

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

No. MD/NHM/2020/3147 (R)

Dated, Chandigarh the 25th April, 2020

To

1. Additional Chief Secretary (Industries & Commerce), Punjab
2. Principal Secretary, Labour, Punjab
3. CEO, Invest Punjab
4. Director, Industries and Commerce, Punjab
5. Labour Commissioner, Punjab
6. MD, PSIEC, Punjab
7. All Deputy Commissioners, Punjab

Subject: Advisory on maintaining the hygiene and sanitization of the Public/Private Sector Industries and the staff working therein during the COVID-19 pandemic.

Coronavirus Disease 2019 (COVID -19) is a systemic disease caused by a novel Coronavirus (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 coronavirus is the key to control the pandemic.

The Government of Punjab has imposed severe restrictions on free movement of people in the larger public interest of controlling the spread/transmission of Coronavirus through the imposition of Curfew in its all 22 districts. The Government has, however, allowed essential activities to continue with an objective to minimise the hardships. The Government has also allowed certain industries to operate subject to these industries meticulously following the preventive measures to control the spread of Coronavirus.

The guidelines to be followed by the industry is thus summarised as below:

I. Guidelines for Industrialists/Employers:

1. Only the industry allowed by the Government of Punjab shall operate. The Department of Home Affairs and Justice, Government of Punjab vide its letter no SS/ACSH/2020/310 dated 20.4.2020 has issued the detailed and consolidated guidelines elaborately laying the categories of industry which have been allowed to operate.

2. The employer should devise a comprehensive work-plan that not more than 50% of the staff/labour is working at a particular time. The factory manager could devise staggered shift start timetables for all employees keeping in mind that no employee should work for more than 8 hours.
3. Shorter shifts for Production employees, no overlap between shifts and providing a cushion of almost 1 hour between the shifts for disinfection with 1% sodium hypochlorite solution or any other equivalent commercially available disinfectant may be resorted to.
4. Staff may be called on rotation depending upon functionality of the factory/office and for remaining staff; a system of work from home may be made functional depending upon the duties of the employees.
5. The employer should encourage the staff to stay at home in case of any fever or other symptoms related to the COVID-19 and seek medical advice.
6. Installation of thermal scanners at the entry gate of the factory is mandatory to screen the staff 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.
7. The staff/labour shall be advised not to indulge in any handshakes or hugs to greet/see-off each other.
8. All should be advised to follow strict social distancing measures and maintain a minimum distance of 1 metre amongst themselves at all times. Markings at all crowded areas like Entry Gate, Water Coolers, and Canteens etc. should be done to facilitate social distancing.
9. The staff/labour shall further be advised not to roam unnecessarily in the office space/corridors and to work from their allotted space only. Use of intercoms/electronic media for interpersonal communication of the staff/labour should be encouraged.
10. The employer and the Staff should wear cloth masks at all times.
11. The masks shall be worn in a manner that it snugly covers the nose as well as the mouth.
12. The cloth mask should be washed with soap and water daily after use.

13. Staff detected with high fever in the office premises does not mandatorily mean that he/she is suffering from COVID-19. It is advised to get the staff suffering from high fever medically examined by the employer only by temporarily isolating him/her from the rest of the factory space before drawing any conclusion/inferences and before sending him/her back to home.

14. Hand Washing and Sanitisation:

- a. The employer may preferably install hand washing stations (with soap and water) in sufficient no, as per the footfall assessment.
 - b. The employer may install a public address system for announcements at regular intervals or in the alternative, display banners to instil the practice of hand washing.
 - c. Encourage the staff/labour to 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 as well as between the finger and the thumb and the wrist wherever and whenever the opportunity to wash the hands is available. However, a two-hourly hand wash is recommended.
 - d. Alcohol-based sanitizer (minimum 70% ethyl alcohol v/v) should be mounted at the entrance wall of the factory and its office for the staff/labour to sanitize their hands before entering the premises further. 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.
 - e. Sanitize the hands even if the hands appear to be apparently clean.
 - f. The hands should be either sanitized or washed with soap and water whichever is feasible and available.
15. In case of multi-storied offices/factories where the elevators (commonly called lifts) are to be used, sanitizers shall be mounted near the entry door of the elevator at each and every floor. The staff may be advised to apply the sanitizer on the hands immediately after pressing the elevator's button before touching any other surface/body part. In case of self-driven lifts, the sanitizer should also be made available inside the lifts for the usage of the staff immediately after pressing the button.

16. In case the sanitizers may not be available in sufficient quantity, the sanitizers may be mounted inside the lifts ALONE for usage by the staff immediately after pressing the buttons in the manner as prescribed in point 14(d).
17. The factory area should have an isolation ward/quarantine area in their premises to isolate any suspected case.
18. All should be encouraged to follow the norms of respiratory etiquettes. Cover the mouth while coughing/sneezing preferably with tissue paper. After every use, use a new tissue paper and discard it in the dustbin. In case handkerchief/tissue is not available, then it is preferable to cough/sneeze into one's bent elbow rather than one's palms.
19. **Transportation of Staff:** The staff and workers, in case they are coming from outside, should be encouraged to use their personal vehicles as much as possible and avoid carpooling. If there is no other option, then the car should not have more than 2 people.
- The employer may, for workers coming from outside, arrange a special transportation facility. Such a vehicle should be allowed to ply only with 30-40% passenger capacity. Also, the company transport users should be screened before boarding the bus. The guidelines on Transport vehicles issued by the Government in this regard should be strictly adhered to.
 - All vehicles and machinery entering the premise should be disinfected by 1% sodium hypochlorite solution mandatorily.
20. **Disinfection of the Factory/office spaces**
- a. **Indoor Areas:** Indoor areas including factory/office spaces and conference rooms should be cleaned every evening after factory hours or early in the morning before the rooms are occupied. 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, escalators, elevators, security guard booths, office rooms, meeting 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 elevator buttons, handrails / handles and call buttons, escalator handrails, 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.
- Hand sanitizing stations should be installed in factory/office premises and near high contact surfaces.
- In a factory/meeting/conference/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 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. **Outdoor areas:** Outdoor Areas have less risk than indoor areas due to air currents and exposure to sunlight. Cleaning and disinfection efforts should be targeted to frequently touched/contaminated surfaces as already detailed above.
- c. **Factory/Office 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.

- d. **Pantry** in the office, if any, should also be cleaned as the other inside office spaces. Special care needs to be taken while cleaning the slabs and the sinks, if any with soap/detergent and water.
- The utensils should be properly cleaned with dish wash bars /liquids and water.
 - The utensils should not be shared amongst the staff.
 - Consumption of raw fruits/vegetables during refreshment period should be discouraged and the same shall be washed with lukewarm water before consumption. Similarly, the milk packets shall be washed with soap and water before opening the same for usage.
21. Employees/workers should be encouraged to follow the social distancing measures while coming for the tea/canteens for tea/lunch breaks. The number of tea points can be increased to avoid crowding and employees should be encouraged to take tea-breaks at different times.
22. Avoid using the biometric attendance system.
23. In case of manufacturing and other industrial establishments with access control in Special Economic Zones (SEZs) and Export Oriented Units (EoUs) industrial estates, and industrial townships, a special arrangement for stay of workers within their premises as far as possible and/or adjacent buildings should be made.
- The employer should, in such cases, ensure that the sleeping area/place for his labour is well ventilated and of adequate area so that the requirement of social distancing of at least 1 meter is met. The employer will ensure that such place is regularly cleaned and disinfected with soap/detergent and water.
 - The employer should also ensure the regular cleaning of the toilet at his factory provided to its labour by his sanitary workers who should use a separate set of cleaning equipment for toilets (mops, nylon scrubber). The worker should always wear disposable protective gloves while cleaning a toilet.
 - The employer shall ensure that the staff/workers staying at factory does not wander/move out of the premises after duty hours for any purpose, including food.

II. Guidelines for the employees:

- i. An employee suffering from high fever/cough/sneezing/difficulty in breathing should voluntarily report the same to employer as well as seek immediate medical advice for timely detection and treatment.
- ii. The employee should wear masks at all times and should follow the reporting time as well as the time to leave the office as prescribed by the employer.
- iii. The employee should not indulge in handshake/hug with fellow employees and should discharge his/her work from the space allocated by the employer.
- iv. Before touching/using any machine, it is better to disinfect it with 1% Hypochlorite solution.
- v. The employee should avoid roaming without purpose in the office as also touching the surfaces, equipment etc.
- vi. The employee should not smoke or chew tobacco-based products such as gutka, pan masala etc. in the office/factory space.
- vii. As far as possible, the employee should use foot to open the door. Avoid touching the surfaces like door handles, staircase railings, walls and other possibly infected surfaces.
- viii. The employee should meticulously sanitize/wash his hands with soap in the manner prescribed at point 14(d) at least every 2 hourly.
- ix. Do not miss your meals and do light exercise at your home.
- x. The employee should mandatorily hand wash/sanitize in the manner prescribed before touching the refreshments during tea-break/lunch-break etc.
- xi. The staff/workers should not share their lunches/snacks with each other in order to prevent cross-infection. The lunch/snacks should be served by the pantry staff only and the workers should not touch any utensil
- xii. In case of a cough/sneeze, the employee should use the handkerchief to cover the space which shall then be kept in his/her own pocket/purse in a manner that the surface of the handkerchief exposed to the cough/sneeze shall not touch the other parts of the belongings directly.
- xiii. In case an employee is not carrying the handkerchief he/she should cough/sneeze into the flexed elbow.

- xiv. In either case, the employee should immediately hand wash with soap in the manner prescribed his hands/other exposed surfaces to cough/sneeze.
- xv. The employee should refrain from touching face, mouth, nose and eyes with his hands at all times.
- xvi. The employee should not spit except when absolutely essential and only in the washbasin of the toilet in the office space.
- xvii. Avoid all type of gatherings like social, religious, political etc.
- xviii. The employee should not indulge in gossip/rumours with regard to COVID-19 without verifying the facts. The employer may encourage the employee to download “COVA APP” developed by the Government of Punjab for the correct, timely and authentic information.

III. Air-Conditioning/Coolers:

- i. Prefer natural ventilation at workplace.
- ii. The detailed guidelines issued in this regard may be meticulously followed. (Copy Annexed)

IV. In case a co-staff/colleague is diagnosed as COVID-19 with whom one had a contact during office, 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.

V. The employer, in case an employee is diagnosed as corona positive and such a staff/labour has attended the office, shall immediately inform the Helpline No. 104/State Control Room No. 01722920074/+91-8872090029 along with all the facts about the staff/labour and the contacts he/she might have during the attendance in the office. A complete and proper record of all employees attending the office on any particular day should be maintained.

- VI.** Hospitals/clinics in the nearby areas which are authorized to treat COVID-19 patients should be identified and list should be available at work place all the times.

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/2020/3148 (R)

Dated, Chandigarh the 25th 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 ACS (Home), Punjab for the kind information of Additional Chief Secretary (Home)
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. MD/NHM/2020/3149 (R)

Dated, Chandigarh the 25th 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. Executive Director, SHSRC, Punjab for information please.
7. 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

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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**