



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

GB 55020-2021

**Code for design of building water supply and drainage
(English Translation)**

Issued on: September 8, 2021

Implemented on: April 1, 2022

**Issued by: Ministry of Housing and Urban-Rural Development of the
People's Republic of China;
State Administration for Market Regulation**

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1 General

1.0.1

In order to protect personal health, life and property safety, water resources and ecological environment safety, and meet the basic needs of economic and social management in the construction of building water supply and drainage and water-saving projects, this specification is formulated in accordance with relevant laws and regulations.

1.0.2

The design, construction, acceptance, operation and maintenance of building water supply and drainage and water saving projects must comply with this specification.

1.0.3

Whether the technical methods and measures adopted in the project meet the requirements of this specification shall be judged by the relevant responsible parties. Among them, innovative technical methods and measures should be demonstrated and meet the performance requirements in this specification.

2 Basic rules

2.0.1

Building water supply and drainage and water-saving projects should have the ability to deal with emergencies such as natural disasters, accidents, public health incidents and social security incidents, and the facility operation management unit should formulate relevant emergency plans.

2.0.2

The flood control and flood prevention standards of building water supply and drainage and water saving projects should not be lower than the corresponding requirements for urban fortification in the area.

2.0.3

Materials, products and equipment selected for building water supply and drainage and water-saving projects must be of qualified quality, and materials and equipment related to domestic water supply must also meet the requirements of hygiene and safety.

2.0.4

The processes, equipment, appliances and products selected for building water supply and drainage and water-saving projects should be water-saving and energy-saving.

2.0.5

The construction of production safety, environmental protection and water-saving facilities in building water supply and drainage and water-saving projects should be designed, constructed and put into use at the same time as the main project.

2.0.6

The operation, maintenance and management of building water supply and drainage and water-saving projects should formulate corresponding operating standards and strictly implement them.

2.0.7

The noise, waste water, waste gas and solid waste generated during the construction and operation of building water supply and drainage and water saving projects shall not cause harm to the building environment and human health.

2.0.8

The flammable, explosive and toxic chemical hazards used and produced during the operation of building water supply and drainage facilities shall be strictly managed to prevent personal injury and catastrophic accidents.

2.0.9

Protective measures that do not affect public safety shall be taken for water supply and drainage pipes, equipment and structures in public places.

2.0.10

Equipment and pipelines should be convenient for installation, commissioning, inspection and maintenance.

2.0.11

The anti-corrosion and anti-freezing measures should be determined for pipelines, equipment and structures according to the corrosive nature and environmental conditions of their storage or transmission medium.

2.0.12

For the underground water supply and drainage pipelines arranged within the protection distance in the collapsible loess area, corresponding protective measures shall be taken according to the collapsibility level.

2.0.13

The manhole covers of outdoor inspection wells should have anti-theft and anti-fall measures, and the manhole covers of inspection wells and valve wells should have attribute marks. Manhole covers and well seats with sufficient bearing capacity and good stability should be used for inspection wells and valve wells located on the roadway.

2.0.14

Protective airtight measures shall be taken for the water supply and drainage pipes passing through the enclosure structure of the civil air defense basement.

2.0.15

The raw water quality of domestic hot water, swimming pools and public hot water massage pools shall comply with the relevant provisions of the current national standard "Drinking Water Sanitation Standard" GB 5749.

3.1 General provisions

3.1.1

The water supply system should have the ability to guarantee uninterrupted water supply to buildings or communities, and the water quality, water flow and water pressure should meet the normal water demand of users.

3.1.2

The quality of drinking water shall comply with the current national standard "Drinking Water Hygienic Standard" GB 5749.

3.1.3

The secondary pressurization and regulation and storage facilities shall not affect the normal water supply of the urban water supply network.

3.1.4

It is strictly forbidden to directly connect the water supply pipelines of self-built water supply facilities with urban water supply pipelines. Domestic drinking water pipelines are strictly prohibited from being connected to non-drinking water pipelines such as building reclaimed water and reused water.

3.1.5

The drinking water supply system shall not be polluted by backflow from pipelines and facilities. Reliable anti-backflow measures shall be taken according to the nature of backflow and the degree of harm caused by backflow pollution.

3.2 Water supply network

3.2.1

The water supply system should make full use of the pressure of the outdoor pipe network to directly supply water. The system water supply mode and water supply partition should be reasonably determined according to factors such as building use, building height, use requirements, material and equipment performance, maintenance management, and operating energy consumption.

3.2.2

The working pressure of the pipes, fittings and connection methods used in the water supply system shall not be greater than the nominal pressure or the nominal allowable working pressure in the current national standards; the nominal pressure of the valves shall not be less than the nominal pressure of the pipes and fittings.