



JAPAN P&I NEWS

Novel Coronavirus (2019-mCoV) (No.3)

The Maritime and Port Authority of Singapore (MPA) has issued some circulars about the Novel Coronavirus. Please refer to the attachment for details.

Since 24 January 2020, the Maritime and Port Authority of Singapore (MPA) has implemented temperature screening at all sea checkpoints, including ferry and cruise terminals, PSA terminals and Jurong Port, for inbound travellers.

In line with Singapore Ministry of Health's (MOH) press release dated 31 January 2020 (appended in Annex 1 of PMC 02 of 2020), MPA will extend the precautionary measures to include passengers and crew members with recent travel history to mainland China within the last 14 days, as well as ships whose previous port of calls in the last 14 days included mainland China. This is in effect since 1 February 2020, 2359h.

We recommend monitoring the situation and check a latest situation with local agent and MPA website (<https://www.mpa.gov.sg/web/portal/home>) before the vessel will enter and use in the next port of call.

Yours faithfully,

The Japan Ship Owners' Mutual Protection & Indemnity Association

Attachment: PORT MARINE CIRCULAR NO.2 OF 2020 (EXTENSION OF PRECAUTIONARY MEASURES TO MINIMISE RISK OF COMMUNITY SPREAD OF THE WUHAN CORONAVIRUS IN SINGAPORE)
PORT MARINE CIRCULAR NO.3 OF 2020 (MARITIME DECLARATION OF HEALTH)



MARITIME AND PORT AUTHORITY OF SINGAPORE

PORT MARINE CIRCULAR
NO. 02 OF 2020

1 February 2020

Harbour Craft Community
Pleasure Craft Community
Shipping Community

Extension of Precautionary Measures to Minimise Risk of Community Spread of the Wuhan Coronavirus in Singapore

1. Since 24 January 2020, the Maritime and Port Authority of Singapore (MPA) has implemented temperature screening at all sea checkpoints, including ferry and cruise terminals, PSA terminals and Jurong Port, for inbound travellers. MPA has also put up health advisories at the sea checkpoints to inform travellers and ship crew on the precautionary measures to take when travelling, as well as to remain vigilant and adopt good hygiene practices.
2. Some shipping companies have taken additional precautionary measures such as disallowing shore leave for personnel in China ports, mandatory temperature checks, keeping a log of crew movements and restricting staff travel to China.
3. In line with Singapore Ministry of Health's (MOH) press release dated 31 January 2020 (**Annex 1**), the MPA will extend the precautionary measures to include passengers and crew members with recent travel history to mainland China within the last 14 days, as well as ships whose previous ports of call in the last 14 days included mainland China. This will take effect from 1 February 2020, 2359h.
4. Ships can continue to berth at terminals to carry out operations.

Advice for shipping community

5. MPA advises the shipping community to adhere closely to the health advisory in **Annex 2**. The National Environment Agency's (NEA) Port Health requires all arriving vessels with crew and passengers that have called at ports in mainland China in the past 14 days to submit the Maritime Declaration of Health Form. MPA also urged all crew members on-board to have their temperature taken twice a day. There are also guidelines on how to isolate unwell crew and passengers. For guidance on the

disinfection protocols of common areas and rooms in the vessel, please refer to the NEA's website for the Interim Guidelines for Environmental Cleaning and Disinfection of Areas Exposed to Confirmed Case(s) of Novel Coronavirus (2019-nCoV) in Non-Healthcare Commercial Premises, if needed. If any of their crew or passengers are unwell, they should report the incident to the Marine Safety Control Centre at 6325 2488/2489.

6. Managers/supervisors of terminal operators, agents, contractors and service providers are to take note of the health advisory in **Annex 3** and bring it to the attention of staff who are required to work on board ships.

Advice for Singapore-Registered Vessels

7. Ship owners, managers, operators, agents and masters of Singapore-registered vessels should monitor the health of their crew closely. Masters of such vessels are required to report to their company, MPA and destination port authorities, if their crew are unwell, experience respiratory symptoms (e.g. cough, runny nose, shortness of breath) or feel feverish. They should also make the necessary arrangements to seek medical attention. Refer to the health advisory in **Annex 4**.

Measures by Regional Ferry Operators

8. MPA-licensed regional ferry operators have been conducting outbound temperature screenings to ensure no febrile passengers board the ferries. In addition, the ferry operator will disinfect the ferry after every trip.

Measures by Port Terminal Operators

9. PSA and Jurong Port are also taking precautionary measures for employees returning to Singapore from mainland China. Some of these measures include allowing eligible staff to telecommute and providing frontline staff with paid Leave of Absence where they are unable to work remotely.

CAPT KEVIN WONG
PORT MASTER
MARITIME AND PORT AUTHORITY OF SINGAPORE

MOH'S PRESS RELEASE ON THE EXTENSION OF PRECAUTIONARY MEASURES TO MINIMISE RISK OF COMMUNITY SPREAD IN SINGAPORE, DATED 31 JANUARY 2020



MINISTRY OF HEALTH
SINGAPORE

Press Release

EXTENSION OF PRECAUTIONARY MEASURES TO MINIMISE RISK OF COMMUNITY SPREAD IN SINGAPORE

Latest developments

On Tuesday, 28 January 2020, the Ministry of Health (MOH) announced additional measures to limit the risk that travellers from Hubei pose to Singapore. These measures have been fully implemented.

2. On 30 January, the Director-General of the World Health Organization (WHO) declared China's novel coronavirus (2019-nCoV) outbreak a public health emergency of international concern (PHEIC). This declaration sets the stage for a global coordinated effort to enhance preparedness in other regions of the world. WHO believes that it is still possible to interrupt the spread of the virus, provided that countries put in place strong preparedness and response measures. Indeed, there has been increased action worldwide to limit the global spread of the virus by restricting the entry of possible contacts and cases into other countries.

3. While the majority of confirmed cases in China are still linked to Hubei province, MOH understands that there is a growing possibility that more individuals from other parts of China may be infected with the virus. Significantly, the virus has spread to every region of mainland China. The number of reported infections in China has also doubled since 28 January, to over 9,000, and the likelihood of widespread community transmission in other parts of China is now high. As a result, we are likely to see a sharper rise in the local transmission of the virus in Chinese cities beyond the Hubei province in the coming days.

4. In view of the growing possibility of transmission from new travellers arriving from other parts of mainland China, MOH has assessed that it is prudent to take additional pre-emptive measures at this stage. Therefore, the Multi-Ministry Taskforce on the Wuhan Coronavirus has decided to take further steps to limit the potential risk that new travellers arriving from mainland China pose to Singapore.

New visitors with travel history in mainland China or with PRC passports

5. From 1 February 2020, 2359h, all new visitors with recent travel history to mainland China within the last 14 days will not be allowed entry into Singapore, or to transit through Singapore.

6. In the same context, with immediate effect, the Immigration and Checkpoints Authority (ICA) will suspend the issuance of all forms of new visas to those with PRC

passports. We will also suspend Singapore's status as a visa-free transit facility for those with PRC passports.

7. Previously issued short-term and multiple-visit visas for those with PRC passports will also be suspended. During this period of suspension, they will not be allowed entry into Singapore.

Returning residents and long-term pass holders with travel history in mainland China

8. With immediate effect, the following returning groups will be issued an advisory for them to be placed on a 14-day leave of absence from the day of their return from China:

- a) Residents (Singaporean Citizens/ PRs) with recent travel history to mainland China within the last 14 days; and
- b) Long-term pass holders (including Work Passes and Permits, Student Pass, Dependent Pass and Long-term Visit Pass) with recent travel history to mainland China within the last 14 days.

9. Persons who have been put on a leave of absence should stay at home and avoid social contact. They should avoid crowded places and refrain from attending social or public gatherings. They should monitor their health closely, and seek medical attention immediately if they develop any fever or symptoms of acute respiratory illness such as cough or shortness of breath.

10. This is an expansion of the previous measures already implemented for people who interact closely with vulnerable populations in certain sectors — childcare and education, healthcare and eldercare.

11. Previously announced quarantine requirements for returning residents and long-term pass holders with travel history to Hubei, or with PRC passports issued in Hubei, remain in effect.

Remaining cautious and calm

12. There remains no evidence of community spread in Singapore, and these latest measures are aimed at minimising the risk of this occurring. They will also help to stem the global spread of the virus. These latest steps are part of a calibrated series of measures we have taken as the situation of the virus outbreak has evolved. The Taskforce will continue to monitor the situation and take further steps as needed.

13. Meanwhile, Singaporeans can continue to play their part by being socially responsible and practising good personal hygiene habits. They should wash their hands regularly. Those who are unwell should wear a mask and see a doctor immediately. But there is no need to wear a mask if you are well.

14. At the same time, Singaporeans can help each other to cope with the disruptions that these new restrictions may cause. The Government will do its part to support businesses and workers that are affected.

15. We urge Singaporeans to remain calm, and to refer to official sources such as the MOH website or subscribe to the gov.sg WhatsApp, to get the latest updates on the situation.

MINISTRY OF HEALTH
31 JANUARY 2020

For media queries, please contact:

Janice Tay (Ms)
Manager
Corporate Communications Division
Ministry of Health
Contact: 6325-1681 / 9190-9146
Email: Janice_Tay@moh.gov.sg

HEALTH ADVISORY ON CHINA'S NOVEL CORONAVIRUS (2019-nCoV) FOR OPERATORS, OWNERS, MASTERS, PERSONS IN CHARGE AND CREW MEMBERS OF HARBOUR AND PLEASURE CRAFT

Precautions to take to minimise the risk of 2019-nCoV infection

Operators, owners, masters and persons-in-charge and crew members of harbour craft and pleasure craft should take the following precautions:

- a. Avoid contact with live animals including poultry and birds;
- b. Avoid consumption of raw and undercooked meat;
- c. Avoid crowded places and close contact with people who are unwell or showing symptoms of illness;
- d. Observe good personal hygiene;
- e. Practice frequent hand washing with soap;
- f. Wear a mask if you have respiratory symptoms such as a cough or runny nose;
- g. Cover one's mouth with tissue paper when coughing or sneezing, and dispose the soiled tissue paper in the rubbish bin immediately;
- h. Seek medical attention promptly if you are feeling unwell
- i. Minimise unnecessary interactions with the ship's crew

Managing unwell passenger(s)

3 The typical symptoms of the 2019-nCoV are:

- a. Fever;
- b. Runny nose;
- c. Cough; and
- d. Shortness of breath

4 Masters/crew members who notice any passenger who is unwell and displaying the above symptoms should:

- a. Notify the operators, owners, or persons-in-charge who should then immediately report this to the Marine Safety Control Centre (Tel: +65 6325-2488/2489) and arrange for appropriate medical assistance.
- b. Provide a surgical mask to the passenger who is unwell.
- c. Wear a surgical mask when attending to the passenger who is unwell.

- d. Surgical masks should be changed regularly, and if they are soiled or wet.
- e. If a surgical mask is not available, the passenger should cover his/ her mouth and nose with tissues when coughing.
- f. All masks, napkins, tissues, utensils and trays used by the passenger who is unwell should be disposed in leak-resistant plastic bags.

Monitor your health

5 Crew members should be aware of the symptoms of 2019-nCoV. Any crew member who develops such symptoms in Singapore within 14 days of coming into contact with a passenger who is unwell should seek medical attention immediately. The crew member should wear a mask and call the clinic ahead of his/her visit.

HEALTH ADVISORY ON CHINA'S NOVEL CORONAVIRUS (2019-nCoV) FOR SHORE PERSONNEL VISITING SHIPS ALONGSIDE THE WHARVES AND AT THE ANCHORAGES

Managers/supervisors of terminal operators, agents, contractors and service providers are to take note of the following health advisory and bring it to the attention of shore personnel who are required to work on board ships.

Precautions to take to minimise the risk of infection

6 Shore personnel refer to any persons, other than the ship's crew, who are required to board ships alongside wharves or at the anchorages to deliver services requested by ships. They include staff of terminal operators, agents, contractors and service providers.

7 To minimise the risk of 2019-nCoV infection, all personnel should take the following precautions:

- a. Avoid contact with live animals including poultry and birds;
- b. Avoid consumption of raw and undercooked meat;
- c. Avoid crowded places and close contact with people who are unwell or showing symptoms of illness;
- d. Observe good personal hygiene;
- e. Practise frequent hand washing with soap;
- f. Wear a mask if you have respiratory symptoms such as a cough or runny nose;
- g. Cover one's mouth with tissue paper when coughing or sneezing, and dispose the soiled tissue paper in the rubbish bin immediately;
- h. Seek medical attention promptly if you are feeling unwell
- i. Minimise unnecessary interactions with the ship's crew

8 Managers/supervisors should closely monitor the health of shore personnel who are required to work on board ships. Shore personnel exhibiting symptoms of 2019-nCoV, which include fever, runny nose, sore throat, cough, and shortness of breath, should not be sent on board ships. Medical attention should be sought immediately.

9 Before boarding any ship, shore personnel should check with the ship master or duty officer if there are any procedures and/or guidelines to be observed, and adhere to them when on board the ship.

HEALTH ADVISORY ON CHINA'S NOVEL CORONAVIRUS (2019-nCoV) FOR SHIPOWNERS, SHIP MANAGERS, AGENTS AND MASTERS OF SINGAPORE REGISTERED SHIPS

The Maritime and Port Authority of Singapore (MPA) urges operators of Singapore Registered Ships (SRS) to take precautionary measures, as well as to remain vigilant and adopt good hygiene practices at all times.

10 Shipowners, ship managers, agents and masters of SRS are to closely monitor the health of their crew on board. If they develop any of the symptoms of the 2019-nCoV, they should be given immediate medical attention. The typical symptoms of the 2019-nCoV are:

- a. Fever;
- b. Runny nose;
- c. Cough; and
- d. Shortness of breath

11 Ship crew who feel unwell, experience respiratory symptoms (e.g. cough, shortness of breath) or feel feverish, should inform the ship master immediately. The ship master should then inform the company, destination port authority and ship agent to make the necessary arrangements to seek medical attention. Shipowners and masters are to report all occurrences to MPA using the report form found in MPA Shipping Circular No. 4 of 2013.

12 For further information on the 2019-nCoV, please visit the Ministry of Health website at www.moh.gov.sg

13 Any queries regarding this Annex should be directed to MPA Shipping (Email: shipping@mpa.gov.sg; Tel: +65 6375 6251).



MARITIME AND PORT AUTHORITY OF SINGAPORE

PORT MARINE CIRCULAR NO. 03 OF 2020

01 Feb 2020

Harbour Craft Community
Pleasure Craft Community
Shipping Community

MARITIME DECLARATION OF HEALTH

This circular brings to the attention of the National Environment Agency's (Port Health Office) requirements to submit the Maritime Declaration of Health to the Port Health Office. These requirements are applicable for:

- a) all arriving vessels that have called at ports in China in the past 14 days;
OR
- b) all arriving vessels with crew/passengers who have travelled to mainland China in the past 14 days.

2 This declaration is part of the measures to prevent the spread of Wuhan coronavirus (2019-nCoV) into Singapore and will come into effect from 01 Feb 2020, 2359h. It must be submitted to the National Environment Agency's (Port Health Office) 24 hours before arrival at Singapore Port.

3 These requirements are listed in National Environment Agency's (Port Health Office) circular as attached in **ANNEX A**. The Maritime Declaration of Health Form is attached in **ANNEX B**.

4 The master of the ship is recommended to implement the following additional precautionary measures:

- Educate crew/passengers of the symptoms of 2019-nCoV, which are:
 - Fever;
 - Runny nose;
 - Cough; and
 - Shortness of breath
- Carry out daily temperature checks for all crew/passengers at least twice a day;
- Isolate unwell crew/passengers when his/her temperature is above 38 degree Celsius. The unwell crew should also wear a mask; and
- Disinfect common areas and rooms in the vessel before arrival in Singapore. The disinfection may be conducted by the ship's crew en-route to Singapore. You can refer to the Interim Guidelines for Environmental Cleaning and Disinfection of Areas Exposed to Confirmed Case(s) of Novel Coronavirus (2019-nCoV) in Non-Healthcare Commercial Premises prepared by NEA for guidance on the disinfection protocols, if needed. See **ANNEX C**.

5 Any queries relating to this circular should be directed to the Port Health Office at Tel: (65) 6222-2585.

CAPT KEVIN WONG
PORT MASTER
MARITIME AND PORT AUTHORITY OF SINGAPORE



Central Regional Office
4545 Jalan Bukit Merah
Singapore 159466
www.nea.gov.sg

31 January 2020

Shipping Community,

COMPULSORY MARITIME HEALTH DECLARATION BY VESSELS THAT HAVE BEEN TO CHINA PORT IN THE PAST 14 DAYS

In view of the escalated novel coronavirus situation in Wuhan and other parts of China, Port Health Unit/ NEA will be implementing additional measures to guard against the virus in Singapore.

2 As part of the measures to prevent the spread of the novel coronavirus (2019-nCoV), all vessels that had been to any ports in China in the past 14 days; or all arriving vessels with crew/passengers who have travelled to China in the past 14 days are required to submit the following documents to the Port Health Unit/ Central Regional Office 24 hours before arrival at Singapore Port:

- I. The Maritime Declaration of Health Form
- II. Crew list/ Passenger list
- III. Current copy of Ship Sanitation Certificates
- IV. Last 5 ports of call list

The stated documents must be submitted regardless whether there are any sick passengers or crew on board. This procedure is to be implemented with effect from 1st February 2020 at 2359hrs local time.

3 The Maritime Declaration of Health Form and other documents should be submitted to the Port Health Unit/ Central Regional Office and Maritime and Port Authority of Singapore via :-

- i) Fax: 62228543
- ii) Email: Port_Health_CRO@nea.gov.sg
- iii) Email: isps@mpa.gov.sg

4 Should you have further queries, please contact Port Health Unit at Tel: 6222 2585 or email at Port_Health_CRO@nea.gov.sg

Yours faithfully,

NASIR MAIDEEN

DY HEAD
CENTRAL REGIONAL OFFICE
NATIONAL ENVIRONMENT AGENCY

The MDH must be completed and submitted a maximum of 24 hours before arrival, with an update, if the health status of any one on board changes

MARITIME DECLARATION OF HEALTH

To be completed and submitted to the competent authorities by the masters of ships arriving from foreign ports.

Submitted at the port of Date

Name of ship or inland navigation vesselRegistration/IMO No

arriving from sailing to

(Nationality)(Flag of vessel) Master's name

Gross tonnage (ship)

Tonnage (inland navigation vessel)

Valid Sanitation Control Exemption/Control Certificate carried on board? Yes No Issued at date

Re-inspection required? Yes No

Has ship/vessel visited an affected area identified by the World Health Organization? Yes No

Port and date of visit

List ports of call from commencement of voyage with dates of departure, or within past thirty days, whichever is shorter:

.....

.....

.....

Upon request of the competent authority at the port of arrival, list crew members, passengers or other persons who have joined ship/vessel since international voyage began or within past thirty days, whichever is shorter, including all ports/countries visited in this period (add additional names to the attached schedule):

(1) Namejoined from:(1)(2)(3)

(2) Namejoined from:(1)(2)(3)

(3) Namejoined from:(1)(2)(3)

Number of crew members on board

Number of passengers on board

Health questions

- (1) Has any person died on board during the voyage otherwise than as a result of accident? Yes No
If yes, state particulars in attached schedule. Total no. of deaths
- (2) Is there on board or has there been during the international voyage any case of disease which you suspect to be of an infectious nature? Yes..... No..... If yes, state particulars in attached schedule.
- (3) Has the total number of ill passengers during the voyage been greater than normal/expected? Yes No
How many ill persons?
- (4) Is there any ill person on board now? Yes No If yes, state particulars in attached schedule.
- (5) Was a medical practitioner consulted? Yes No If yes, state particulars of medical treatment or advice provided in attached schedule.
- (6) Are you aware of any condition on board which may lead to infection or spread of disease? Yes No
If yes, state particulars in attached schedule.
- (7) Has any sanitary measure (e.g. quarantine, isolation, disinfection or decontamination) been applied on board? Yes No
If yes, specify type, place and date
- (8) Have any stowaways been found on board? Yes No If yes, where did they join the ship (if known)?
- (9) Is there a sick animal or pet on board? Yes No

Note: In the absence of a surgeon, the master should regard the following symptoms as grounds for suspecting the existence of a disease of an infectious nature:

- (a) fever, persisting for several days or accompanied by (i) prostration; (ii) decreased consciousness; (iii) glandular swelling; (iv) jaundice; (v) cough or shortness of breath; (vi) unusual bleeding; or (vii) paralysis.
- (b) with or without fever: (i) any acute skin rash or eruption; (ii) severe vomiting (other than sea sickness); (iii) severe diarrhoea; or (iv) recurrent convulsions.

I hereby declare that the particulars and answers to the questions given in this Declaration of Health (including the schedule) are true and correct to the best of my knowledge and belief.

Date

Signed
Master

Countersigned
Ship's Surgeon (if carried)

ATTACHMENT TO MODEL OF MARITIME DECLARATION OF HEALTH

Name	Class or rating	Age	Sex	Nationality	Port and date joined ship/vessel	Nature of illness	Date of onset of symptoms	Reported to a port medical officer?	Disposal of case*	Drugs medicines or other treatment given to patient	Comments

State:

- 1) Whether the person recovered, is still ill or died; and*
- 2) Whether the person is still on board, was evacuated (including the name of the port or airport), or was buried at sea..*

Interim Guidelines for Environmental Cleaning and Disinfection of Areas Exposed to Suspected/Confirmed Case(s) of Novel Coronavirus (2019-nCoV) in Non-Healthcare Commercial Premises

This document provides guidance by the Ministry of Health and the National Environment Agency to assist owners or operators of non-healthcare premises to carry out environmental cleaning for areas exposed to suspected/ confirmed case(s) of novel coronavirus (nCoV) in non-healthcare premises.

This is an interim guidance as transmission dynamics for the novel coronavirus (nCoV) are yet to be fully determined. This document has been adapted from guidance documents from the Ministry of Health (MOH), Singapore¹ and the World Health Organization².

A. Cleaning agents and disinfectants

- i. Clean all surfaces, frequently touched surfaces and floors with bleach. Bleach can be used as a disinfectant for cleaning and disinfection (dilute 1 part bleach in 50 parts water, or 1000 ppm). Bleach solutions should be prepared fresh. Leaving the bleach solution for a contact time of at least 10 minutes is recommended.
- ii. Alcohol (e.g. isopropyl 70%, ethyl alcohol 60%) can be used to wipe down surfaces where use of bleach is not suitable e.g. metal.
- iii. If other disinfectants are considered, check with the manufacturer that they are active against coronaviruses. Disinfectants should be prepared and applied in accordance with the manufacturer's guidelines. Ensure that appropriate contact time is given before removing any disinfected materials.

B. Protective Personal Equipment (PPE) to wear while carrying out cleaning and disinfection works

- i. Wear disposable gloves, disposable long-sleeved gowns, eye goggles or face shield and an N95 mask.
- ii. Avoid touching the nose and mouth (goggles may help as it will prevent hands from touching eyes).
- iii. Gloves should be removed and discarded if they become soiled or damaged and a new pair worn.
- iv. All other disposable PPE should also be removed and discarded after cleaning activities are completed. Eye goggles, if used, should be disinfected according to manufacturer's instructions after each use.

¹ Ministry of Health, Singapore. (2014). MOH Pandemic Readiness and Response Plan for Influenza and other Acute Respiratory Diseases

² World Health Organization. (2019). Infection Prevention and Control during Health Care when Novel Coronavirus (nCoV) Infection is Suspected. WHO/2019-nCoV/IPC/v2020.1

- v. When in doubt, refer to guidance documents for the proper donning and doffing of PPE³.
- vi. Hands should be washed with soap and water immediately after each piece of PPE is removed following completion of cleaning.

N.B.: Masks are effective if worn according to instructions and properly fitted. Masks should be discarded and changed if it becomes physically damaged.

C. Cleaning guidelines for areas exposed to suspected/ confirmed case(s) of novel coronavirus (nCoV) in non-healthcare commercial premises

- i. Where possible, seal off the areas where the suspected/confirmed case has visited before carrying out cleaning and disinfection of the contaminated environmental surfaces. This is to prevent unsuspecting persons from being exposed to those surfaces.
- ii. When cleaning areas where a suspected/confirmed case has been, cleaning crews should be attired in suitable PPE (see Section B above). Gloves should be removed and discarded if they become soiled or damaged and a new pair worn. All other disposable PPE should also be removed and discarded after cleaning activities are completed. Goggles, if used, should be disinfected according to manufacturer's instructions after each use. Hands should be washed with soap and water immediately after the PPE are removed.
- iii. Keep cleaning equipment to the minimum.
- iv. Keep the windows open for ventilation where the workers are using disinfectants.
- v. Mop floor with bleach (dilute 1 part bleach in 50 parts water, or 1000 ppm).
- vi. Wipe all frequently touched areas (e.g. lift buttons, handrails, doorknobs, armrests, seatbacks, tables, air/light controls, keyboards, switches etc.) and lavatory surfaces with chemical disinfectants (use according to manufacturer's instructions) and allowed to air dry. Bleach solution (dilute 1 part bleach in 50 parts water, or 1000 ppm) can be used. Alcohol (e.g. isopropyl 70% or ethyl alcohol 70%) can be used for surfaces where use of bleach is not suitable.
- vii. Wipe down walls up to 3m in height as well as blinds with bleach (dilute 1 part bleach in 50 parts water, or 1000 ppm).
- viii. Remove curtains / fabrics / quilts for washing with preferably hot water cycle. For hot-water laundry cycles, wash with detergent or disinfectant in water at 70°C for at least 25 minutes. If low-temperature (i.e. < 70°C) laundry cycles are used, choose a chemical that is suitable for low-temperature washing when used at the proper concentration.
- ix. Discard cleaning equipment made of cloths and absorbent materials e.g. mop head and wiping cloths into biohazard bags after cleaning and disinfecting each area as these materials are not easily disinfected. Wear a new pair of gloves and fasten the double-bagged biohazard bag with a cable tie.

³ World Health Organization. (2008). How to Put On and Take Off Personal Protective Equipment. Retrieved from World Health Organization website:https://www.who.int/csr/resources/publications/PPE_EN_A1sl.pdf

- x. Disinfect non-porous cleaning equipment used in one room before using for other rooms. If possible, keep the disinfecting equipment separated from other routine equipment.
- xi. Disinfect buckets by soaking in bleach (dilute 1 part bleach in 50 parts water, or 1000 ppm, at least 10 minutes), disinfectant solution or rinse in hot water before filling.
- xii. Discard equipment made of cloths/ absorbent materials (e.g. mop head and wiping cloths) after cleaning each area to prevent cross contamination.
- xiii. Disinfectants should be applied to surfaces using a damp cloth. They should not be applied to surfaces using a spray pack, as coverage is uncertain and spraying may promote the production of aerosols. The creation of aerosols caused by splashing liquid during cleaning should be avoided. A steady sweeping motion should be used when cleaning either floors or horizontal surfaces to prevent the creation of aerosols or splashing. Cleaning methods that might aerosolize infectious material, such as the use of compressed air, must not be used.
- xiv. Leave the disinfected area and avoid using the area the next day.
- xv. Biohazard bags should be properly disposed⁴ upon the completion of the disinfection work.

D. Precautions to take after completing the clean-up and disinfection of the affected area

- i. Cleaning crews should wash their hands with soap and water immediately after removing the PPE and when cleaning and disinfection work is completed.
- ii. Discard all used PPEs in a double-bagged biohazard bag securely sealed and labeled.
- iii. The crew should be aware of the symptoms and should report to their occupational health service if they develop symptoms.

E. List of cleaning companies that can carry out disinfection works

If you are not able to adhere to the suggested disinfection methods above, you may wish to consider engaging the following cleaning company to carry out disinfection works:

Chye Thiam Maintenance Pte Ltd	Hotline: 6281 8866
COSEM Safety and Security Services Pte Ltd	Email: Khairul@cosem.org.sg Website: http://www.cosem.org.sg/ Mobile: 8298 8242

Released on 25 January 2020

⁴ Refer to the list of licensed biohazard waste collectors: <https://www.nea.gov.sg/our-services/pollution-control/hazardous-waste/toxic-waste-control>