqun, Chen Xiufeng, He Qinya, Xu Ling'e, Ding Zhiliang, Ma Fangkai, Chen Kai, Zhao Chunhong, Ha Anying, Wang Yan, Cai Rong, Zhang Lan, Zhang Yuandong, Chen Taixing, Cao Fujin, Li Shenwei, Li Xuege, Wang Huaichong, Wu Hongxu, Shen Guangsheng, Li Xiyan, Fan Rong, Ke Wenxin, Zhou Lixin, Ni Luogeng, Liu Lei, Zhang Guobao, Yang Zhouqin. This document was first published in.1990, revised for the first time in.2008, and this is the second revision. General Rules for Water Balance Testing

1 Scope

GB/T 12452-2022 is the Chinese national standard on general principles of water balance test, in the field of metrology and measurement. 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 11 July 2022 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 November 2022. Classification: ICS 17.120.01, CCS F04. 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 water balance diagrams and equations for water use units, and water balance testing procedures and methods. This document applies to the water balance test of water use units, but not to irrigation areas.

2 Normative references

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, dated citations documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to this document.

GB/T 7119 Guidelines for the Evaluation of Water-Saving Enterprises

GB/T 18916 (all parts) water intake quota

GB/T 21534 Terms of Water Conservation

GB 24789 General rules for the provision and management of water measuring instruments for water units

GB/T 28284 Water-saving society evaluation index system and evaluation method

3 Terms and Definitions

GB/T 21534 and the following terms and definitions apply to this document.

3.1 water balance test To systematically measure, count and calculate the water volume of the water unit or system, analyze and find out the problems and put forward according to the principle of water balance Continuous improvement of the proposed process.

4 Diagram and equation of water balance

The direction of the arrow indicates the input and output of water in a relatively independent or complete water system or unit, and its chemical composition and substance. The state of mind is irrelevant. The basic diagram of water balance is shown in Figure

1.The water input is calculated according to formula (1), and the water output is calculated according to formula (2). The water balance equation See formula (3).