CAAC

Preventing Spread of Coronavirus Disease 2019 (COVID-19) Guideline for Airports

Eighth Edition

In order to continue efforts in implementing routine COVID-19 prevention protocols, reinforce various measures aimed at preventing "disease importation and domestic resurgence", and tighten measures aimed at curbing "virus spread via both human beings and cargo", and in an effort to further optimize and improve prevention and control measures taken by airports, this eighth edition of *Preventing the Spread of Coronavirus Disease 2019 (COVID-19) Guideline for Airports* is developed, taking into account of the changing epidemic situation, virus mutations and the efforts in the establishment of an immune barrier among front-line personnel.

1. Facilities and Area Setting

1.1 Calibrated non-contact thermometers shall be equipped at terminals, and all arriving and departing passengers shall have their body temperatures measured. Inspection points shall be set up at the entrance of terminals to make sure that passengers are wearing masks.

1.2 If there are high risk areas in the points of origin, in the scope of cities, dedicated personnel shall be assigned to check the health QR codes of passengers entering the terminals. Negative results of nucleic acid tests shall be checked if necessary. The validity for test results varies in accordance with the regulations of the relevant local departments.

1.3 Passengers shall be provided with hand sanitizers and disinfection products at proper places of terminals, and those products shall be replaced or replenished in time.

1.4 Arriving flights from countries or regions severely impacted by COVID-19 or flights carrying passengers with suspicious symptoms shall be parked in fixed stands, and special passages for passengers shall be set up. The supporting service shall follow the standards of remote stands.

1.5 The Setting-up of Quarantine Area for Feverish Passengers

1.5.1 Quarantine area shall be set up in a place that is well-ventilated with low passenger density, relatively independent, and convenient for closed-off management.

1.5.2 A fully enclosed tent could be used for re-checking body temperature.

1.5.3 Warning lines or obvious signs shall be set up around the quarantine area.

1.5.4 Necessary disease prevention and control materials shall be stocked in the quarantine area, such as air sterilizers, medical protective clothing, medical masks, goggles, disposable sterile gloves, medical waste bags, etc.

2. Handling of Feverish Passengers

2.1 Once feverish passengers are found, they shall be required to record personal information and their means of contact immediately.

2.2 Medical departments of airports shall be notified in a prompt manner for re-checking body temperature and supporting local disease control and prevention institutions to carry out initial epidemiological investigations and quarantine. If the passenger is initially deemed as a suspicious case, the personal information and means of contact of his/her close contacts (has a distance of less than one meter to the suspicious case with no effective personal protection) shall be recorded.

2.3 Local health departments shall be informed, and support shall be provided for the take-over of the feverish passengers concerned.

2.4 The quarantine area and the walking paths of feverish passengers shall be disinfected when those passengers left the area.

3. Maintaining Effective Distance

3.1 In a bid to reduce passenger concentration, waiting and personnel contacts, it is encouraged to use self-service check-in through machines or mobile phone applications, to scan the QR code when boarding, and to optimize the process of baggage-claim.

3.2 In order to avoid passenger concentration, the number of people in elevators every time shall be limited; the frequency of ferry buses shall be increased; barrier posts and ground markings shall be set up or made in the baggage-claim area to keep passengers standing with over one meter between each other.

3.3 Passenger Traffic Flow Control in Terminals

3.3.1 Please refer to Attachment 1 for specific traffic flow control measures for different crowd densities.

3.3.2 Passengers shall be informed and guided to maintain a social distance of over one meter. When the density of passengers in the waiting hall is too high, they shall be diverted in a timely manner. Massive concentration shall be prevented.

3.4 Air-conditioning System and Ventilation

3.4.1 Practical measures can be taken according to the structure and layout of terminals as well as local climate to improve air circulation.

3.4.2 If the temperature is agreeable, doors and windows can be opened to allow in natural wind.

3.4.3 Where all air-conditioning systems are used, full fresh air operation mode can be started as appropriate, and exhaust system shall be turned on to keep the air clean. Cleaning and disinfection of the air-conditioning systems shall be carried out regularly. Cleanliness quality, operating management, hygienic evaluation, as well as cleaning and disinfection of the air conditioning and ventilation systems shall conform to the *Standards for Central Air Conditioning and Ventilation Systems in Public Places* (WS 394-2012), the *Guideline for the Operation Management of Air Conditioning and Ventilation Systems in Offices and Public Places during the COVID-19*, the *Hygienic Evaluation Criterion for Central Air Conditioning and Ventilation Systems in Public Places* (WS/T 395-2012) and the *Standards for Cleaning and Disinfection of Central Air Conditioning and Ventilation Systems in Public Places* (WS/T 396-2012).

3.4.4 When the indoor temperature cannot meet the requirements, the air supply volume can be reduced. When the flow of people is large, the fresh air and exhaust system of the air conditioning system shall continue to operate for a period of time after the end of flights every day.

3.4.5 When the density of passengers in the waiting hall is too high, the ventilation efficiency shall be adjusted according to the indoor crowd density at airports. Please refer to Attachment 1 for details.

3.4.6 Ferry buses can operate at a low speed with windows open or using the outer circulation of the air conditioning system to maintain natural ventilation. Passengers shall maintain social distance and the frequency of ferry buses shall be increased to lower the passenger load factor.

4. Disinfection of Equipment and Environment

4.1 Ferry Buses

4.1.1 For the disinfection methods of ferry buses please refer to the *Technical Requirements for the Disinfection of Public Transport Vehicles and Personal Protection during the COVID-19* (WS 695-2020).

4.1.2 Preventative disinfection needs to be performed after the daily operation, during which frequently touched surfaces such as hanging straps, handrails and seats shall be the focuses and be wiped or sprayed with disinfectant. Tires do not need to be disinfected.

4.1.3 Support shall be provided for ferry buses used for international inbound flights. Cleaning and disinfection of air conditioning filter shall be carried out regularly.

4.1.4 If a ferry bus has carried passengers with suspicious symptoms, it shall be subject to terminal disinfection by professionals.

4.2 Security Inspection Areas

4.2.1 Security inspection aisles shall be equipped with hand sanitizers.

4.2.2 Cleaning and disinfection shall be conducted on regular basis every day, and the frequency of disinfection shall be adjusted according to the flow of people.

4.2.3 After the daily operation, areas and facilities such as security inspection sites and waste bins shall be wet-cleaned, and all-round disinfection needs to be performed.

4.2.4 Key areas (document verification counters, baggage packing areas, baggage plates, hand-held metal detectors) and security screening facilities shall be disinfected.

4.3 Trash Cans

4.3.1 Wastes shall be collected and sorted. Disinfection of trash cans shall be performed after garbage collection, either by spraying or wiping with 500mg/L chlorine-based disinfectant. The used personal protection equipment shall be collected with dedicated trash cans. These wastes shall be put in special waste bags, which shall be tightly knotted and be disinfected by spraying with 500mg/L chlorine-based disinfectant.

4.3.2 When potentially contaminated wastes are found, the wastes shall be disposed of as medical wastes in a centralized way.

4.4 Airport Public Places

Disinfection of airport public areas shall be carried out in accordance with the following requirements and the provisions of the relevant departments.

4.4.1 Preventative disinfection shall be carried out for in-door air, public environment and object surface as needed. The disinfection frequency of frequently touched objects shall be conducted based on the volume of passenger flow.

4.4.2 It is recommended that disinfection of key crowded areas shall be carried out at least twice a day.

4.4.3 When suspected cases, confirmed cases or passengers with suspicious symptoms, or contaminated body fluids such as vomit and blood are found, terminal disinfection shall be performed by professionals.

4.4.4 Please refer to Attachment 1 for details of environmental disinfection.

5. Supporting Measures for Inbound Passenger Flights

Supporting measures for inbound passenger flights shall be carried out in accordance with the following requirements and the provisions of the relevant departments.

5.1 A separated waiting area shall be set up for flights carrying passengers with suspicious symptoms or inbound passengers from countries or regions severely impacted by COVID-19, and passengers shall be provided with basic daily necessities such as food. Passengers shall wear surgical masks or masks of higher standards when deplaning. After passengers' departure, preventative disinfection shall be performed in the quarantine waiting area.

5.2 A separate baggage carousel shall be designated at baggage-claim area or baggage claim shall be completed outside the terminals to avoid crowding with other flight passengers and reduce the chance of cross infection.

5.3 A fast and dedicated passage shall be set up for inbound crew members to conduct epidemiological investigations, nucleic acid tests and checking, with separating waiting areas or separating entry time to avoid mixture with passengers on the same aircraft and crew members from other flights.

5.4 Household and medical wastes in the designated entry area shall be transported by a dedicated channel after disinfection. If a dedicated channel for transport is not available, the wastes shall be transported on a relatively fixed route and shall avoid peak hours.

6. Supporting Measures for Inbound Cargo Flights

Please refer to Appendix 3 of the *Preventing Spread of Coronavirus Disease 2019 (COVID-19) Guideline for Airlines* for the risk levels of imported cargo and its transshipment.

6.1 The Setting-up of Airport Cargo Station and Storage Area

6.1.1 The setting-up of cargo transshipment area

6.1.1.1 After landing, the cargo shall in sequence go through places of the apron, unloading area, transfer area, sorting area, and cargo storage warehouse. The transfer tools and places for cargo with different risks and types shall be set up and be marked.

6.1.1.2 Two transshipment lines for cold chain cargo and regular cargo shall be set up respectively before the cargo is unloaded and transferred to the sorting area. The two types of cargo transfer areas shall not overlap with each other, and the operating equipment and transportation vehicles involved shall be used exclusively in their areas to avoid mixture.

6.1.1.3 When cargo arrives at the sorting area, three operation lines shall be established for cold chain cargo, regular cargo with high or medium risk levels, and regular cargo with low risk level in the subsequent procedures such as dissembling, transfer, and warehouse storage. The three operation areas shall not cross each other, and the operating equipment and transportation vehicles involved shall be marked and used exclusively in their areas to avoid mixture.

6.1.1.4 Complete physical separation shall be achieved as much as possible by means of ground markings, railings and fence to separate the procedures of different cargo transshipment and operation.

6.1.1.5 Equipment and areas with different risks shall be marked with highly recognizable colors.

6.1.1.6 Disinfection points shall be set up respectively in the cargo sorting area and in the area where the cold-chain cargo and regular cargo (container) with high or medium risks are loaded for transshipment.

6.1.2 The Setting-up of Storage Area

6.1.2.1 For sorting and storage, cargo with different types and risk levels shall not be mixed but instead shall be placed in separate sections or warehouses.

6.1.2.2 Cold-chain cargo, regular cargo with high or medium risk levels, and regular

cargo with low risk level shall not be mixed but instead be placed in separate sections.

6.1.2.3 Stored cargo with different types and risks and their corresponding inventory areas shall be marked with highly recognizable colors.

6.1.3 Environmental sampling and monitoring of COVID-19 at cold chain workplaces shall be carried out on a regular basis. The sampling frequency shall be subject to the provisions of relevant local department to whose jurisdiction the airport belongs.

6.2 Principles and Procedures for Airport Cargo Transshipment

6.2.1 Preparations for cargo handover shall be made based on the information of cargo types and the risk classification of cargo flights.

6.2.2 The cabin door handles of the aircraft shall be wiped with disinfectant before unloading of the cargo.

6.2.3 The outer surface of the cargo container shall be disinfected after unloading and before the container is transferred to the sorting area. In the process of unpacking and sorting, the outer packaging of goods shall be disinfected and then put into the storage warehouse.

6.2.4 In the operation line of cargo loading and unloading, transshipment, and disinfection, the two disinfection locations shall be regarded as separation points, and from front to back, the three areas shall be deemed as contaminated areas, semi-contaminated areas, and clean areas respectively. Different areas shall be marked and the goods shall not flow in the reverse direction during operation.

6.3 Principles and Procedures of Preventive Disinfection of Cargo

6.3.1 Preventive disinfection of the outer packaging of all cargo (including cold chain cargo) unloaded from cargo flights with high or medium risk, as well as frequently touched surfaces such as the outer surface, the inner wall and the door handles of containers shall be carried out.

6.3.2 The outer packaging of cargo and containers shall respectively subject to preventive disinfection, and repeated disinfection will not be performed in principle.

6.3.3 If the cargo needs to be unpacked, the container shall be disinfected from outside to inside, and frequently touched surfaces such as the outer surface, the inner wall shall be disinfected in turn. Perishable materials shall be wiped or rinsed with clean water after disinfection to remove disinfectant residues.

6.3.4 When disinfecting the outer packaging of cargo, the six sides, namely the up, front, left, right, back, and bottom side of the surface shall be thoroughly sprayed and disinfected when conditions permit.

6.3.5 For commodities that are not suitable for disinfection, such as hazardous chemicals, grain, fodder and fodder additives, live animals, and precision instruments, as well as cargo that have no outer packaging or that are likely to be contaminated by disinfectant penetration, preventive disinfection shall not be implemented.

6.3.6 Goods that are not suitable for disinfection and goods that have completed preventive disinfection shall be marked on the outer surface respectively to facilitate identification.

6.4 Disinfection of Airport Cargo Facilities and Environment

6.4.1 After the cargo are picked up or transferred, preventative disinfection of frequently touched surface of the storage place, operating equipment and vehicles and the public areas shall be carried out based on different risks of exposure. For specific disinfection frequency, please refer to Attachment 2.

6.4.2 The outer packaging, plastic film and other waste generated during the operation process shall be collectively disinfected and shall go through innoxious treatment.

6.5 Selection of Disinfectant

6.5.1 Preventive disinfection of regular imported cargo and related equipment can use chlorine-based disinfectant (500mg/L), peracetic acid (0.1-0.2%), quaternary ammonium salts (1000-2000mg/L), hydrogen peroxide (1-3%), chlorine dioxide (250mg/L) and so on.

6.5.2 Disinfectant shall be sprayed or wiped evenly on the surface of cargo and cargo equipment or the surface of ground. The surface shall be slightly wet for a period of reaction.

6.5.3 For other precautions, please refer to the *Technical Guidelines for Preventive Disinfection and Protection of Imported Non-cold-chain Container and Outer Packaging of Cargo* (COVID-19 Mechanism (2020) No.15).

6.5.4 For the preventive disinfection of cold chain cargo, the transport and storage facility, please refer to the *Technical Guidelines for the Prevention, Control, and Disinfection of COVID-19 during the Cold Chain Food Production and Operation*

Process (COVID-19 Mechanism (2020) No.245).

6.6 Other Matters

6.6.1 The preventive disinfection standards for baggage on international or regional passenger flights can be implemented with reference to the disinfection provisions for regular imported cargo, with emphasis on passenger flights with medium and high-risk levels.

6.6.2 In order to ensure the traceability of the disinfection results during the operation period, the implementing entity shall record the disinfection in detail, including the date, personnel, location, objects for disinfection, name of the disinfectant, concentration and reaction time. Relevant data and records shall be kept at least for 2 years.

7. Prevention and Control Measures for Ground Personnel Working at the Entry Areas

7.1 Differentiated Management of Personnel

Differentiated management of ground personnel working at the entry areas shall be applied and be divided into three levels: high risk, medium risk and low risk according to exposure risks. The recommended risk levels are as follows:

7.1.1 High risk personnel: those who have direct or close contact (within 1 meter) with inbound passengers or crew members; and those who have direct contact with imported high/medium risk cargo (baggage included), aircraft and aviation wastes (garbage and sewage, etc.), as well as the unsterilized facilities and equipment used by inbound passengers, crew members and cargo transshipment (baggage included).

7.1.2 Medium risk personnel: those who have direct or close contact (within 1 meter) with high-risk personnel, as well as those who have direct contact with the unsterilized facilities and equipment used by high risk personnel.

7.1.3 Low risk personnel: those who have direct or close contact (within 1 meter) with medium risk personnel under effective protection.

7.2 Prevention and Control Requirements for Personnel

7.2.1 Preparation before working

7.2.1.1 All ground personnel working in the entry areas must complete registration with true name, and shall not engage in ground services for domestic flights when

he/she working in the entry area.

7.2.1.2 All ground personnel working in the entry area must complete their vaccination and start to work with vaccination certificates.

7.2.1.3 All ground personnel working in the entry area shall be equipped with adequate and effective personal protection equipment as well as disinfection products.

7.2.1.4 All ground personnel working in the entry area shall participate in technical training on the COVID-19 prevention and control on a regular basis, including professional training on correct wearing of protection equipment and related requirements of position prevention and control, and shall pass the exam of theoretical knowledge and operating skills before starting to work.

7.2.2 Prevention and control requirements during working

All ground personnel working in the entry area shall enhance their awareness of COVID-19 prevention and control, and pay attention to personal protection to avoid cross-infection. At the same time, they shall pay attention to their health status all the time.

7.2.2.1 Personal protection for ground personnel

High risk personnel shall at least wear KN95/N95 masks, goggles or face screens, disposable medical rubber or nitrile gloves, and disposable strip caps. Ground staff shall also wear disposable shoe covers and protective clothing when they do not affect operation safety.

Medium risk personnel shall at least wear surgical masks, goggles or face screens, and disposable medical rubber or nitrile gloves.

Low risk personnel shall at least wear surgical masks, and disposable medical rubber or nitrile gloves.

Prevention and control standards vary for different types of personnel, and please refer to Attachment 3 for details.

7.2.2.2 Considerations regarding personal protection

(1) The mask shall be close to the face, covering the nose and mouth completely. When the mask is on or being removed, hands must not touch the outer layer of the mask to avoid hands contamination.

(2) Once dampened by secretions or contaminated by other contaminants, facial masks must be replaced immediately with new ones, and hands shall be cleaned with sanitizer both before and after the replacement.

(3) Alcohol-based disinfection wipes or instant hand sanitizer shall be used for hand cleaning and disinfection. Hands shall be kept away from nose, mouth and eyes when it is not sure whether they are clean or not.

(4) The disposable PPEs generated in the entry area shall be put in yellow medical waste bags, which shall be tightly knotted for centralized disposal as medical wastes.

(5) Reusable goggles shall be sterilized and dried every time after use. Goggles with anti-fogging films shall avoid being wiped with disinfectant. Instead, it is recommended that they be washed with clean water, and then exposed to close-range direct ultraviolet lighting for over 30 minutes in rooms with no person inside.

(6) With regard to procedures for wearing and removing protective clothing, please refer to Appendix 4 of the *Preventing the Spread of Coronavirus Disease 2019 (COVID-19) Guideline for Airlines.*

7.2.2.3 Prevention and control measures during operation

(1) Ground personnel working in the entry area shall not be mixed with those who supported domestic flights, with their moving lines not being overlapped. The ground personnel shall avoid unnecessary direct contacts among themselves.

(2) When safety can be ensured, it is suggested that ground staff working in the designated area should maintain an appropriate distance and single-person operation is encouraged. Cargo handling personnel shall avoid frequent contact with the cargo surface during operation. Ground staff such as loading and unloading, transshipment, sorting, and handling personnel shall be divided into cold-chain cargo handlers and regular cargo handlers according to the risk levels of cargo flights and the types of cargo. These two types of cargo handlers shall be fixed to their posts and avoid mixture.

(3) Ground personnel working in the entry area shall not use the same public facilities and transportation vehicles with those used by passengers and other personnel. Prepackaged foods shall be selected as priority for working meal. The personnel shall be arranged to dine in different time, with a transparent partition as protective means if dine together. When taking ferry bus at the airport, ground personnel shall clean and disinfect their hands and not be allowed to sit in right front seat.

(4) Special measures shall be carried out in the entry area, including designating

special personnel, working area and rest area, special operating equipment and airport transportation facilities to avoid mixture. The airport shall provide special working and rest areas for high-risk personnel who worked in the entry area. Personnel who conducted different types of work shall not have rest in the same area at the same time. Disinfection of environmental surfaces of rest area where these personnel stayed shall be performed in time.

(5) When leaving their working areas, ground personnel shall clean and disinfect their hands first, and then change protection equipment in order. Relevant operation entities shall send special personnel to inspect the wearing/removing of protective equipment for personnel working in high-risk posts.

(6) The relevant operation entities shall designate dedicated areas for ground personnel working in the entry area to wear/remove protective clothing. This special area shall be deemed respectively as clean area, buffer zone and contaminated area. Different areas shall be marked to ensure physical separation and shall avoid crossover. For ground personnel who worked in the designated entry area, they shall wear protective clothing in the clean area before operation, and take off protective clothing in the buffer zone after operation. Environmental disinfection shall be carried out for buffer zone every day and the frequency shall be at least once every 4 hours during the operation. The removed protective equipment shall be cleaned and transported as hazardous garbage for centralized disposal.

(7) Personnel health monitoring

Ground personnel working in the entry area shall pay close attention to their health status, voluntarily report their temperature and abnormal conditions (fever, dry cough, fatigue, sore throat, olfactory (taste) loss, diarrhea, etc.), and shall be immediately transferred to designated healthcare facilities in a closed loop if any suspicious symptom occurred. Personnel working in high-risk posts shall carry out health monitoring once a day in the morning and the afternoon respectively, while those in medium and low-risk posts once a day and voluntarily report the information of their whereabouts. Relevant operation entities shall designate special personnel to record health status of ground personnel on a daily basis.

(8) Nucleic acid test

During operation, personnel working in high-risk posts shall accept nucleic acid test every other day. The sample of nasal swab (replacing 1 throat swab) shall be collected once a week. The nucleic acid test shall be arranged in turn according to the situation, and it shall be ensured as far as possible that every high-risk post has personnel to be tested every day.

Personnel working in medium and low-risk posts shall accept 2 nucleic acid tests every week, with an interval of no less than 2 days.

If relevant local departments where the airport located have other requirements, nucleic acid test shall be carried out in accordance with relevant provisions.

7.2.3 Prevention and control measures during non-operation period

7.2.3.1 Personnel worked in high-risk posts shall adopt a work shift system with a specific time period. During shift break, home health monitoring shall be carried out in the first 7 days. During work, centralized residence, closed management, point-to-point transfer between working place and residence, strict closed-loop management and designated commuter vehicles shall be ensured. The personnel shall not contact with family members and persons in the community during work.

7.2.3.2 The personnel worked in low and medium-risk posts shall reduce outings as far as possible except for work, not leave their residences (prefecture-level city/district), and not enter crowded public places or participate in gathering activities (≥5 persons).

7.2.4 Process for leaving current posts

7.2.4.1 The personnel worked in high-risk posts shall conduct a nucleic acid test before leaving current posts, carry out home health monitoring during the first 7 days, and accept additional 2 nucleic acid tests on the 2nd and 7th day.

7.2.4.2 After leaving their posts, the personnel worked low and medium-risk posts shall conduct health monitoring, pay close attention to their health status, and voluntarily report their temperature and abnormal conditions (fever, dry cough, fatigue, sore throat, olfactory (taste) loss, diarrhea, etc.). During health monitoring period, these personnel shall reduce unnecessary outings as far as possible, and not enter crowded public places or participate in gathering activities (≥5 persons). If engaged in support to domestic flights, the personnel shall have a negative result of nucleic acid test.

7.3 Disinfection measures for the environment and the facilities and equipment in the entry area

7.3.1 After each inbound flight operation, preventive disinfection shall be carried out for the vehicles, and facilities and equipment contacted by passengers, and the surfaces of objects with high-frequency contacts (such as elevator buttons and trolleys) in the entry area. Disinfection of cargo facilities and its environment shall be carried out in accordance with "6.4 Disinfection of Airport Cargo Facilities and

Environment".

7.3.2 For facilities and equipment used by and relevant areas (such as personnel rest area, dining area and concentrated residences) contacted with the personnel working in the entry area, preventive disinfection shall be carried out on a daily basis. Please refer to Attachment 2 for specific disinfection frequency.

7.3.3 When suspect cases, confirmed cases, asymptomatic infected persons or infectious body fluids such as vomit and blood were found, terminal disinfection of relevant environment shall be carried out by dedicated personnel in a timely manner.

8. Measures for Preventing Heat Stroke of Ground Personnel in Summer

8.1 Ground personnel with diseases that were unsuitable for operation in high temperature conditions (such as hyperthyroidism and active digestive tract ulcers) shall be removed from those posts timely.

8.2 Operation in high temperature conditions can lead to possible loss of salinity and minerals of human body. During their operation, ground personnel shall drink 2 to 4 cups of beverages (500-1000ml) (the salinity is 0.1% to 0.3%) every hour, with a small amount and for multiple times. At the same time, they shall not drink chilled beverages as far as possible to avoid stomach spasm.

8.3 Rest area, where the supplies for preventing heat stroke and first aid are available, shall be set up in apron area.

8.4 The duration time for each continuous individual operation shall be shortened. After completing continuous operation in high temperature conditions, ground personnel shall at least take a 15-minute rest and avoid staying in high temperature environment. When the temperature exceeds 37℃, the operation in the apron and cargo handling areas from 11:00 a.m. to 3 p.m. shall be minimized. Appliances for labor protection such as cooling vest and summer protective clothing shall be provided for ground personnel where possible according to working environment and weather conditions.

8.5 The patrols by airport first aid personnel and other personnel on duty shall be intensified.

9. Mental Health Management for Front-line Personnel of Airports

Continued effort shall be made to provide humanistic care and psychological counseling for front-line employees since they are faced with the risk of infection in their daily supporting work. Effective mental health services shall be provided to calm

down negative emotions in time. Please refer to section "11 Aviation Staff Mental Health Management" of the *Preventing the Spread of Coronavirus Disease 2019 (COVID-19) Guideline for Airlines.*

10. Proper Use of Personal Protective Equipment

In order to provide guidance to front-line staff in civil aviation on how to correctly wear masks, hats, gloves, goggles and other protective equipment, and properly sanitize hands, and to enable those staff learn relevant knowledge and skills about the COVID-19 prevention and control, our Office made a video, downloadable from the CAAC website or the System for Civil Aviation Personnel Physical Examination Certificate Management (https://ams.caac.gov.cn).

Attachment 1

Protection and Control Recommendations on Airport Indoor Spaces with Various Crowd Densities

Crowd Density (person/100m^2)	Disinfection Frequency of Frequently Touched Surfaces(times/H)	Ventilation Measures
≤50	1 time/4H	Maintain good ventilation
50-100	1 time /3H	Increase ventilation efficiency
100-150	1 time /2H	Further increase the ventilation efficiency
≥150	1 time /H	Maximum ventilation efficiency

Attachment 2

Prevention and Control Requirements of Entry Area Related Vehicles, Production Equipment and Airport Stations

Items		Requirements	Notes
High risk vehicles	Disinfection frequency of vehicle cockpit	Vehicle cockpit shall be disinfected every time when the driver enters and exits	Vehicles shall be equipped with disinfection wipes and other protective equipment
	Disinfection frequency of vehicle compartment	Once every trip	Disinfect before loading of goods
	Frequency of vehicle exterior disinfection	Once every trip	-
Storage places, operating equipment, public areas	Disinfection frequency of PMC pallet, box, net cover, strap, container, and other parts	Once every day	-
	Disinfection frequency of loading and unloading machinery	Once every entry or exit	-
	Disinfection frequency of storage place	Once every eight hours	-
	Disinfection frequency of dining area	Once every day	May be equipped with quick-drying hand disinfectant if conditions permit
	Disinfection frequency of resting areas	Once every four hours	-
	Disinfection frequency of restroom	Once every four hours	Be furnished with 84 disinfectant liquid and hand sanitizer
	Ventilation in offices, dining areas, and restrooms	Continuous ventilation	-
	Observation areas set-up	Observation areas shall be set up at body temperature measurement points	-
	Registration of vehicles and personnel entering and exiting the airports and stations	100% real-name registration	-
	Health knowledge publicity	Be carried out	Through broadcasting, screens, posters, etc.

Attachment 3

Personal Protection Recommendations for Various Types of Persons Working at Airports

Personnel Category	Surgical Mask	Medical Mask	Goggle/ Face Screen	Disposable Protective Suit	Disposable Medical Rubber/Nitrile Gloves	Disposable Shoe Covers	Disposable Medical Cap
Check-in personnel	√				√		
Ground cleaning personnel	√		○	○	√	○	○
Security inspection personnel	√		√		√		√
Health care workers at airports		√	√		√		√
Emergency handling personnel		√	√	√	√	√	√

Note:

1. Goggles and face screens are generally not used at the same time. Face screens shall be the first choice if there is a risk of being exposed to a large amount of splash.
2. ○ in the table is optional, it can be selected if necessary according to actual exposure risks and conditions, and √ means the choice is mandatory.
3. Protection of other personal can refer to Attachment 4 of *Preventing the Spread of Coronavirus Disease 2019 (COVID-19) Guideline for Airlines* Eighth Edition.

Appendix 1

Operating Specifications for Disinfection of Airport and Surfaces of Public Facilities

1. Preventative Disinfection

1.1 Air disinfection: use natural ventilation where climatic conditions allow, and chemical disinfection is not recommended. Air conditioning ventilation system shall be cleaned and disinfected on a regular basis. 250mg/L to 500mg/L chlorine-based disinfectant or 250mg/L chlorine dioxide could be sprayed or wiped for reaction of 10 to 30 minutes.

1.2 Disinfection of facility surface: crowded places and frequently-touch surfaces (such as self-check-in or check-in counters, document verification counters, buttons in elevators, and handrails) shall be the focuses. 250mg/L to 500mg/L chlorine-based disinfectant or 250mg/L chlorine dioxide spray or wiping could be used, and water shall be applied for wiping and cleaning after 30 minutes of reaction.

1.3 In a bid to prevent secondary hazards, it is not recommended to disinfect areas such as the ground and security inspection queuing barriers unless there are suspicious pollutants. Ultraviolet rays can be used in some places instead of disinfectant for environment and facility surface sterilization when conditions allow.

2 Terminal Disinfection

The procedures of terminal disinfection shall follow the Appendix A of the *General Principle on Disinfection for Infectious Focus* (GB19193-2015). On-site disinfection personnel shall ensure their personal protection when preparing and using chemical disinfectants. It is recommended to choose one of the following methods:

2.1 Hydrogen peroxide vapor (gas) sterilization devices can be used for integrated disinfection of the air, the environment and surface of objects. The specific operation can be performed according to the equipment instruction manual.

2.2 0.5% peroxyacetic acid, 3% hydrogen peroxide, or 500mg/L chlorine dioxide can be adopted for air disinfection, by way of aerosol spray, with 10-20ml/m^3. Windows shall be closed before disinfection, and the surfaces and the space shall be evenly sprayed, starting from up-down, and then from left to right. Windows can be opened for ventilation after 60 minutes of reaction. After spray disinfection, the surfaces of objects may be wiped (swept) in the way of daily disinfection.

2.3 For key passenger areas, 500mg/L to 1000mg/L chlorine-based disinfectant can be applied by spraying or wiping for reaction of more than 30 minutes. If there are contaminated body fluids such as vomit and blood, 10000mg/L chlorine-based disinfectant shall be applied for over 30 minutes before removing the contaminated body fluids, and then the area shall be cleaned and disinfected.