



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

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Cold storage construction and acceptance standards

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1 General

1.0.1 This standard is formulated in order to make the cold storage construction and acceptance level meet the food refrigeration technology and hygienic requirements, promote technological progress, ensure project quality and safety, and improve economic benefits.

1.0.2 This standard is applicable to the new construction, expansion, expansion and maintenance of subcritical vapor compression direct refrigeration systems using ammonia, halogenated hydrocarbons and their mixtures, and carbon dioxide as refrigerants and indirect refrigeration systems using carbon dioxide and brine as refrigerants. Construction and acceptance of rebuilt food cold storage.

1.0.3 This standard should be used in conjunction with the current national standard "Unified Standard for Construction Quality Acceptance of Construction Engineering" GB 50300.

1.0.4 The construction and acceptance of the cold storage project shall not only implement the provisions of this standard, but also comply with the relevant current national standards.

2.0.1 Cold store engineering

An engineering entity formed through the construction of various cold storage buildings and their ancillary facilities and the installation of their supporting lines, pipelines, equipment, etc.

2.0.2 Cold store

Storage buildings that use artificial refrigeration to cool down and have cold insulation functions, including warehouses, refrigeration machine rooms, transformer and distribution rooms, etc.

2.0.3 storehouse

The main body of the cold storage building and its auxiliary rooms such as stairwells, elevator rooms, and halls.

2.0.4 hallway anteroom

The passages set up for the entry and exit of goods in refrigerated rooms, freezers, cooling rooms, and freezing rooms are divided into temperature-controlled halls with artificial cooling and non-temperature-controlled halls without artificial cooling.

2.0.5 cold room

A general term for rooms that use artificial refrigeration in cold storage, including cold storage rooms, ice storage rooms, cooling rooms, freezing rooms, temperature-controlled hallways, and temperature-controlled closed platforms.

2.0.6 cold storage room

Room for storage of cooled processed products.

2.0.7 Refrigerating machine room

The room where the refrigeration compressor unit and refrigeration auxiliary equipment are installed.

2.0.8 refrigeration system refrigerating system

According to the refrigerating cycle, the machinery and equipment connected in sequence through pipeline sealing connection and filling with refrigerant, including the prime mover.

2.0.9 Assembly cold store

The warehouse uses light composite sandwich panels such as metal surface insulation sandwich panels as thermal insulation and enclosure structures, and is a cold storage assembled on site.

2.0.10 double skin metal faced insulating sandwich panels

A self-supporting composite panel consisting of a bimetallic face and an insulating core bonded between the two metal faces.

2.0.11 Inspection inspection

It is an activity to measure, inspect, test, etc. the characteristics and performance of the inspected item, and compare the results with the requirements stipulated in the standard to

determine whether each performance of the item is qualified.

2.0.12 site inspection

It is an activity to inspect the building materials, components, equipment and appliances entering the construction site according to the requirements of relevant standards, and to confirm whether their quality, specifications and models meet the requirements.

2.0.13 witness test evidence testing

Under the witness of the project supervision (construction) unit, the construction unit randomly selects samples from the construction site in accordance with relevant regulations, and sends them to a testing agency with corresponding qualifications for inspection.

2.0.14 Repeat test

After the building materials and equipment enter the construction site, on the basis of the appearance quality inspection and the verification of the quality certification documents to meet the requirements, according to the relevant regulations, samples are taken from the construction site and sent to the laboratory for inspection.

2.0.15 Inspection lot inspection lot

A test object composed of a certain number of samples that is collected for sampling inspection under the same production conditions or in a prescribed manner.

2.0.16 acceptance

The quality of construction projects is based on the self-inspection of the construction unit, organized by the responsible party for project quality acceptance, with the participation of relevant units of project construction, to conduct sampling inspections on the quality of inspection batches, sub-items, divisions, unit projects and their concealed projects. Review the technical documents, and confirm whether the project quality is qualified in written form according to the design documents and relevant standards.

2.0.17 dominant item

Inspection items that play a decisive role in safety, energy saving, environmental protection and main functions in construction engineering.

2.0.18 general item

Inspection items other than master control items.

2.0.19 quality of appearance

The external quality and functional status of the project reflected by observation and necessary tests.

2.0.20 repair repair

Renovation and other measures are taken for the construction quality that does not meet the standard requirements.

2.0.21 rework

Measures such as replacement, re-making, and re-construction are taken for parts whose construction quality does not meet the standards.

3 basic rules

3.0.1 The construction site should have technical documents such as construction organization design and construction technical plan reviewed and approved by the project technical leader; construction personnel should have received training and assessment suitable for the work they are engaged in. The construction site should have a sound quality management system, corresponding construction technical standards, construction quality inspection system and comprehensive construction quality level assessment and assessment system.

3.0.2 The construction unit should establish a corresponding management system and be equipped with necessary equipment, utensils and signs. Before the start of construction, the construction unit should formulate the construction site safety production and fire protection system and related emergency plans, and should formulate the corresponding construction site fire work approval procedures according to the large amount of flammable materials in the construction process of the cold storage project; In addition to meeting the above requirements, it should also meet the relevant provisions of the current national standard "Technical Specifications for Fire Safety at Construction Sites of Construction Engineering" GB 50720.

3.0.3 Before cold storage construction, the following documents should be available.

- 1 The engineering geological survey report and construction drawing design documents reviewed and approved by relevant units;
- 2 Records of technical disclosure (joint review of drawings) by the design unit to the construction unit according to the design documents of the construction drawings;
- 3 The construction organization design or construction scheme reviewed and approved by