



भारत सरकार/ GOVERNMENT OF INDIA  
पोत परिवहन मंत्रालय / MINISTRY OF SHIPPING  
नौवहन महानिदेशालय, मुंबई  
DIRECTORATE GENERAL OF SHIPPING, MUMBAI

**F. No. 7-NT(72)/2014**

**Date: 20.03.2020**

**DGS Order No. 03 of 2020**

**Subject: Instructions on dealing with novel coronavirus (COVID-19) - reg.**

1. The Directorate has issued instructions on dealing with novel coronavirus (COVID-19) vide DGS Order No. 02 of 2020 dated 16.03.2020 and maritime advisories vide M.S. Notice 02 of 2020 dated 28.01.2020, M.S. Notice 03 of 2020 dated 04.02.2020 & M.S. Notice 06 of 2020 dated 03.03.2020 (F. No. 7-NT(72)/2014).
2. In continuation to the earlier instructions issued by the Directorate on dealing with novel coronavirus (COVID-19), the following shall be complied by all stakeholders:
  - 2.1 As per the Ministry of External Affairs (MEA), Government of India travel advisories dated 11.03.2020 & 16.03.2020 (available in link: <https://mea.gov.in/covid-19-updates.htm>), travel of passenger to India from the infected countries are prohibited with effect from 18.03.2020. Hence, seafarers are advised to refrain from 'signing off' from ships from the infected countries. Also, shipping companies and Recruitment Placement & Service (RPS) providers are instructed to not to 'sign-off' seafarers from the countries included in the travel restrictions by MEA. These instructions are temporary measures and shall be in force till 31.03.2020 and will be reviewed subsequently.
  - 2.2 Seafarers may also be prepared that on their arrival in India, they may have to undergo compulsive quarantine for specific period as deemed necessary by the concerned authority.
  - 2.3 Maritime Training Institutes (MTI's) are additionally instructed to comply with precautionary measures and instructions issued by the respective State governments including the closure of the MTI if instructed so.
3. Considering the gravity of the situation, the Directorate has prepared a guidance document for shipping industry to help combat the spread of the Coronavirus (COVID-19). The document contains the advice on managing port entry restrictions, practical protective measures against COVID-19 for seafarers, pre-boarding screening, education and what to do in suspected cases of infection, hygiene measures for seafarers on ships, managing high risk exposure, case handling, isolation and cleaning, disinfection and waste Management etc.

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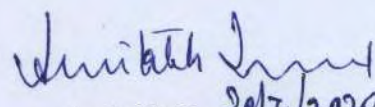
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All the stakeholders are instructed to strictly comply with the interim guidance document for shipping & seafarers for prevention & managing outbreak of COVID-19. (Annexure - 1)

4. Also, all stakeholders including Indian shipping companies, RPS Service providers, MTI's, seafarers are required to comply with the instructions of the Government. All stakeholders are also once again advised to continue to closely monitor the following websites / links on regular basis and be guided with the updated guidelines issued from time to time:

- a. Ministry of Health and Family Welfare (MoHFW), GoI: <https://www.mohfw.gov.in/>
- b. Ministry of Shipping (MoS), GoI: <http://shipmin.gov.in/>
- c. Ministry of External Affairs (MEA), GoI: <https://mea.gov.in/covid-19-updates.htm>
- d. Directorate General of Shipping (DGS), GoI: <https://www.dgshipping.gov.in/>
- e. WHO: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
- f. IMO: <http://www.imo.org/en/MediaCentre/HotTopics/Pages/Coronavirus.aspx>

  
Amitabh Kumar  
20/3/2020  
Director General of Shipping

ANNEXURE 1

Coronavirus Disease 2019 (COVID-19)

Interim guidance for shipping & seafarers  
for prevention & managing outbreak of  
COVID-19

(Provisionally valid till 31.03.2020)

## **DISCLAIMER**

1. The content provided in this document is for information and educational purposes only and is not a substitute for professional advice or guarantee of outcome. Information is gathered and shared from reputable sources; however, DG Shipping is not responsible for errors or omissions in reporting or explanation.
2. No individuals, should use the information, resources or tools contained within to self-diagnosis or self-treat any health related condition. DG Shipping gives no assurance or warrant regarding accuracy, timelines or applicability of the content.
3. All pictures / photos used in the guidance document are taken from the internet.

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**The content of this guidance has been derived and compiled from Ministry of Health and Family Welfare (MoHFW), Ministry of Shipping (MoS), International Maritime Organization (IMO), World Health Organisation (WHO), International Chamber of Shipping (ICS) & Centre of Disease Control (CDC).**

## **1. INTRODUCTION**

### **1.1 OVERVIEW**

World Health Organisation (WHO) China country office on 31.12.2019 has informed of cases of pneumonia of unknown cause detected in Wuhan City, Hubei Province of China.

The Chinese authorities identified a new type of coronavirus, which was isolated on 07.01.2020 by laboratory testing. It is a new strain that had not previously been detected in humans before the outbreak was reported in Wuhan, China.

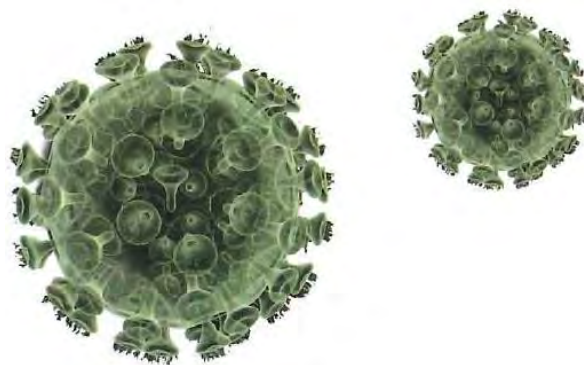
This “novel” coronavirus is now officially named as Coronavirus Disease 2019 (COVID-19). It is from the family of viruses that cause illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS - CoV) and Severe Acute Respiratory Syndrome (SARS - CoV).

WHO has been assessing this outbreak around the clock. The Novel Coronavirus (COVID-19) cases have been confirmed in large number of countries due to which the World Health Organisation (WHO) on 11.03.2020 has characterized COVID-19 as pandemic.

## **2. CORONAVIRUS**

### **2.1 WHAT ARE CORONAVIRUS**

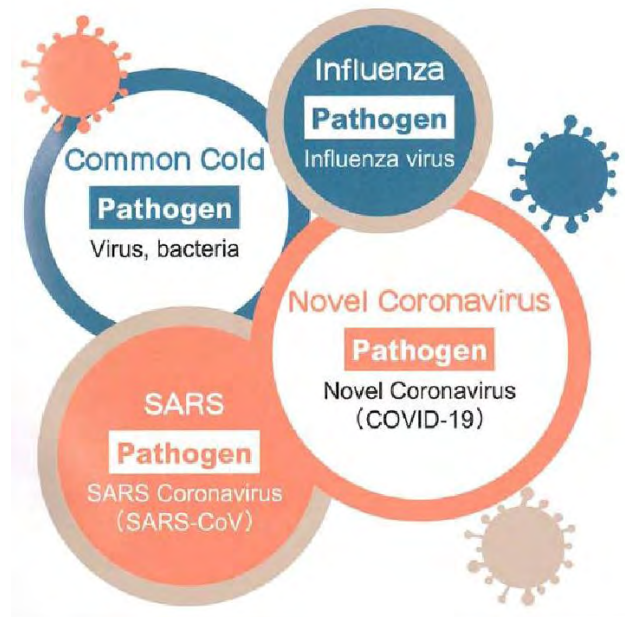
Coronaviruses (CoV) derive their name from the fact that under electron microscopic examination, each virion is surrounded by the corona. Coronaviruses (CoV) are a large family of viruses that cause illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS - CoV) and Severe Acute Respiratory Syndrome (SARS -CoV). So far, seven types of coronavirus are infecting people.





## 2.2 WHAT IS NOVEL CORONAVIRUS

Novel coronavirus (nCoV) is a new strain that has not been previously identified in humans. This “novel” coronavirus is now officially named as Coronavirus Disease 2019 (COVID-19). COVID-19 belongs to the same big family. Evolution analysis shows that they are under different subgroup branches with different genetic sequences.



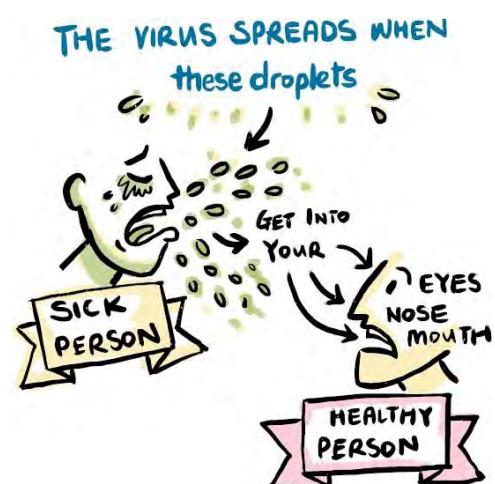
## 3. TRANSMISSION

### 3.1 DIRECT TRANSMISSION

#### Person-to-Person

COVID-19 causes respiratory disease and is mainly transmitted in person-to-person. It can happen in the following circumstances:

- Between people who are in close contact with one another (within about 6 feet)
- Through respiratory droplets produced when an infected person coughs or sneezes
- These droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs

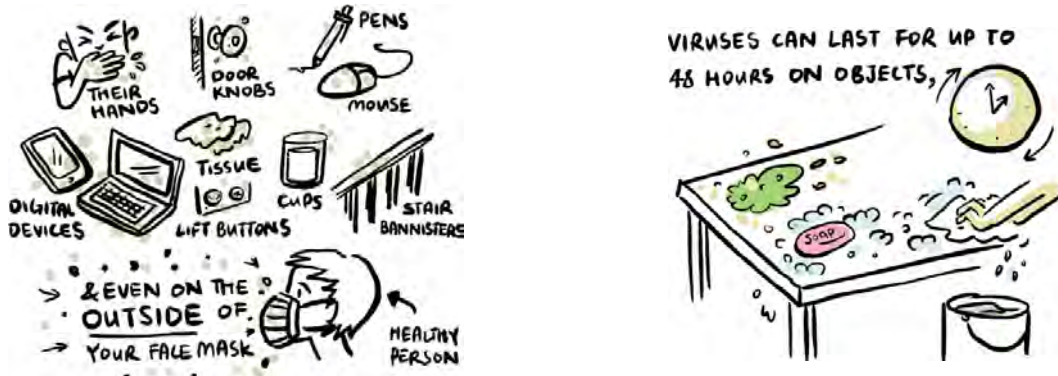




## 3.2 INDIRECT TRANSMISSION

### Contact with Infected Surfaces or Objects

A person can possibly get COVID-19 by touching a surface or an object (e.g. doorknobs and table) that has the virus on it and then touching his own mouth, nose, or eyes.



## 4. SIGNS & SYMPTOMS

The signs and symptoms of COVID-19 are similar to the symptoms of ordinary flu. A study of where a patient has been or whom the patient has had contact with will give clues as to whether the patient may have been exposed to COVID-19.

### 4.1 PHYSICAL SIGNS & SYMPTOMS FOR COVID-19

Reported illnesses have ranged from mild symptoms to severe illness and death for confirmed coronavirus disease 2019 (COVID-19) cases.

The following symptoms may appear 2-14 days after exposure:

- Fever
- Cough
- Shortness of breath



<https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>

## 4.2 VULNERABILITY

According to WHO, people of all ages can be infected by COVID-19. The following groups of people appear to be more vulnerable to becoming severely ill with the virus.



The elderly



People with pre-existing medical conditions such as asthma, diabetes and heart disease

## 4.3 PEOPLE AT HIGH RISK



Close Contacts



Health care professional

Close contact is a person who, for example, has stayed in the same cabin, participated in common activities, dined together, a cabin steward, or someone who has a contact within 1 meter or was in the closed environment with the suspect/confirmed COVID-19 case.

#### 4.4 INCUBATION PERIOD

Transmission may occur during the incubation period before a person shows signs of sickness. The incubation period of the virus is the time between the exposure and the display of symptoms. Current information suggests that the incubation period ranges from 1 to 12.5 days (with median estimates of 5 to 6 days), but can be as long as 14 days.

#### 4.5 SYMPTOMS FOR CORONAVIRUS FAMILY

	COVID-19	SARS	Influenza	Common Cough
<b>Clinical Manifestations</b>	Excessive fatigue; coughs; shortness of breaths; coughing up yellow or green mucus; chest X-ray shows scattered opacities in the lung	Coughs; breathing difficulties; fatigue; headache and diarrhea; fever	Running nose; sneezing; coughs; high temperature; muscle pain; diarrhea; vomiting	Nasal congestion; coughs; sore throat; throat discomfort; sneezing
<b>Incubation Period</b>	7-14 days	2-7 days	1-4 days	1 day
<b>Ways of Transmission</b>	Short distance droplets spread; close contact; contacts with animals	Short distance droplets spread; close contact	Coughs; sneezing and droplets spread; contact with secretions of an infected person	Droplets spread; contact with infected nasal secretions
<b>Preventive Measures</b>	Regular and frequent hand washing; check body temperature; use alcohol-based disinfectant; wear a surgical mask; enhance airflow; avoid contacts with animals or eat game meat	Cover mouth and nose when sneezing and coughing; regular and frequent hand washing; do not touch nose and mouth; wear a surgical mask; enhance airflow	Vaccination (flu shot); keep hands clean; wear a surgical mask; improve airflow	Regular hand wash, wear a surgical mask, boost your immune system

## 5. OUTBREAK MANAGEMENT PLAN FOR SHIPS

Indian ships sailing on an international voyage are advised to develop a written plan for disease outbreak management that covers the definitions of a suspected case of COVID-19 disease, the definition of close contacts and an isolation plan.

The outbreak management plan should include descriptions of the following:

- The location or locations where suspected cases will be isolated individually until disembarkation and transfer to a healthcare facility
- How the necessary communications between departments (for example, medical, housekeeping, laundry, room service) about persons in isolation will be managed
- The clinical management of suspected cases while they remain on board
- Cleaning and disinfection procedures for potentially contaminated areas, including the isolation cabins or areas
- How close contacts of the suspected case will be managed
- Procedures to collect Passenger / Crew Locator Forms (PLF)
- How food service and utensils, waste management services and laundry will be provided to the isolated travellers

Staff on board should have knowledge of the outbreak management plan and should implement it as required.

## 6. PREVENTIVE MEASURES

### 6.1 GENERAL

The best way to prevent illness is to avoid being exposed to it. WHO recommends the following actions to prevent the spread of respiratory diseases:



- Wash hand frequently
- Maintain Social Distance of at least 1 meter (3 feet) distance between yourself and anyone who is coughing or sneezing
- Avoid touching eyes, nose, and mouth
- Practice respiratory hygiene
- Seek medical care early if you have a fever, cough, and difficulty breathing
- Practice food safety

**Protect yourself and others from getting sick**  
**Wash your hands**

- after coughing or sneezing
- when caring for the sick
- before, during and after you prepare food
- before eating
- after toilet use
- when hands are visibly dirty
- after handling animals or animal waste




**Protect others from getting sick**

When coughing and sneezing **cover mouth and nose with flexed elbow or tissue**



**Throw tissue into closed bin immediately after use**



**Clean hands with alcohol-based hand rub or soap and water after coughing or sneezing and when caring for the sick**




**Protect others from getting sick**

**Avoid close contact when you are experiencing cough and fever**



**Avoid spitting in public**



**If you have fever, cough and difficulty breathing seek medical care early and share previous travel history with your health care provider**




**Practise food safety**

Even in areas experiencing outbreaks, meat products can be safely consumed if these items are **cooked thoroughly and properly handled** during food preparation.




**Practise food safety**

Use different chopping boards and knives for raw meat and cooked foods





**Wash your hands between handling raw and cooked food.**




**Practise food safety**

**Sick animals and animals that have died of diseases should not be eaten**

**6.2 GUIDANCE FOR WASHING HANDS**

Hand hygiene is the most important measure of reducing the spread of COVID-19. Crew members should perform hand hygiene properly and frequently, especially before touching eyes, nose, and mouth. When hands are visibly soiled or likely contaminated with blood and body fluid or after the contact with infected persons, it is advised to clean hands with liquid soap and water.



Follow five easy steps below –



Step 1 – Wet your hands with clean, running water



Step 2 – Lather your hands by rubbing them together with the soap. Be sure to lather the backs of your hands, between your fingers, and under your nails.





Step 3 – Scrub your hands for at least 20 seconds.



Step 4 – Rinse your hands well under clean, running water



Step 5 – Dry your hands using a clean towel.

### 6.3 GUIDANCE FOR SANITIZING HANDS

Hand sanitizer is a liquid generally used to decrease infectious agents on the hands. If hand washing facilities are not available, or when hands are not visibly soiled, perform hand hygiene with 70% to 80% alcohol-based hand sanitizer (e.g., isopropyl alcohol and ethyl alcohol). It is an effective alternative to prevent cross-transmission of infectious diseases via hands.

The hand-rubbing technique of using alcohol-based hand sanitizers is similar to hand washing.



Step 1 – Use a sufficient amount, around 3 to 5 ml of alcohol-based hand sanitizer to cover all surfaces of your hands.



Step 2 – Rub your palms, then back of hands, finger webs, back of fingers, thumbs, fingertips, and then wrists.



Step 3 – Rub for at least 20 seconds until your hands are dry.



Step 4 – Let the alcohol dry on your hands; do not wipe it off with a paper towel.

## Point to note:

- Check the expiry date of alcohol-based hand sanitizer before using
- Hand sanitizers are flammable



## 7. PERSONAL PROTECTIVE EQUIPMENT

### 7.1 GENERAL

The vessel must maintain below Personal Protective Equipment (PPE) when calling infected areas.

- Disposable surgical masks
- Disposable gloves
- Eye Protection
- Face Shields
- Medical Gown
- Ray Thermometer

### 7.2 DISPOSABLE SURGICAL MASKS

Face mask provides a physical barrier to fluids and large particle droplets. Surgical mask is a type of face mask commonly used. When used properly, surgical masks can prevent infections transmitted by respiratory droplets.





Most surgical masks adopt a three-layer design which includes an outer fluid- repelling layer, a middle layer serves as a barrier to germs, and an inner moisture- absorbing layer. Mask without the above functions is not recommended as it cannot provide adequate protection against infectious diseases transmitted by respiratory droplets.

Crew members should wear surgical masks when they have respiratory infection; when taking care of persons with respiratory infection in order to reduce the spread of infection. Please note the following points when wearing a mask.

- Choose the appropriate mask size
- Perform hand hygiene before putting on a surgical mask
- The surgical mask should fit snugly over the face

### 7.3 DISPOSABLE GLOVES

Disposable safety gloves are worn to prevent cross-contamination between the infected person(s) / object(s) and people who perform cleaning/people who enter the medical care area. Change gloves if they are torn or contaminated.

When finished, place used gloves in a biohazard trash bag. Wash your hands immediately after handling these items.



### 7.4 GOGGLES



Goggles are forms of protective eyewear that usually enclose or protect the area surrounding the eye to prevent particulates, water, or chemicals from striking the eyes.

Disinfect used goggles according to the manufacturer's instructions after use.

This is required when handling sick persons or cleaning where infected people were residing.

### 7.5 FACE SHIELD

Face shield that covers the front and sides of the face provides adequate protection against the droplets

This is required when handling sick persons or cleaning where infected people were residing.



## 7.6 RAY THERMOMETER



An infrared thermometer is a thermometer that infers temperature from a portion of the thermal radiation, sometimes called black-body radiation emitted by the object being measured. This is required to measure the body temperature of the visitors and crew members.

## 7.7 MEDICAL GOWN

Nonsterile, disposable patient isolation gowns, which are used for routine patient care in healthcare settings, are appropriate for use by patients and medical care providers with suspected or confirmed COVID-19 cases. For gowns, it is essential to have sufficient overlap of the fabric so that it wraps around the body to cover the back (ensuring that if the wearer squats or sits down, the gown still protects the back area of the body).



**Note: The PPE, as depicted in the picture, is minimum PPE required for health care professionals when handling sick persons or cleaning areas where infected people were residing.**

## 8. CLEANING AGENTS & DISINFECTANTS

### 8.1 GENERAL

- Hand wash
- Hand sanitizers
- Cleaning disinfectant (bleach)
- Rubbing alcohol
- Other disinfectants

### 8.2 HAND WASH

Hand hygiene is the most important measure of reducing the spread of COVID-19. Crew members should perform hand hygiene properly and frequently, especially before touching eyes, nose and mouth. When hands are visibly soiled or likely contaminated with blood and body fluid or after the contact with infected persons, it is advised to clean hands with liquid soap and water.



### 8.3 HAND SANITIZERS



Hand sanitizer is a liquid generally used to decrease infectious agents on the hands. If hand washing facilities are not available, or when hands are not visibly soiled, performing hand hygiene with 70% to 80% alcohol-based hand sanitizer (e.g. isopropyl alcohol and ethyl alcohol) is an effective alternative to prevent cross transmission of infectious diseases via hands.

## 8.4 BLEACH

Bleach is a strong and effective disinfectant. Its active ingredient, sodium hypochlorite, denatures protein in micro-organisms and is therefore effective in killing bacteria, fungi, and viruses. Household bleach works quickly and is widely available at a low cost. Diluted household bleach is thus recommended for the disinfection of the environment.



### Application

- Dilute and use bleach in a well-ventilated area.
- Put on appropriate Personal Protective Equipment (e.g., mask, gloves, safety goggles, and plastic apron) when diluting or using bleach as it irritates mucous membranes, the skin, and the airway.
- Mix bleach with cold water as hot water decomposes the active ingredient of bleach and renders it ineffective.
- Bleach containing 5.25% sodium hypochlorite. Properly dilute the bleach to achieve appropriate concentration as follows:
  - 1:99 diluted household bleach (mixing 1 part of 5.25% bleach with 99 pieces of water) is used for general household cleaning and disinfection.
  - 1:49 diluted household bleach (mixing 1 part of 5.25% bleach with 49 parts of water) is used for surfaces or articles contaminated with vomitus, excreta and secretions.
  - 1:4 diluted household bleach (mixing 1 part of 5.25% bleach with 4 parts of water) is used for surfaces or articles contaminated with blood spillage.
- Make adjustments to the amount of bleach added if its concentration of sodium hypochlorite is above or below 5.25%.
  - Calculation: Multiplier of the amount of bleach added = 5.25 concentration of sodium hypochlorite in bleach
  - For example, when diluting a bleach containing only 5% sodium hypochlorite, the multiplier is  $5.25 / 5 = 1.05$ . That means  $10\text{ml} \times 1.05 = 10.5\text{ml}$  of bleach should be used when preparing a bleach solution.
- Use a tablespoon or measuring cup for accurate measurement of the amount of bleach added.
- Clean all surfaces, frequently touched surfaces and floors with bleach.
- Leaving the bleach solution for a contact time of at least 10 minutes is recommended.

### Point to note:

- ❑ Avoid using bleach on metals, wool, nylon, silk, dyed fabric and painted surfaces.
- ❑ Avoid touching the eyes. If bleach gets into the eyes, immediately rinse with water for at least 15 minutes and consult a doctor.
- ❑ Do not use bleach together with other household detergents as this reduces its effectiveness in disinfection and causes dangerous chemical reactions. For example, a toxic gas is produced when bleach is mixed with acidic detergents such as those used for toilet cleaning. This can result in accidents and injuries. If necessary, use detergents first and rinse thoroughly with water before using bleach for disinfection.
- ❑ Undiluted bleach liberates a toxic gas when exposed to sunlight, thus store in a cool, shaded place and out of reach of children.
- ❑ Sodium hypochlorite decomposes with time. To ensure its effectiveness, purchase recently produced bleach and avoid over-stocking.
- ❑ For effective disinfection, use diluted bleach within 24 hours after preparation as decomposition increases with time if left unused.

## 8.5 RUBBING ALCOHOL

- ❑ Alcohol (e.g., isopropyl 70% and ethyl alcohol 60%) can be used to wipe down surfaces where the use of bleach is not suitable e.g. metal.



## 8.6 THE USE OF OTHER DISINFECTANTS

- ❑ 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.



### BEFORE CLEANING

- 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
- Keep windows open for ventilation as disinfectants/bleach will be used for cleaning
- Cleaning crew member(s) should be attired in suitable Personal Protective Equipment (PPE)

### DURING CLEANING

- Mop floor with bleach (dilute 1 part bleach in 50 parts water, or 1000 ppm)
- Wipe all frequently touched areas at least daily with chemical disinfectants according to manufacturer's instructions, bleach solution or alcohol (e.g., isopropyl 70% or ethyl alcohol 70%) for areas where the use of bleach is not suitable. Allow air to dry as well
  - Light controls
  - Armrests
  - Doorknobs / handrails
  - Keyboards / lavatory surfaces
  - Lift buttons
  - Seatbacks
  - Tables
- Wipe down walls up to 3 meters in height as well as blinds with bleach
- Remove curtains/fabrics/quilts for washing with the preferably hot water cycle. For hot-water laundry cycles, wash with detergent or disinfectant in the 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
- 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
- Leave the disinfected area and avoid using the area the next day
- Gloves should be removed and discarded if they become soiled or damaged. A new pair of gloves should be worn to continue cleaning.



## AFTER CLEANING

- ❑ 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
- ❑ Disinfect used goggles according to manufacturer's instructions after use
- ❑ 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
- ❑ Discard equipment made of cloths / absorbent materials into biohazard bags after cleaning each area to prevent cross contamination
  - Mop head
  - Wiping cloths
- ❑ Discard all used PPEs in a double-bagged biohazard bag securely sealed and labeled
- ❑ Wear a new pair of gloves and fasten the double-bagged biohazard bag with a cable tie
- ❑ Wash hands with alcohol-based gels or liquids rather than soap to disinfect the hands immediately
  - Before / after every contact with an infected person
  - After the removal of PPE
  - Upon the completion of cleaning





## 9. GUIDANCE FOR SHIPS

### 9.1 REQUEST FOR INFORMATION PRIOR ARRIVAL

- Request the agents / terminal to get the latest information in port concerning COVID-19
- Ensure a copy of WHO publication - “Handbook for the management of public health events” is available on the vessel



### 9.2 PREPARATION BEFORE ARRIVAL

#### RISK ASSESSMENT

- Carry out a risk assessment to check if any unidentified hazards may occur, and all controls are in place

#### STORES / SPARES / PROVISIONS

- The procurement of stores and provisions in high-risk areas is prohibited. Procure all stores, including the cleaning agents and PPE required for COVID-19 before arriving high-risk areas
- In case of any emergency spares or stores, please liaise with the vessel manager for procurement
- Considering the present situation of the pandemic at high-risk ports, the vessel might have an extended stay. Procure sufficient provisions and freshwater before calling high-risk ports

#### CREW CHANGE

- Crew change is prohibited from infected areas (as per MoHFW & MEA advisory on travel restrictions)
- Considering the emergency situation, flag states would issue necessary dispensation for the crew relief

#### SHORE LEAVE

- All seafarers need to avoid availing shore leave in infected regions and consider the risks involved before desiring to go ashore in other regions. Availing shore leave during the pandemic may need to be avoided and used only in exigencies with necessary precautions.

### 9.3 SHIP SHORE INTERFACE

- The crew members must don all PPE as required, including mask before the first interface with the port is made
- Pilot: Check the temperature of the pilot with a ray gun when he boards. If the pilot is not wearing any PPE, offer the same to the pilot. The access to the bridge, if possible, should be provided from outside the accommodation
- Ensure the social distance is maintained from the pilot. In case of any food or beverage is given to pilot, the same should preferably be provided in disposable utensils if feasible
- Establish a sanitation station at the gangway. Provide alternative arrangements for handwash, sanitizers if possible. Check the temperature of all visitors boarding the vessel. In case any visitor shows symptoms of the disease, prohibit boarding
- The vessel can use a Pre-boarding questionnaire for suspected visitors
- Designated one room for ship/shore to interface with agent, authorities, stevedores, or any other shore personnel. Do not allow access to different areas on the vessel
- Clean the above-designated spaces at regular intervals (e.g., every 4 hours) as per the cleaning guidelines
- Do not allow shore personnel to bring food items on board.



### 9.4 GALLEY HYGIENE & SAFETY

- Maintain a high level of cleanliness in the galley
- Increase the frequency of cleaning the galley and stores
- Chief Cook and Messman must not interact with shore personnel unless absolutely necessary
- Do not allow shipboard or shore personnel to enter galley if not required
- Follow hygiene and food safety guidelines in the galley as per health and safety manual
- If possible, keep the utensils for each crew member separate. Do not allow the sharing of food, utensils. In case it is required to provide food for shore personnel, use disposable utensils

## 9.5 GARBAGE AREA

- Ensure all garbage bins in the galley and accommodation area are well covered
- Wear PPE as required when handling garbage
- Clean and disinfect garbage spaces daily

## 9.6 ACCOMMODATION & ENGINE ROOM

- Maintain a log of all crew members on board twice daily as per the below format.

Record of Symptoms for CORONAVIRUS					
Vessel Name				Date	
S.no	Name	Rank	Body Temperature	Look for below symptoms. If the crew member show any symptoms, write comments , else write no symptoms )	
				Fever / Headache	Cough / Sore Throat

- Increase the frequency of cleaning in accommodation and engine room
- Disinfect the accommodation as per the cleaning guidelines frequently.
- Do not allow entry of visitors in the engine room
- Do not carry out maintenance on the sewage and greywater system.
- Wear PPE when dosing the sewage treatment plant.

## 9.7 AFTER DEPARTURE

- Carry out a thorough cleaning and disinfection of all areas onboard.
- Continue maintaining the coronavirus symptom log for all crew members for at least 21 days or as per specified by the requirements of next port of call

## 9.8 ACTION TO BE TAKEN IN CASE OF SUSPECTED INFECTION ON BOARD DEPARTURE

Early detection, prevention, and control of COVID-19 on the ship is important to protect the health of other crewmembers and to avoid transmission of the virus. Arrangements must be made to disembark the infected crew member as soon as possible who are suspected of having COVID-19.

Following cases represents a suspect

A patient with acute respiratory illness (fever and at least one sign/symptom of respiratory disease (e.g., cough, shortness of breath), and with no other set of causes that fully explains the clinical presentation and a history of travel to or residence in a country/ area or territory reporting local transmission of (COVID-19) during the 14 days prior to the onset of the symptoms.

Or

A patient with any acute respiratory illness and having been in contact with a confirmed or suspected COVID-19 case during the 14 days before the onset of the symptoms.

Or

A patient with a severe acute respiratory infection (fever and at least one sign/symptom of respiratory disease, e.g., cough, shortness of breath, and requiring hospitalization and with no other set of causes that fully explain the symptoms.

Once the suspect case has been identified,

- Establish contact with CIRM / Medical Service Provider as soon as possible
- Isolate the crew member in the hospital with possible symptoms of COVID-19 to minimize the transmission of this virus. The sick patient must not leave the hospital or the confined area
- Put air condition on fresh air mode (though it has not been established that COVID-19 can spread through air)
- Ask the sick person to wear a facemask (a surgical mask, not N95) as soon as they are identified
- Maintain a distance of 6 feet from the sick person while interviewing, escorting, or providing other assistance
- Keep interactions with sick people as brief as possible. Limit the number of people who interact with sick people. A single person must give care and meals to an infected person
- Respiratory hygiene should be practiced by all, especially ill persons, at all times. Respiratory health refers to covering the mouth and nose during coughing or sneezing using medical masks, cloth masks, tissues, or flexed elbow, followed by hand hygiene. Discard materials used to cover the mouth or nose or clean them appropriately after use (e.g., wash handkerchiefs using regular soap or detergent and water)
- Wear a medical mask fitted tightly to the face when in the same room with the ill person. Do not touch masks during use. If the mask gets wet or dirty with secretions, change it immediately. Discard the mask after use and perform hand hygiene after removal of the mask
- Wear all other PPE when providing care for the sick person or when cleaning the areas where the sick person has resided
- Perform hand hygiene following all contact with ill persons or their immediate environment. Hand hygiene should also be performed before and after preparing food, before eating, after

using the toilet, and whenever hands look dirty. If hands are not visibly soiled, alcohol-based hand rub can be used. Perform hand hygiene using soap and water when hands are visibly soiled. Avoid direct contact with body fluids, particularly oral or respiratory secretions, and stool. Use disposable gloves to provide oral or respiratory care and when handling stool, urine, and waste

- Avoid other types of possible exposure to ill persons or contaminated items in their immediate environment (e.g., avoid sharing toothbrushes, cigarettes, eating utensils, dishes, drinks, towels, washcloths, or bed linen). Eating utensils and meals should be cleaned with either soap or detergent and water after use and may be reused instead of being discarded
- Clean and disinfect bathroom and toilet surfaces at least once daily with a regular household disinfectant containing a diluted bleach solution (1-part bleach to 99 parts water)
- Clean and disinfect frequently touched surfaces such as bedside tables, bed frames, and other bedroom furniture daily with a regular household disinfectant containing a diluted bleach solution (1-part bleach to 99 parts water)
- Clean clothes, bedclothes, bath and hand towels, etc. of ill persons using regular laundry soap and water or machine wash at 60 – 90°C with common household detergent. Dry it thoroughly. Place contaminated linen into a laundry bag. Do not shake soiled laundry and avoid direct contact with the skin and clothes with the contaminated materials
- Gloves, tissues, masks, and other waste generated by ill persons or in the care of ill persons should be placed in a lined container in the ill person's room before disposal with other household waste
- All crewmembers should be considered close contact after a case on board. Their health should be monitored for 14 days from the last day of possible contact. Seek immediate medical attention if they develop any symptoms, particularly fever, respiratory symptoms such as coughing or shortness of breath, or diarrhea
- During disembarkation, ensure minimize exposure to other crew members
- The vessel must make a detailed report to the competent authority at the next port of call
- The vessel needs to be thoroughly cleaned after the disembarkation of the suspected case