# NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA 中华人民共和国国家标准

## Code for Design of Building Water Supply and Drainage

## 建筑给水排水设计规范

GB 50015 — 2003 (英文版)

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## NOTICE

This code is written in Chinese and English. The Chinese text shall be taken as the ruling one in the event of any inconsistency between the Chinese text and the English text.

## Bulletin of Ministry of Construction of the People's Republic of China

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## Bulletin of Ministry of Construction of the People's Republic of China Promulgation for the National Standard"Code for Design of Building Water Supply and Drainage"

"Code for Design of Building Water Supply And Drainage" has been approved as a national standard, with a serial number of GB 50015—2003, and it shall come into force upon Septemberl, 2003. Herein, No. 3.2.1,3.2.3,3.2.4,3.2.5,3.2.6,3.2.9,3.2.10,3.2.14, 3.5.8,3.9.1,3.9.3,3.9.4,3.9.9,3.9.12,3.9.14,3.9.22,3.9.24,3.9.27,4.2.6,4.3.5, 4.3.6,4.3.13,4.3.19,4.5.9,4.8.4,4.8.8,5.4.5,5.4.20 are mandatory clauses, which must be enforced strictly. The original "Code for Design of Building Water Supply and Drainage" GBJ 15—88 shall be abrogated on the same date.

Research Institute of Standards and Norms-Ministry of Construction will organize the China Planning Press to take on publishing and distributing works of this code.

Ministry of Construction of the People's Republic of China April 15, 2003

#### **Preface**

According to the requirements of "Notice of Printing and Distributing for the '1998 Preparation and Revision Plan of Engineering Construction Standards' (Document JB [1998] No. 94)-Ministry of Construction", that the "Code for the Design of Building Water Supply and Drainage"GBJ 15—88 managed by Shanghai Construction and Management Committee, compiled by Shanghai Xian Dai Architectural Design (Group)Co., Ltd jointly with China Architecture Design & Research Group and Architectural Design and Research Institute of Guangdong Province has been revised completely. In the period of revision, the Code revision group summarized the recent design experience of building water supply and drainage, carried out various studies on major topic, proposed the draft for comments, based on the nation-wide opinions which solicited by the code revision group from specialist, scholar, designer of the Design, the Research and College relevant units, finally, the new version of code was worked out through serious study and analysis.

The major revisions of technology are (1) residential area water supply and drainage design has been added; (2) dwelling and public buildings rated water consumption has been readjusted and added; (3) the measures to prevent pollution in pipe connect have been added; (4) applied technology of new types of pipe has been added; (5) probability formula of calculating second flow of domestic water supply has been adopted; (6) hydraulic calculation of varied types of pipe has been unified; (7) recycle water treatment of aquatic recreation pool has been added; (8) the design for cooling water and recycle water has been added; (9) details of hospital sewage, water supply and drainage for swimming pool expressed in association standards have been deleted, only provisions of principle, safety and sanitation reserved; (10) the provisions on water supply and drainage for production technology have been deleted; (11) the parameter of pressure flow of roof rainwater has been added; (12) applied range for design heat consumption of maximum hour with central hot water supply has been readjusted; (13) calculation of natural cycle hot water pipe system has been deleted; (14) technology essential and parameter of hot water machine set and water heater have been added and (15) relevant contents of fine drinking water pipe system have been added.

The present code may be in need of locally revised in the future, that the relevant informations and contents of locally revised Clauses will be published on the magazine of "Standardization of Engineering Construction".

Clauses marked with boldface letters in the code are mandatory clauses and must be enforced strictly.

Ministry of Construction is responsible for supervision of the present code and explanation of the mandatory clauses, Shanghai Construction and Management Committee for its specific management and Shanghai Xian Dai Architectural Design (Group) Co., Ltd for its specific explanation. During the process for implementing this code, the relevant opinions and advices, which can may be available for reference to next revision, can be posted to shanghai Xian Dai Architectual Design(Group) Co., Ltd (Management Group of National Standard "Code for Design of Building Water Supply and Drainage.", No. 258 Shi Men Er Lu Modern architectural design edifice, Shanghai, China, Postcode: 200041).

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### 1 General Principles

- 1.0.1 The code was drawn up for the purpose of ensuring the quality of building water supply and drainage design, set the design to meet the basic requirement of safety, hygiene, applicability, economy.
- 1.0.2 The code is applicable to the residential area, civil building water supply and drainage design, and also applicable to the industrial building domestic water and drainage and factory roof rain-fall run-off design.

But when design the following projects, current relevant specified code or regulation must be executed:

- 1 Collapsible loess, perennial frozen soil and expansive soil region building.
- 2 Building with anti-seismic intensity more than 9.
- 3 Mineral water cure, civil air defense works.
- 4 Industrial production water supply and drainage.
- 5 Building reclaimed water.
- 1.0.3 Building water supply and drainage design must meet the application demands and also provide convenience for construction installation, operation management, maintenance inspection and safety protection.
- 1.0.4 Building water supply and drainage engineering design must conform with the code, in addition, must conform current relevant national standard codes requirement.



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