



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

GB 50016-2018

**[2018 Edition of GB 50016-2014] Code for Fire Protection
Design of Buildings [Code of Design on Building Fire
Protection and Prevention]**

建筑设计防火规范

(English Translation)

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Table of Contents

Foreword	7
1 General Provisions	14
2 Terminologies and Symbols	16
2.1 Terminologies	16
2.2 Symbols	19
3 Factory-buildings and Storages	20
3.1 Classification of Fire Hazards	20
3.2 Fire Resistance Class of Factory-buildings and Storages	22
Storages	26
3.4 Fire Separation Distance of Factory-buildings	34
3.5 Fire Separation Distance of Storages	41
3.6 Explosion Prevention of Factory-buildings and Storages	44
3.7 Safe Evacuation of Factory-buildings	47
3.8 Safe Evacuation of Storages	49
4.1 General Requirements	51
4.2 Fire Separation Distance of Class A, B, C Liquid Tanks (Tank Farm).....	51
Tanks (Tank Farm).....	56
4.4 Fire Separation Distance of LPG Tanks (Tank Farm).....	63
4.5 Fire Separation Distance of Stackyard for Combustibles	65
5 Civil Buildings	69
5.1 Classification and Fire Resistance Class	69
5.2 General Layout	72
5.3 Fire Compartment and Storeys	75
5.4 Plane Arrangement	79
5.5 Safe Evacuation and Refuge	88
6 Building Construction	104
6.1 Fire Wall	104
6.2 Building Elements and Pipe Shafts	105
6.3 Roof, Blind Ceiling and Joints	108
6.4 Evacuation Staircases and Stairs	109
6.5 Fire Door, Window and Fire Roller Shutter	115
6.6 Overpass, Trestle and Pipe Trench.....	117

6.7 Building Insulation and Exterior Wall Finish System	117
7 Fire Fighting and Rescue Facilities	121
7.1 Fire Lane	121
7.2 Field for Fire Fighting	123
7.3 Fire Elevator	124
7.4 Helicopter Landing Pad	126
8 Arrangement of Fire-fighting Facilities	127
8.1 General Requirements	127
8.2 Indoor Fire Hydrant System	129
8.3 Automatic Fire Extinguishing System	130
8.4 Fire Alarm System	136
8.5 Smoke Control and Smoke Exhaust System	138
9 Heating, Ventilating and Air Conditioning	140
9.1 General Requirements	140
9.2 Heating	140
9.3 Ventilating and Air Conditioning	141
10 Electric System	146
10.1 Fire Power Supply and Distribution	146
10.2 Power Line and Electric Equipment	148
10.3 Fire Emergency Lighting and Evacuation Indicating Sign	150
11 Timber Buildings	153
12 City Road Tunnel	159
12.1 General Requirements	159
12.2 Fire Water Supply and Fire Extinguishing Equipment	161
12.3 Ventilating and Smoke Exhaust System	163
12.4 Fire Alarm System	164
12.5 Power Supply and Other Requirements	165
Appendix A -- Calculation Method of Building Height and Storeys	166
Appendix B -- Calculation Method of Fire Separation Distance	168
Performance Criteria of Load-bearing Structure in Tunnel	169
Explanation of Wording in This Code	170
List of Quoted Standards	171

1 General Provisions

1.0.1

This code is formulated with a view to preventing fire accidents in buildings, reducing fire hazards and protecting personal and property safety.

1.0.2

This code is applicable to the following constructed, renovated and extended buildings:

- 1 Factory-buildings;
- 2 Storages;
- 3 Civil buildings;
- 4 Class A, B, C liquid tanks (tank farm);
- 5 Combustible and combustion-supporting gas tanks (tank farm);
- 6 Stackyard for combustibles;
- 7 City road tunnels.

If special national standards are available, the fire protection design of buildings for civil air defense engineering, petroleum and natural gas engineering, petrochemical engineering, thermal power plants and substations should comply with such standards.

1.0.3

This code is not applicable to the fire protection design of buildings such as factory-buildings (storages) for gunpowder, explosive and their products as well as fireworks and firecrackers.

1.0.4

Where occupancies for different purposes are arranged in the same building, fire separation shall be provided between them. The fire protection design for this building and their functional occupancies shall be determined according to the relevant requirements of this code.

1.0.5

The fire protection design of buildings shall comply with the relevant national principles and policies, and guarantee, on the whole, safety and usability, advanced technology as well as economy and rationality according to the characteristics of buildings and fire hazards in them.

1.0.6

In addition to meeting the requirements of this code, the buildings with height

GB 50016-2014 (2018 Edition) single-storey Category D factory-buildings with building area not greater than

1,000m

2, the fire resistance class may adopt Class III.

3.2.4 As for the buildings using or storing particularly valuable equipment or

articles such as machinery, instruments and apparatuses, the fire resistance class shall not be less than Class II.

3.2.5 The fire resistance class of boiler house shall not be less than Class II. In case of coal-fired boiler house with total evaporation not larger than 4t/h, its fire resistance class may adopt Class III.

3.2.6 The fire resistance class of oil immersed transformer room and high-voltage

distribution device room shall not be less than Class II, and other fire protection design shall meet the requirements of current national standard "Code for Design of

Fire Protection for Fossil Fuel Power Plants and Substations" (GB 50229) and other relevant standards.

3.2.7 The fire resistance class of high rack storages, high-rise storages,

Category A storages, multi-storey Category B storages and multi-storey

Category C storages storing combustible liquid shall not be less than Class II.

The fire resistance class of single-storey Category B storages, single-storey

Category C storages, multi-storey Category C storages storing combustible solids and multi-storey Categories D and E storages shall not be less than

Class III.

3.2.8 The fire resistance class of grain silos shall not be less than Class II; the grain silo with Class II fire resistance may adopt steel silo.

The fire resistance class of grain storehouses shall not be less than Class III; the bulk grain storehouses with Class II fire resistance may be adopted with metal load-bearing elements without fire protection.

3.2.9 The fire resistance rating of fire walls in Categories A and B

factory-buildings and Categories A, B and C storages shall not be less than

4.00h.