

Government of Punjab
Department of Health & Family Welfare
(NHM, Punjab)

No. MD/NHM/2020/3290(R)-3295(R)

Dated, Chandigarh the 6th May, 2020

To

1. Principal Secretary, Transport, Punjab.
2. All Divisional Commissioners, Punjab
3. State Transport Commissioner, Punjab.
4. Director, State Transport, Punjab.
5. Managing Director, PRTC.
6. All Deputy Commissioners, Punjab.

Subject: Advisory on maintaining the hygiene and sanitization by State Transport Undertakings (Punjab Roadways/PRTC/PUNBUS) and Private Bus operators during the transport of Migrants/passengers in the wake of COVID-19 pandemic.

The Department of Home Affairs & Justice, Government of Punjab, vide its letter no SS/ACSH/2020/355 dated 4.5.2020 has prohibited the inter-district and intra-district plying of buses. The Department is advised to ensure the approval of Department of Home Affairs & Justice, GoP before allowing its and private operators fleet to ply for any purpose. The advisory for plying the buses, once permitted by the GoP, has been prepared on the request of the department and is as below:

Coronavirus Disease 2019 (COVID-19) is a systemic disease caused by a novel Corona virus (SARS-CoV-2), transmitted in most instances through respiratory droplets, direct contact with cases and also through contaminated surfaces/objects. Though the virus survives on environmental surfaces for a varied period of time, it gets easily inactivated by chemical disinfectants. Thus, correct and timely information and knowledge about the corona virus is the key to control the pandemic.

The Government of Punjab has imposed severe restrictions on free movement of people and vehicles in the larger public interest of controlling the spread/transmission of Corona virus through the imposition of Curfew in its all 22 districts.

The Ministry of Home Affairs, Government of India, vide its letter no 40-3/2020-DM-1(A) dated 29.4.2020 read with DO 40-10/2020-DM-I(A) dated 3.5.2020 has allowed the movement of migrant workers, pilgrims, tourists, students and such other persons who had moved from their native places before the lockdown period but could not return back to their native places/workplaces and are stranded due to lockdown. It is essential that such migrant workers, pilgrims, tourists, students and other persons as well as the bus drivers/conductors and other Staff deployed on duty for their transportation to local railway stations as well as to their native places (if so permitted) meticulously comply with the following guidelines to minimise the risk of spread of COVID-19.

I. General Advisory

1. Only the buses essential for the transport of migrant workers, pilgrims, tourists, students and other persons who had moved from their native places before the lockdown period but could not return back to their native places/workplaces and are stranded due to lockdown shall ply only to the extent allowed by the Government, i.e, till local railway stations or other state-districts.
2. The transport authority is advised to make a comprehensive plan in a manner that only the staff/manpower essential for transportation of migrants defined above is called for duty. Further, the Staff/manpower, who is actually transporting the migrants to the allotted destination, shall be mandatorily examined medically both before and after the journey.
3. The transport authority, in association with the local health authorities, shall carry out an awareness campaign of its Staff/manpower with regard to the symptoms of COVID-19 with an objective to assist them in self monitoring as well as to identify and report if any passenger develops/reports any symptoms
4. Not more than 50% of the seating capacity of the bus shall be allowed to be filled at any time during the journey and a minimum distance of 1 meter be ensured amongst the passengers during boarding, sitting for journey and deboarding the bus. The same can be ensured by advising the passengers to sit on the alternate side- Window/middle/Aisle on each seat.

5. The transport authority, in active consultation with the District administration, shall decide on the pick-up/start point, destination, routes, timing, frequency of the buses on the basis of the number of migrants residing in the district who have expressed the willingness to return (on www.covidhelp.punjab.gov.in), seating capacity norms laid above, distance etc. The halting point, if any, during the journey shall also be clearly laid out.
6. The travelling migrant shall be clearly informed about the start-point, reporting time to board the bus and the fare, if any, through SMS, preferably a day before the journey.
7. Installation of thermal scanners at the entry gate of the bus-stand/ bus is mandatory to screen the staff/passengers suffering from high fever. The normal human body temperature is 97.7 to 99.5 degree Fahrenheit or 36.5 to 37.5-degree centigrade.
8. The transport authority is advised to install the foot-operated Hand-washing Stations at the bus stands/service stations/workshops etc. To ensure that a minimum distance of 1 meter is maintained by the staff/ passengers etc. while washing the hands/waiting for their turns, circles/squares shall be marked at a distance of 1 meter from each other.
9. Markings at all crowded areas like Entry Gate, Water Coolers, and Canteens/shops (if operational) etc. should be done to facilitate social distancing. Water tanks/coolers should be cleaned and maintained regularly.
10. Temporary counters/Circles/Squares with a proper safe distance marking of at least 1 meter should be made at the boarding point of buses for regulating the social distancing amongst the passengers.
11. A separate queue for Senior Citizens/elderlies above 60 years, in view of their enhanced susceptibility to the disease, for the purpose of purchase of ticket and boarding the bus should be defined.
12. The transport authority should encourage ticketing of the passengers before they board the bus. The ticketing employee/conductor should wash the hands after the ticketing with soap and water and before boarding the bus.
13. Encourage digital payment, wherever feasible.
14. The transport authority should encourage its staff/manpower to download “COVA APP” developed by the Government of Punjab for the correct, timely and authentic information.

15. Disinfection of the Office/Bus-Stand/Bus:

- a. **Indoor Areas:** Indoor areas including office spaces, ticket booths, waiting areas etc. should be cleaned every evening after office hours or early in the morning. If the contact surface is visibly dirty, it should be cleaned with soap and water prior to disinfection. Prior to cleaning, the cleaner should wear disposable rubber boots, gloves (heavy duty), and a cloth mask.
- Start cleaning from cleaner areas and proceed towards dirtier areas.
 - All indoor areas such as entrance lobbies, corridors and staircases, security guard booths, office rooms, cafeteria should be mopped with a disinfectant with 1% sodium hypochlorite or equivalent disinfectants commercially available in the market.
 - High contact surfaces such as handrails / handles and call buttons, public counters, intercom systems, equipment like telephone, printers/scanners, and other office machines should be cleaned twice daily by mopping with a linen/absorbable cloth soaked in 1% sodium hypochlorite. Frequently touched areas like table tops, chair handles, pens, diary files, keyboards, mouse, mouse pad, tea/coffee dispensing machines etc. should specially be cleaned.
 - For metallic surfaces like door handles, security locks, keys etc. 70% alcohol can be used to wipe down surfaces where the use of bleach is not suitable.
 - In a office room, if someone is coughing, without following respiratory etiquettes or mask, the areas around his/her seat should be vacated and cleaned with 1% sodium hypochlorite.
 - Carefully clean the equipment used in cleaning at the end of the cleaning process.
 - Protective gear used during sanitation process should be discarded as per the requirements.
 - In addition, all employees at the ticket booths/office should consider cleaning the work area in front of them with a disinfecting wipe prior to use and sit one seat further away from others and if possible 2 seats.

b. **Buses:**

- The buses should be thoroughly disinfected using 1% sodium hypochlorite solution at the time of entering the depot. The cushion time of 1-1.5 hours for the purpose of disinfection and staggered boarding should be kept in mind before starting any journey.
- All the high-contact surfaces such as rails, pillars, seats, arm rests, hand holds & glasses etc. should be wiped with 70% alcohol based disinfectant before starting any route.
- Outer surfaces of the bus can be sprayed directly with 1% sodium hypochlorite solution using high pressure motor pump spray units.
- The sanitizing team should wear appropriate protective gear (masks, rubber gloves, rubber boots, goggles etc.) before starting the disinfection.
- A plastic/mirror based partition between the driver seat and the passengers may be considered.

c. **Outdoor areas:** Outdoor Areas have less risk than indoor areas due to air currents and exposure to sunlight. These include bus stops, parking areas, sitting benches, waiting areas etc. Cleaning and disinfection efforts should be targeted to frequently touched/contaminated surfaces as already detailed above.

d. **Office/Public toilets:** Sanitary workers must use separate set of cleaning equipment for toilets (mops, nylon scrubber) and separate set for sink and commode. They should always wear disposable protective gloves while cleaning a toilet. All the areas of the toilet such as the sinks, commode, taps etc. should be thoroughly cleaned/scrubbed using soap and water and then wiped with 1% sodium hypochlorite solution or equivalent commercial disinfectants available in the market.

II. **Advisory for the Staff/Manpower:**

1. The staff should be advised to follow strict social distancing measures and maintain a minimum distance of 1 metre amongst themselves and with passengers at all times.

2. The staff/manpower shall be advised not to indulge in any handshakes or hugs to greet/see-off each other.
3. The staff/manpower shall also be advised not to roam unnecessarily in the depot space/corridors/bus bays etc.
4. The depot staff/drivers/conductors etc. should always wear a cloth mask at all times immediately from leaving the house, during the journey and till they enter back into their house.
5. The mask shall be worn in a manner that it snugly covers the nose as well as the mouth.
6. The cloth mask should be washed with soap and water daily after use.
7. Wash the hands with soap for at least 40 seconds by applying the soap gently on the palm and back of the hand including web spaces between the fingers and space between the finger and the thumb and the wrist wherever and whenever the opportunity to wash the hands is available. However, the hands shall mandatorily be washed by driver/conductor before the start of journey and after reaching destination (on both forward and return journey).
8. Alcohol-based sanitizer (minimum 70% ethyl alcohol v/v) should be mounted or kept inside the bus for frequent sanitization of the hands. The sanitizers are to be refilled/replaced frequently. Use a minimum of 3 ml of the sanitizer (approximately 2 pushes of sanitizer dispenser) on DRY HANDS for at least 30 seconds for good hygienic hand disinfection.
9. Sanitize the hands even if they appear to be apparently clean.
10. The driver and the conductor should either sanitise or wash their hands whatever is feasible and available frequently.
11. The driver and the conductor should mandatorily hand wash/sanitize in the manner prescribed before touching the refreshments during tea-break/lunch-break etc.
12. The driver and the conductor should avoid any physical contact with the passengers or any other staff.
13. The driver/conductor should avoid roaming during halt/waiting times (eg. Boarding/Deboarding) as also touching the surfaces, equipments etc.
14. Take proper diet and sleep.
15. The driver/conductor should avoid eating inside the vehicle.

16. The utensils to be used for eating should be properly cleaned with dish wash bars /liquids and water.
17. The utensils should not be shared with anyone.
18. The driver/conductor should not spit inside the bus or anywhere in the open.
19. The driver/conductor should not smoke or chew tobacco-based products such as gutka, pan masala etc. in the vehicle or during other times. They should avoid all types of addictions at all times.
20. The driver/conductor should refrain from touching face, mouth, nose and eyes with his hands at all times.
21. The driver/conductor should ensure that the passengers do not make a crowd/ stand closely while boarding/deboarding the vehicle.
22. A separate queue for Senior citizens/elderlies above 60 years and a preference in boarding/deboarding the bus shall be given to them.
23. The driver should avoid any unnecessary halts during the journey.
24. The driver should not pick up any new/additional passenger en-route even if the vacant seats are available.
25. The conductor while transacting cash should immediately sanitize his hands after any such transactions. He should also encourage the other person to sanitize his/her hands before and after the transaction.
26. It is advised that all the staff/manpower should undergo self-monitoring for symptoms and report in case any symptom appears.
27. A driver/conductor suffering from high fever/cough/sneezing/difficulty in breathing should voluntarily report the same to his employer, if so as well as seek immediate medical advice for timely detection and treatment.
28. The staff/manpower should not indulge in gossip/rumours with regard to COVID-19 without verifying the facts either amongst themselves or with passengers. They should use “COVA APP” developed by the Government of Punjab for the correct, timely and authentic information.

III. Advisory for the passengers

1. Passengers are advised to religiously report at the time and pick-up point as per the schedule/SMS sent to them
2. Passengers should preferably carry pocket-based Hand Sanitizer for their frequent use.
3. Passengers are advised not to roam unnecessarily in the depot space/corridors/bus bays etc. but wait patiently at their boarding point for their turn.
4. Passengers are advised to wash their hands with soap at the hand-washing stations installed by the Transport authority before entering their queues for boarding the bus.
5. Passengers are advised to buy the tickets before boarding the bus. They should digital payments, if possible, to pay the fare. They are advised to wash with soap/sanitize their hands after handling the cash and ticket in the manner prescribed.
6. Wash the hands with soap for at least 40 seconds by applying the soap gently on the palm and back of the hand including web spaces between the fingers and space between the finger and the thumb and the wrist wherever and whenever the opportunity to wash the hands is available.
7. For the purpose of Sanitization, use a minimum of 3 ml of the sanitizer (approximately 2 pushes of sanitizer dispenser) on DRY HANDS for at least 30 seconds for good hygienic hand disinfection.
8. Passengers are advised to stand in a queue maintaining a distance of 1 meter from the co-passenger (Temporary counters/Circles/Square markings) at all the boarding points in the bus-stops/bus-stands.
9. Passengers are advised not to crowd while boarding or de-boarding the bus.
10. Passengers should wear cloth mask at all times during the journey.
11. The passengers should not spit inside the bus or anywhere in the open.
12. Passengers should not smoke or chew tobacco-based products such as gutka, pan masala etc. in the bus. They should avoid all types of addictions at all times.
13. Passengers should refrain from touching face, mouth, nose and eyes with his hands at all times.

14. In case of a cough/sneeze, the passenger should use the handkerchief to cover the face which shall then be kept in his/her own pocket/purse in a manner that the surface of the handkerchief exposed to the cough shall not touch the other parts of the belongings directly.
15. In case a passenger is not carrying the handkerchief, he/she should cough/sneeze into the flexed/bent elbow.
16. In either case, the passenger should immediately sanitize/hand-wash with soap in the manner prescribed his/her hands/other exposed surfaces to cough/sneeze.
17. If a passenger develops/ is suffering from high fever/cough/sneezing/difficulty in breathing he/she should voluntarily report the same to the conductor as well as seek immediate medical advice for timely detection and treatment.
18. Passengers should not indulge in gossip/rumours with regard to COVID-19 without verifying the facts either amongst themselves or with co-passengers. They should use “COVA APP” developed by the Government of Punjab for the correct, timely and authentic information.

IV. Air conditioning

1. Air-conditioners inside the buses should not be used without the presence of any ventilating system.
2. Exhaust fans can be installed inside the buses so as to increase air circulation in the buses.
3. For further reference kindly look into the advisory for the use of Air-conditioners (annexed below).

- V.** In case a co-staff/passenger is diagnosed as COVID-19 with whom one had a contact, there is no need to panic. One should report to the Helpline No. 104/State Control Room No. 01722920074 / 08872090029, detailing the exact nature of exposure so as to assist the medical facility to undertake further necessary actions.

VI. The transport authority, in case staff/manpower is diagnosed as corona positive and such staff/manpower has come for a shift, shall immediately inform the Helpline No. 104/State Control Room No. 01722920074/+91-8872090029 along with all the facts about such person and the contacts he/she might have during the shift. The transport authority shall therefore maintain a complete and proper record of all staff/manpower reporting for duty on any particular day as well as the passengers who have travelled on any particular bus.

All are encouraged to take proper diet, assimilate correct information and keep themselves aware and updated with the information at all times, and indulge in useful and productive activities during the available free time.



**Secretary Health &
Mission Director, NHM, Punjab**

No. MD/NHM/2020/3296(R)-3298(R)

Dated, Chandigarh the 6th May, 2020

1. A copy is forwarded to OSD to Chief Secretary, Punjab for the kind information of Worthy Chief Secretary please.
2. A copy is forwarded to PS to ACS (Home), Punjab for the kind information of Additional Chief Secretary (Home)
3. A copy is forwarded to PS to PSHFW, Punjab for the kind information of Principal Secretary, Health & Family Welfare.



**Secretary Health &
Mission Director, NHM, Punjab**

No. MD/NHM/2020/ 3299(R)-3306(R)

Dated, Chandigarh the 6th May, 2020

Copy forwarded to :

1. Commissioner, FDA, Punjab for information please.
2. MD, PHSC for information please.
3. Commissioner AYUSH cum PD-PSACS for information please.
4. Director Health Services, Punjab for information please.
5. Director Family Welfare, Punjab for information please.
6. Director (ESI), Punjab for information please.
7. Executive Director, SHSRC, Punjab for information please.
8. All Civil Surgeons, Punjab for information & necessary action.



**State Programme Officer (IEC)
NHM, Punjab**

Government of Punjab
Department of Health & Family Welfare
(NHM, Punjab)

No. 3129 (R) - 3136 (R)

Dated, Chandigarh the 24th April, 2020

To

1. All the Special Chief Secretary/ Additional Chief Secretary/ Financial Commissioners / Principal Secretaries/ Administrative Secretaries to the Govt. of Punjab.
2. All the Head of the Department of the Govt. of Punjab.
3. All the Commissioners of the Divisions.
4. All the Commissioners of Police.
5. All the Deputy Commissioners/ District and Session Judges of the State
6. Registrar General, Punjab and Haryana High Court
7. All Senior Superintendents of Police
8. The Secretary, Punjab Vidhan Sabha.

Subject: Advisories regarding the use of Air-conditioning in Residential/Commercial and Hospital Settings in wake of COVID-19 pandemics.

Corona virus Disease 2019 (COVID -19) is a systemic disease caused by a novel Corona virus (SARS-CoV-2), transmitted in most instances through respiratory droplets, direct contact with cases and also through contaminated surfaces/objects. Though the virus survives on environmental surfaces for a varied period of time, it gets easily inactivated by chemical disinfectants. Thus, correct and timely information and knowledge about the corona virus is the key to control the pandemic.

With the onset of summer season in the past few weeks, concerns with regard to the safety and usage of Air conditioners/coolers etc. in the wake of COVID-19 pandemics have been raised. The Air-conditioning systems generally work on the principle of re-circulating the air inside the room and in the current COVID-19 situation, there are apprehensions that the air conditioning poses a threat to other people especially in large facilities such as malls, offices, hospitals, health centres etc.

The State has therefore decided to come up with an advisory to allay all such apprehensions and concerns with regard to safety and usage of Air conditioning/coolers etc. in different settings. The guidelines for usage of air conditioning in various settings is as follows:

SECTION A: RESIDENTIAL APPLICATIONS

1. Room Air Conditioners(Window/Split):

- a) Recirculation of cool air by Room Air Conditioners must be accompanied by outdoor air intake through slightly open windows and exhaust by natural exfiltration.
- b) The room temperature should be set between 24-27 degrees Celsius and the relative humidity should be maintained between 40% - 70%.
- c) The Air conditioners should be serviced often so as to keep the filters clean.
- d) Exhaust fans can be installed in the rooms containing a large number of people so as to create a negative pressure in the room and ensure the entry of fresh air in the premises.
- e) The circulated air inside the room should be vented out frequently.

2. Evaporative/Desert Air Coolers:

- a) It is advisable to prevent dust entry and maintain hygiene. Evaporative cooler tanks must be cleaned and disinfected and the water drained and refilled frequently.
- b) *Disinfection of Air Coolers:* The evaporative air coolers must be cleaned and disinfected at regular intervals. The water tank should be emptied and then wiped gently with a soft cloth, sponge and warm water to eliminate moldy residue that may have built up since the previous cleaning. The tank can also be washed with mild soapy water and then flushed out with clean water.

For the cooling pads and air vents, a mixture of 50-50 water and vinegar should be used to soak and rinse the pads and the vents.

- c) Evaporative coolers must draw air from outside to ensure good ventilation.

3. Fans:

- a) Fans should be operated with windows kept partly open.
- b) If an exhaust fan is located at a nearby location then it must be kept running to exhaust air for better ventilation.

SECTION B: COMMERCIAL AND INDUSTRIAL FACILITIES

1. The best action to limit the risk of spread of COVID-19 infection through air is to ventilate the indoor environments with outdoor air as much as possible.
2. Mechanical ventilation systems and air conditioning systems, which provide ventilation, can perform this function more effectively than simply opening the windows, because they improve the quality of the outdoor air with filtration.
3. If fresh air is not provided, it is advisable to introduce a fresh air duct attached to a central inline fan filter unit and distribute the fresh air by grilles into the space or near the indoor units in case of multiple cassette or multiple hi-wall units.
4. A minimum fresh air volume of 3 cubic meter/hour per person and 3.75 cubic meter per hour per square metre (5 cfm per person and 0.6 cfm per sq ft) is recommended.
5. In case of ducted fan-coiled and air handling units, fresh air must be provided by an inlet duct and fan.
6. In buildings without mechanical ventilation systems, it is recommended to actively use operable windows.
7. In case of re-circulating system, it is advisable to limit the return air circulation. The return air system could be converted to an exhaust system.

SECTION C: HEALTHCARE FACILITIES

1. In healthcare settings, the probability of spread of infection is higher especially in COVID-19 wards or isolation centres.
2. It is therefore recommended that the air-conditioning system in these facilities should be isolated and different from rest of the hospital or the building so as to prevent the re-circulation of air which may be containing the droplet nuclei having virus.
3. In certain settings, where a separate air conditioning is not possible/feasible, exhaust air is likely to contain particles carrying the virus and hence a suitable technique should be deployed to prevent the spread of infections. The treatment of exhaust air can be done by HEPA filtration or by chemical disinfection of the exhaust air from COVID-19 patient room by bubbling the exhaust air through a “Diffused air aerator tank” (preferably of non-metallic material) holding a 1% sodium hypochlorite solution.
4. Exhaust Air can also be treated by exposing it for 45 minutes to a temperature of 75° *Celsius* to inactivate the SARS-CoV.
5. Similarly, an UVC (254 nm wavelength) irradiation with an exposure time of 15 minutes at irradiation intensity of 4016 $\mu\text{W}/\text{Cm}^2$ results in complete inactivation of SARS-CoV.
6. Due to the possibility of presence of active viral particles on the exhaust systems, it is advised to follow suitable personal and environment protection protocols during any maintenance activity on the exhaust system.
7. In resource constrained settings, certain make-shift Isolation enclosures can be designed to provide the necessary protection from the COVID-19 viral particles. This could be a temporary makeshift cubicle or tent constructed out of a skeleton structure (of plastic or metal) and plastic sheet or canvas covering.
8. A quarantine centre shall be well ventilated and preferably be maintained at a negative or neutral differential pressure. When mechanical ventilation is resorted to, it shall be a once through system (non- recirculatory system) that provides a “clean to dirty” (towards the patient and away to the exhaust) air flow pattern.

9. Preventive maintenance on all units as per the manufacturer's guidelines shall be ensured.

This should include disinfecting and cleaning of:

- i) Filters, grilles, diffusers & internal surfaces: It is recommended to use 5% Cresol solution (containing 50% Cresol and 50% Liquid soap solution) for the purpose of disinfection. Mix 1 liter of this solution in 9 liters of water. The surface shall be sprayed with this solution, left for 10 minutes and then washed / wiped clean with water / cloth. (the above methodology is only for washable filters)
- ii) Condensate drain pan: Disinfecting / treatment of condensate drain pan is suggested using UV treatment or 1% sodium hypochlorite dosing. This will apply only if the HVAC equipment is working on a re-circulatory mode.
- iii) Coils: Follow standard recommendations of coil cleaning and then sanitize using the same protocol as that of the filters specified above.

The fresh air and ventilation system should be kept on throughout the off cycle and on the weekend and holidays in air circulation mode.

SECTION D : OFFICES

1. The offices use different types of air conditioning, ie, Window/ Split air conditioners to centralized air conditioning to coolers during summer seasons. The employers are advised to refer to relevant section in this advisory depending upon the type of air conditioning installed in their offices.



**Secretary Health &
Mission Director, NHM, Punjab**

No. 3137 (R) - 3138 (R)

Dated, Chandigarh the 24th April, 2020

1. A copy is forwarded to OSD to Chief Secretary, Punjab for the kind information of Worthy Chief Secretary please.
2. A copy is forwarded to PS to PSHFW, Punjab for the kind information of Principal Secretary, Health & Family Welfare.



**Secretary Health &
Mission Director, NHM, Punjab**

No. 3139 (R) - 3145 (R)

Dated, Chandigarh the 24th April, 2020

Copy forwarded to :

1. Commissioner, FDA, Punjab for information please.
2. MD, PHSC for information please.
3. Commissioner AYUSH cum PD-PSACS for information please.
4. Director Health Services, Punjab for information please.
5. Director Family Welfare, Punjab for information please.
6. Director (ESI), Punjab for information please.
7. All Civil Surgeons, Punjab for information & necessary action.



**State Programme Officer (IEC)
NHM, Punjab**