



Quick reference for ground handling during COVID-19

This document provides a quick reference to the various governmental and industry guidelines and updates on COVID-19 outbreak as well as provide some additional information specifically related to the ground handling industry.

This bulletin and its future updates will be posted on www.iata.org/ground-operations

General Information on COVID 19

IATA has centralized recent COVID-19 updates and emergency guidelines and other material from relevant bodies as well as country specific guidelines. It has been developed in cooperation with the IATA Medical Advisory Group (MAG) and will be updated as more information becomes available.

WHO, ICAO, IATA and ACI have worked in close cooperation on the development of aviation-specific guidelines with the objective of ensuring appropriate planning and action at all levels in order to mitigate the effects of a human outbreak.

World Health Organization (WHO)

- [Coronavirus Disease \(COVID-19\) Outbreak](#)
- [Operational Considerations for Managing COVID-19 Cases/ Outbreak in Aviation \(March 18th\)](#)
- [Handbook for the Management of Public Health Events in Air Transport](#)
- [Coronavirus Disease \(COVID-19\) Technical Guidance: Points of Entry and Mass Gatherings](#)
- [Q&A on Coronaviruses \(COVID-19\)](#)

International Civil Aviation Organization (ICAO)

- [Aviation and COVID-19](#)

International Air Transport Association (IATA)

- [Air Transport & COVID-19 Coronavirus](#)
- [Government Measures Related to Coronavirus \(COVID-19\)](#)

Airports Council International (ACI)

- [Information on the COVID-19 Pandemic](#)



Ground Handling in Case of COVID-19

COVID-19 spreads by respiratory droplets. These are breathed out particularly when the sick person coughs, sneezes or talks, and then they are either breathed in directly by someone else, or travel via the hands of the sick person to the hands of the well person, who then touches their face and breathes in the particles. Less efficiently, the virus may be passed from hands to hands via recently touched surfaces. Most of the spread has been from close contact with someone unwell at the time. Close contact is typically defined as being within 1-2 meters for 15 minutes. More information about the Corona Virus Disease – COVID-19 can be found [here](#).

Based on the [Environmental Cleaning and Disinfection Recommendations from US CDC](#), "Transmission of novel coronavirus to persons from surfaces contaminated with the virus has not been documented. Transmission of coronavirus in general occurs much more commonly through respiratory droplets than through fomites."

This implies that the principles of most operational procedures are un-changed, while cleaning, good hygiene measures and consistent use of appropriate personal protective equipment (PPE) is recommended. WHO and local regulations are to be reinforced during this time of handling with an outbreak of COVID-19.

Based on recommendations from the [OSHA regarding COVID-19](#). For all workers, regardless of specific exposure risks, it is always a good practice to:

- Frequently wash your hands with soap and water for at least 20 seconds
- If soap and running water are unavailable, use an alcohol-based hand rub with at least 60% alcohol.
- Always wash hands that are visibly soiled
- Avoid touching your eyes, nose, or mouth with unwashed hands
- Avoid close contact with people who are sick

Ground Handling Recommendations

In this part, the ground handling process is split into key operational areas. Each area includes references specific to each ground operation area (if available) and Q&A for questions arising from our stakeholders.

Passenger Check-in, Transfer, and Gate Handling

Report passengers with:

Specific symptoms of fever (person feels warm to the touch, gives a history of feeling feverish, or has an actual measured temperature of 100.4°F [38° C] or higher) that has persisted for more than 48 hours.

Or fever and one of the following:

- Persistent cough
- Difficulty breathing
- Appears obviously unwell

Document Sources

- No specifics available



Q/A

- 1) Are there special guidelines if the passenger suspected is a passenger with reduced mobility or a medical case with prior doctor clearance?

Answer: In this case contact the ground-based medical advice service which is contracted to the airline.

Baggage and Cargo Handling

Handling Cargo from Affected Countries

The rationalized use and distribution of PPE when handling cargo from and to countries affected by the COVID-19 outbreak includes following these recommendations:

- Wearing a mask of any type is not recommended when handling cargo from an affected country.
- Gloves are not required unless they are used for protection against mechanical hazards, such as when manipulating rough surfaces.
- Importantly, the use of gloves does not replace the need for appropriate hand hygiene, which should be performed frequently, as described above.
- When disinfecting supplies or pallets, no additional PPE is required beyond what is routinely recommended.

To date, there is no epidemiological information to suggest that contact with goods or products shipped from countries affected by the COVID-19 outbreak have been the source of COVID-19 disease in humans. WHO will continue to closely monitor the evolution of the COVID-19 outbreak and will update recommendations as needed.

Document Sources

- [IATA Suspected Communicable Disease Guidelines for Cargo and Baggage Handlers](#)

Q/A

- 1) If the cargo and baggage handlers use "re-usable" gloves while handling cargo and baggage, does the issue of washing hands still apply and how should they handle their gloves which are part of their PPE? Can COVID 19 virus be found on bags, cargo?

Answer: This situation is not PPE for biological protection, because we assess that this is not required. Therefore, as per the OSHA advice, normal procedures apply.

- 2) Is there a possibility of leakage for COVID-19 as UN 3373, Biological substance, Category B and packed in accordance with PI 650 what would be the consequences?

Answer: The UN3373 Cat B substances similarly are handled normally because they pose no risk when packaged as required.



Ramp Handling

Document Sources

- [IATA Emergency Response Plan](#)

Q/A

- 1) How should ramp handling personnel carry out operations when there is suspected communicable disease.
- 2) Is it necessary for Ground Support Equipment, GSE to be regularly cleaned or sanitized? If yes, how often?
- 3) Does the process change for cleaning of catering trucks, PRM vehicles, passenger buses & crew transport and passenger boarding bridges?
- 4) Should we sanitize passenger/crew/buses? If so, how often? And using what procedure? Do the ramp procedures for handling toilet and potable water change if the arriving aircraft is carrying suspected cases?
- 5) What about uplifting of water from areas where the virus is detected?
- 6) Any additional PPE required?

Answer for Questions 1-6: Handling of GSE equipment should be done as normal. This is not considered to be a route of transmission of this disease. Similarly, the handling of water and toilet waste does not change. Sanitising and cleaning of passenger and crew buses should be done regularly using standard disinfectant agents such as 60% alcohol, hypochlorite or peroxide, and done on all high touch areas likely to be contacted by a person potentially unwell.

- 7) Are there any safety precautions we should observe at this time when most aircraft are on ground?
- 8) Should the aircraft be parked at a normal bay or a remote bay?

Answer for Questions 7-8: Depending on each airport emergency plan, the airport may require the aircraft to proceed to a designated bay, possibly a remote bay, according to its plans and requirements. The sequence of disembarkation will depend on the location of the passenger relative to the doors and should be designed to minimize contact between that person and other passengers.

NOTE:

When an aircraft arrives with a possible COVID-19 passenger or with an affected passenger and Ramp Buses are required, assess the situation before-hand:

- *Provide and identify a limited number of buses for that service*
- *Use the same buses for the whole disembarkation service and disinfect once the process is finalized*
- *Limit the number of passengers in the bus*

Define a communication protocol between the ground personnel and cockpit crew to avoid direct contact e.g., the Ramp Agent communicates with Cockpit through headsets to advise:

- *The stair/s at door have been securely placed*
- *The Ramp Agent will confirm the stair is secured and safe for disembarkation*
- *They will agree on number of passengers to disembark at the given time*



- *A hand signal shall be provided by both the cabin crew and ground crew once the agreed limits are reached to maintain the "social distancing":*
- *Once the process is agreed the buses and boarding devices shall be disinfected prior use for the next process*

This shall ensure:

- *The risk of infection is avoided between the ground personnel on the one hand and the passengers and crew from a flight with an infected person on the other hand*
 - *Disinfection is done thoroughly*
- 9) Are there any safety precautions we should observe at this time when most aircraft are on ground?

Answer: Ensure to check on:

- *Spacing and distance between adjacent aircraft*
- *Park into the prevalent wind direction*
- *Consider periodic engine runs for engine preservation*
- *Available anchor points for high wind conditions*
- *Grounding paths*
- *Monitor snow accumulation*

Aircraft Cleaning

Document Sources

- [CDC Updated Interim Guidance for Airlines and Airline Crew: Coronavirus Disease 2019 \(COVID-19\)](#)
- [IATA Suspected Communicable Disease Guidelines for Cleaning Crew](#)
- [EASA Interim guidance on Aircraft Cleaning and Disinfection in relation to the SARS-CoV-2 pandemics](#)

Catering Handling

Document Sources

- No specifics available

Q/A

- 1) How should the loading and offloading of catering trolleys be handled?
- 2) Dealing with catering equipment used during flight. What is the process for cleaning / disposal of cutlery / crockery / glassware as well as the; cleaning of catering carts in case of suspected communicable disease?
- 3) What are the precautions that catering staff should take to avoid contamination during catering handover to cabin crew?
- 4) Are there any special procedures that should be adhered to in when securing or sealing catering trolleys?
- 5) Is it necessary to strictly use only disposable utensils for cutlery and dinnerware?
- 6) Any additional PPE for catering staff?



Answer: No change is advised to these procedures. The route of spread of this virus is through close contact with people who are unwell, either direct droplet inhalation. The spread via surfaces with delayed contact is theoretical but has not been a driver of this outbreak. Simple handwashing techniques and avoidance of touching the face, as all the public are being advised, are the key to prevention.

GSE Long Term Storage Procedures

Preparation

General Principles

- Simply parking GSE for a long time without taking certain basic steps can lead to potential problems and down-stream costs when it is needed again
- The primary aim of the preparations is to preserve the active GSE fleet in a safe and fully functional condition
- The first point of reference for correct storage procedures should be the equipment manufacturers' (OEM) guidelines. Most GSE OEM manuals have a section describing long term storage procedures that users can reference. These supersede any content of this document.
- Local regulations and procedures also have precedence over this document.

Preparation Guidelines

- Park GSE in a centrally controlled area and under cover wherever possible
- Ensure all doors and windows are closed and secured
- Ensure exposed operational panels are covered to protect them from various climatic conditions such as rain, sun and dust
- Depending on climate, vents can be open to allow air to circulate but this should be weighed against the possibility of mold, fungus, infestations such as vermin / insects / birds, as well as ingress of sand, dust, snow, water
- Secure all accessories and hoses, cables, covers etc.
- Inflate all tires to the maximum recommended pressure – unless the unit is to be stored on blocks with wheels off the ground
- Ensure all fluids are at the correct level
- Ensure all ignition / power systems are off or isolated
- Protect against unauthorized usage by removing keys (if keyed ignition) or by appropriate kits to lock out / tag out
- Where possible, chock the vehicle to prevent it rolling away. A parking brake can seize in the ON position if set. Decision to set the parking brake or not to be guided by manufacturer documentation, experience with the specific piece of equipment nature of the parking area in terms of slope etc.
- Retract all stabilizers
- If possible, coat exposed hydraulic rams with a preserving fluid or grease
- Drain air brake tanks of all water residue
- Disconnect telematics if the GSE main batteries are not disconnected to avoid draining the battery when in storage
- For potable water tanks – Refer to WHO guidance and IATA IDQP policy
- For lavatory unit tanks – these should be emptied, cleaned and left to air dry with hatch left partially open but covered to prevent ingress of any foreign objects
- For fuel truck tanks – Refer to local safety regulations. Could depend on type of fuel stored. If tanks are emptied, they should also be degassed to remove any flammable gasses



- De-icing anti icing equipment – These are typically stored for the warm season(s) – unless otherwise directed, follow the OEM guidance for the normal storage season
- For towbars, grease where appropriate (especially for moving mechanisms such as towbar head-locks pins, etc) and cover properly to avoid any corrosion.

For Equipment with Internal Combustion Engines:

- It is recommended to keep fuel tanks filled as this prevents condensation and micro-bacterial growth. However, this must be a local decision based on local regulations, climatic conditions and cost.
- Disconnect the battery – after checking the manual for any specific precautions
- Ensure DEF fluid does not freeze during prolonged periods of inactivity during cold weather
- Check OEM manual for any specific measures to take regarding emissions equipment.

For Electrically Powered GSE

- Batteries need to be kept in dry, cool, frost free conditions – extremes of heat and cold are not good for batteries
- Where possible / available, follow the guidance of the battery manufacturer regarding storage
- Lithium battery powered units should be kept with a reasonable charge
- Where possible leave plugged in
- Where not possible, turn off the master disconnect on the equipment
- If the lithium battery is provided with a power switch, that should be switched to OFF the position to prevent discharge from the battery's electronics
- For lead acid battery powered units:
 - Disconnect from the charger system unless otherwise advised.
 - Turn off the master disconnect on the equipment.
 - Chargers shouldn't need any attention but if not in use, should be shut off at main disconnect.

During Storage

General

- Rotate the fleet wherever possible. Swap a parked serviceable GSE with another serviceable one in operation. Do this in an organized way according to a plan. This way you can distribute the utilisation evenly within your fleet.
- Fix units when they breakdown whenever possible. Try to avoid swapping a defective unit with a parked but serviceable one as this leads to situations where you may end up with all unserviceable units and it becomes difficult to identify which unit had what issue.
- Avoid cannibalisation of parts, as much as possible. Only swap spare parts from another GSE if the equipment is absolutely critical for operation and the spare part is not in your stock (or the lead time is unknown). Cannibalising leads to uncontrolled repair activity and duplication of effort/labour.
- If possible, under the local circumstances consider using this time to catch up on maintenance and repairs.
- If possible, check all stored units weekly for overall state of readiness
 - Monitor for leaks, flat tires, nesting birds, mice, rats and other infestations such as ants, bees, wasps etc.
 - Check for water infiltration in cabs / compartments after rain and prevent any development of mold, fungus etc.
 - Check all drain holes are clear to prevent build-up of pools of water and accumulation of rotting vegetation leading to rust and mold
- Start equipment periodically (once a week if possible), and, taking precautions, move it around to prevent flat spots developing on tyres, (this also applies for vehicles with solid tyres). Use the hydraulic and brake systems to circulate fluids and keep seals flexible.



For Lithium Batteries

- Depending on the condition of the batteries and the initial charge level, these batteries could be good for up to 6 months with no charging, after that they should be checked for charge levels.

For Lead-Acid Batteries

- Check water levels and freshen charge the batteries at least every 3 months but more frequently if possible
- Check lead-acid batteries for build-up of corrosive powders at terminals and around the battery cells. Clean as necessary.

Fleet Management Systems and Data

- In terms of PMI (preventive maintenance and inspection) consider revising the maintenance schedule when GSE is placed in storage to account for it being out of use. Calendar regulated services (e.g. monthly checks become irrelevant if units are not used for several months) could be stopped or moved over to time (typically hours) in use measures if the units are to be "exercised" regularly. For example, if a unit is stored today and is due a PMI in 6 weeks' time, then the PMI is either done upon reactivation or 6 weeks after reactivation or after a certain number of hours equivalent to 6 weeks of use has passed. This should be a local maintenance manager decision, in collaboration with regional fleet managers, based upon several factors including whether the unit has been started and exercised during the storage period, the number of available maintenance staff, climatic conditions and cost implications.
- Ideally a record should be kept of all that was done to each unit when it was put into storage. Record should also be kept of each time the unit is exercised or rotated with another unit.

Getting Back Up and Running

- Walk around the equipment, check for nests, blocked intake and exhaust pipes, flat tires, chewed wires, hoses, fuel lines, evidence of leaks and any other obvious signs that the equipment is not ready for use.
- Ensure battery terminals are correctly connected in terms of polarity
- Check the OEM manual before "jump starting" or boosting the battery from an outside power source to avoid possible costly damage to electronic systems due to voltage spikes / surges.
- Before starting / moving the equipment, check tire pressures, and all fluid levels
- If the engine, transmission and / or hydraulic systems were treated for long term storage, follow the reinstatement to service procedures specified by the preservative protocol.
- Clean off any sliding surfaces such as rams etc. that have been coated with preservatives.
- Check OEM manuals regarding towing procedures prior to towing any disabled GSE – some modern transmissions / drivetrains do not allow for towing or can only be towed within very limited speed / distance parameters – the consequences of not following the OEM precautions are expensive transmission / drivetrain failures.
- As a minimum, perform a full safety and functional check list prior to moving the equipment to ensure it is safe to use
- Once started, allow the brake system to build up to operating pressure (air brakes), move off very slowly and apply brakes within a meter or so to ensure brakes are working
- During a short drive, check for unusual noises, unusual smells (e.g. burning), pulling to one side during pull off, driving, braking, erratic power delivery amongst others. Stop and check for any leaks.
- For GSE fitted with any proximity sensing and warning systems, check that these are operating correctly before servicing an aircraft.



Inquiries and Feedback

This document intendeds will be updated regularly as we receive input and updates from our stakeholders. Please send any further questions, recommendations or inquiries to groundops@iata.org

