



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

GB 50694-2011

**Code for design of fire protection and prevention of alcoholic
beverages factory**

酒厂设计防火规范

(English Translation)

Issued on: July 26, 2011

Implemented on: June 1, 2012

Issued by: Ministry of Housing and Urban-Rural Development of PRC;

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1.0.1 This Code is formulated to prevent fires in alcoholic beverages factory, reduce

fire hazards, protect personal and property safety.

1.0.2 This Code applies to the fire protection design of new construction, reconstruction, expansion projects of alcoholic beverages factory and edible alcohol factories such as Chinese spirits, wine, brandy, rice wine, beer, etc. It is not suitable for the fire protection design of natural cave wine warehouses in alcoholic beverages factory.

1.0.3 The fire protection design of alcoholic beverages factory shall follow the relevant national policies and guidelines, be safe, reliable, technologically advanced, economically reasonable.

1.0.4 In addition to the provisions of this Code, the fire protection design of alcoholic beverages factory shall also comply with the provisions of the current relevant national standards.

2.0.1 Alcoholic beverages factory

A factory that produces alcoholic beverages. It includes factories producing various types of alcoholic beverages such as Chinese spirits, wine, brandy, rice wine, beer, mainly including raw material warehouse, raw material crushing workshop, winemaking workshop, wine warehouse, blending workshop, filling and packaging workshop, finished product warehouse and other production and storage facilities.

2.0.2 Alcohol percentage

The volume percentage of ethanol in alcoholic beverages.

2.0.3 Alcoholic beverages warehouse

An indoor place where beverages are stored in containers such as pottery jars, oak barrels or metal storage tanks.

3.0.3 Unless otherwise specified in this Code, the fire resistance level, allowable

number of floors and maximum allowable building area of each fire compartment of the factory building and warehouse shall comply with the relevant provisions of the current national standard "Code for fire protection design of buildings" GB 50016.

3.0.4 The production rooms for blending, filling, packaging, temporary storage of finished products, etc. in the joint factory building for the production of Chinese spirits and brandy shall be separated from other parts by fire separation measures; when the process conditions permit, they shall be separated by fire walls. When an automatic fire extinguishing system and an automatic fire alarm system are installed in the production joint plant, the maximum allowable building area of each fire compartment can be increased to 2.5 times the area specified in the current national standard "Code for fire protection design of buildings" GB 50016.

4.1 General requirements

4.1.1

The site selection of the alcoholic beverages factory shall comply with the requirements of urban and rural planning; it should be located at the edge of the planning area or in a

relatively independent safe area. The alcoholic beverages factory shall reasonably determine the layout of different functional areas and set up fire trucks and fire water sources, according to its production process, fire hazard and functional requirements, combined with terrain, meteorological and other conditions.

4.1.2

The Chinese spirits storage tank farm and edible alcohol storage tank farm should be located in a relatively independent safe area of the factory area; it should be located on the upwind side of the factory area's minimum frequency wind direction throughout the year. The site of the man-made cave Chinese spirits depot shall have good geological conditions; it shall not be selected in areas with geological disaster risks.

4.1.3 Chinese spirits warehouse, man-made cave Chinese spirits depot, edible alcohol

warehouse, Chinese spirits tank farm, edible alcohol storage tank farm, brandy aging warehouse shall be arranged separately from other production areas and office, scientific research, living areas.

4.1.4 Except for man-made cave Chinese spirits depot and wine aging warehouse, other category A and category B production and storage places of the alcoholic beverages factory shall not be set up underground or semi-underground.

4.1.5 It is strictly prohibited to set up employee dormitories in the factory building; meanwhile it shall comply with the following provisions.

1 Offices, lounges and other rooms shall not be set up in category A and category B factory buildings. When it must be built adjacent to the factory building, its fire resistance level shall not be lower than Level 2; it shall be separated by a non-combustible explosion-proof wall with a fire resistance limit of not less than 3.00 h; an independent safety exit shall be set up.

2 The offices and rest rooms set up in category C factory buildings shall be separated from the factory buildings by non-combustible walls with a fire resistance of not less than 2.50 h and floors with a fire resistance of not less than 1.00 h; at least one independent safety exit shall be set up. When doors and windows are required on the partition walls, category B fireproof doors and windows shall be used.

4.1.6 It is strictly prohibited to set up employee dormitories in warehouses; meanwhile it shall comply with the following provisions.

1 It is strictly prohibited to set up offices, rest rooms and other rooms in category A and B warehouses; meanwhile they shall not be built adjacent to category A and B warehouses.

2 The offices, rest rooms, management rooms set up in category C and category D warehouses shall be separated from the warehouses, by non-combustible walls with a fire

resistance of not less than 2.50 h and floors with a fire resistance of not less than 1.00 h; independent safety exits shall be set up. If doors and windows are required on the partition walls, category B fireproof doors and windows shall be used.

4.1.7 The filling workshop of Chinese spirits and brandy shall comply with the following provisions.

1 It shall be separated from the blending workshop, bottle washing workshop, packaging workshop by a non-combustible partition wall, which has a fire resistance limit of not less than 3.00 h.

2 A passage with a width of not less than 3 m shall be left between each production line.

3 The capacity of the finished wine filling tanks installed on each production line shall not be greater than 3 m³.

4 When the single tank capacity of the finished wine filling tanks of each production line is greater than 3 m³ but less than or equal to 20 m³, meanwhile the total capacity is less than or equal to 100 m³, the filling tanks can be set on the first or second floor of the building near the outer wall; it shall be separated from the filling workshop, blending workshop, packaging workshop, bottle washing workshop, etc.

by a non-combustible partition wall with a fire resistance limit of not less than 3.00 h and a floor slab with a fire resistance of not less than 1.50 h; an independent safety exit shall be set at the location where the filling tanks are set.

5 When the single tank capacity of the finished wine filling tanks of each production

line is greater than 20 m³ or the total capacity is greater than 100 m³, the filling tanks shall be set up independently outside the building.

4.1.8 When the Chinese spirits blending workshop and its wine warehouse, the brandy blending workshop and its aging warehouse are located in the same building, the blending workshop shall be located on the first floor of the building near the outer wall;

it shall be divided into independent fire compartments and independent safety exits. No door or window openings shall be made on the firewall.

4.1.9 The fire control room, fire pump room, self-provided generator room, transformer and distribution room, etc. shall not be located in or adjacent to the Chinese spirits storage tank farm, edible alcohol storage tank farm, Chinese spirits warehouse, man-made cave Chinese spirits depot, edible alcohol warehouse, wine aging warehouse, brandy aging warehouse. When set inside other buildings, they shall be separated from other parts by non-combustible partition walls with a fire resistance limit of not less than 2.00 h and floor slabs with a fire resistance limit of not less than 1.50 h; the doors on the partition walls shall