

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

WS/T 696-2020

**Hygienic specifications for the operation and management of
air conditioning and ventilation systems in office and public
places during the COVID-19 epidemic**

(English Translation)

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Foreword

All technical content of this standard is mandatory.

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

Drafting organizations of this standard. China Center for Disease Control and Prevention Environmental and Health Related Product Safety Institute, Shanghai Center for Disease Control and Prevention Heart, Guangdong Provincial Center for Disease Control and Prevention.

1 Scope

This standard specifies the hygienic quality requirements, operation management requirements, and daily inspections of air conditioning and ventilation systems during the new crown pneumonia epidemic.

Monitoring requirements.

This standard applies to the hygienic management of air conditioning and ventilation

systems in office and public places during the new crown pneumonia epidemic, and other infectious diseases refer to the implementation during the epidemic.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this file. For undated references, the latest version (including all amendments) applies to this document.

GB/T 18204.5 Hygienic inspection methods for public places Part 5: Centralized air conditioning and ventilation systems GB 37488 Hygienic indicators and limit requirements for public places GB 50365 Air Conditioning and Ventilation System Operation Management Standard GB 50736 Civil Building Heating Ventilation and Air Conditioning Design Code WS 394 Hygienic Specification for Centralized Air Conditioning and Ventilation System in Public Places WS/T 395 Hygienic Evaluation Specification for Centralized Air Conditioning and Ventilation System in Public Places WS/T 396 Specification for cleaning and disinfection of centralized air conditioning and ventilation systems in public places

3 Terms and definitions

The following terms and definitions apply to this document.

Office buildings

Buildings for government agencies, organizations, enterprises and institutions to handle administrative affairs and engage in various business activities.

Low-, medium-, and high-risk regions Based on the county (city, district, and banner) as a unit, comprehensive research and judgment based on population and incidence, and scientifically divided epidemic risk levels.

Air conditioning ventilation system for the purpose of air conditioning and ventilation, all the equipment, which centrally process, transport and distribute the working medium, and control its parameters, the sum of pipes and accessories, instruments and meters.

All-air air conditioning system an air-conditioning system in which the indoor load in the air-conditioning area is borne by the air that has been heated or cooled.

Fan coil system with fresh air the system in which air and water jointly bear the cold and heat load of the air-conditioned room, in addition to sending treated outdoor air into the room, it also in the room, there is a terminal device using water as the medium to cool or heat the indoor air.

Fan coil system without fresh air the fan drives the indoor air to flow, and the terminal equipment cools or heats the indoor air to reduce or increase the indoor air temperature.

To meet people's comfort requirements.

Multi-connected air conditioning system A single refrigeration system consisting of one or several air-cooled outdoor units connected to several direct evaporative indoor units of different or the same type and capacity Circulation system, which can directly provide treated indoor air to one or several areas.

Split air conditioner it is composed of an indoor unit and an outdoor unit, which are installed indoors and outdoors, respectively, connected by pipelines and wires.

Air change flow

The amount of outdoor air entering the room from the air conditioning and ventilation system per unit time, in $\text{m}^3/(\text{h} \cdot \text{person})$.

4 Hygienic quality requirements

4.1

The hygienic quality of air conditioning and ventilation systems in public places should meet the requirements of WS 394.

4.2

The fresh air volume of the air-conditioning ventilation system in public places shall meet the requirements of GB 37488.

5.1.1 Preparation before opening

5.1.1.1

The source of fresh air and the scope of air supply should be mastered. When the type of air-conditioning and ventilation system, the range of air supply, etc. are unclear, it should Turn off the air conditioning system at time.

5.1.1.2

Check whether the filter, surface cooler, heating (humidifier) and other equipment are operating normally, and whether the inner surface of the air duct is clean. response Equipment and components such as open cooling towers and air handling units shall be cleaned, disinfected or replaced. Respond to the inner surface of the air duct and air supply sanitation the quality is tested, and it can be operated only after being qualified.

5.1.1.3

The fresh air outlet and its surrounding environment should be kept clean and the fresh air should not be polluted.

5.1.1.4

The short-circuit problem of the fresh air outlet and exhaust outlet or the hidden danger of short-circuit under occasional weather conditions should be investigated. If unable to enter

in the short term If the physical location is rectified, the air conditioning and ventilation system should be turned off.

5.1.1.5

Before turning on the fresh air system in winter in cold areas, ensure that the freeze protection function of the unit is safe and reliable.

5.1.2 Management and maintenance during operation

5.1.2.1

Low-risk areas should be operated with the maximum fresh air volume, and the return air should be turned off as much as possible; medium and high-risk areas should be closed, such as return air the air outlet (pipeline) or air-conditioning box is in use with a high-efficiency and above-grade filter device, or an effective disinfection device is installed, and the return air can be turned off. Such as it has a mixed air structure. The mixed air components of the system should be closed before opening, and the mixed air mode should be stopped.

5.1.2.2

When air conditioning and ventilation systems are used in crowded places, indoor air flow should be enhanced; windows, doors, or fans should be opened Wait for the ventilation device, or use natural ventilation for 20 minutes to 30 minutes every 2 hours to 3 hours in the air conditioner.

5.1.2.3

For shopping malls, office buildings and other places with a large flow of people, the ventilation should be strengthened;

The fresh air and exhaust system of the ventilating system should be operated in advance or closed for 1 h after a delay.

5.1.2.4

The sanitary management of condensate water such as air handling units and fan coils, and cooling tower cooling water should be strengthened.

5.1.2.5

The filters, vents, air handling units, surface coolers, heaters (humidifiers), Equipment and components such as the condensate pan should be cleaned, disinfected or replaced.

5.1.2.6

U-shaped pipes such as sewer pipes, air handling devices, bathroom floor drains, and condensate drain pipes of air conditioning units shall be inspected weekly.

Water seal, replenish water in time when water is lacking.