

Sanitary Guide for Cruise Ships

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National Health Surveillance Agency - Anvisa

2023

Sanitary Guide for Cruise Ships

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This Guide expresses Anvisa's understanding of best practices in relation to procedures, routines and methods considered appropriate to comply with technical or administrative requirements required by the Agency's legislative and regulatory frameworks.¹

This is a non-normative regulatory instrument, of a recommendatory and non-binding nature, and it is therefore possible to use alternative approaches to the propositions set out here, as long as they are compatible with the requirements related to the specific case. Failure to comply with the content of this document does not constitute a health violation, nor does it constitute a reason for rejecting petitions, as long as the requirements required by law are met.

[1Ordinance No. 162, of March 12, 2021](#), which provides guidelines and procedures for improving regulatory quality at the National Health Surveillance Agency (Anvisa).

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SCOPE

This document establishes guidelines for port authorities, maritime agencies and professionals responsible for health and safety on board passenger ships that circulate in Brazilian jurisdictional waters to minimize potential health risk factors and deal with suspected or confirmed occurrence of diseases communicable to board. Furthermore, these guidelines intend to establish minimum action and response procedures.

In this way, good practices regarding food production, solid waste and liquid waste management, quality control of drinking water, air-conditioned environments and vectors are presented. Measures for reporting suspected cases to Brazilian authorities, procedures during outbreaks or identification of suspected cases on board are also described, including everything from the necessary cleaning and disinfection procedures to the epidemiological surveillance measures that must be taken. The use of the term “must” or “must”, in the context of the guide, does not necessarily equate to a legal obligation if it is not included in specific Regulations, but it reflects the strong recommendation of practice to guarantee the high sanitary standards necessary to avoid cases and control disease outbreaks in the context of cruise ships.

The guidelines presented in this guide have been updated over the years, considering that the original document was prepared in 2009. Since then, Anvisa has implemented the Cruise Inspection Program each season, obtaining more mature and consistent data from the surveillance of these vessels and also adding to the knowledge acquired from the health events faced in these years, especially the Covid-19 pandemic.

These guidelines may be modified at any time by decision of the Brazilian health authorities or according to guidelines from the World Health Organization, or when atypical situations occur in certain events on board that require new or adapted measures. In the aforementioned cases, Anvisa will publish a document with updated guidelines.

ATTENTION: THE GUIDELINES PROVIDED IN THIS GUIDE DO NOT EXEMPT SHIPS FROM COMPLYING WITH REQUIREMENTS PROVIDED IN BRAZILIAN LAWS AND TECHNICAL REGULATIONS.

1. INTRODUCTION

Anvisa's Mission is "To protect and promote the health of the population, through intervention in the risks arising from the production and use of products and services subject to health surveillance, in action coordinated and integrated within the scope of the Unified Health System."

The police power, as an attribute of the State, has the regulatory function of individual and collective rights to guarantee the absolute predominance of the public interest over private interests. It is necessary within the law and, therefore, its exercise is limited to Anvisa's mission.

In this sense, Anvisa advises that all crew and officers on board:

- Respect and accompany, when requested, the health authorities during health inspections of areas or services under their responsibility, providing all facilities for the proper execution of the inspection.

Ensure that the health authority can photograph, record, analyze and collect samples in all areas or services inspected.

- Do not obstruct, impede, hinder or interfere with inspections and other activities of health authorities.

Please note: *it is important that the crew member(s) assigned to accompany the inspectors have full knowledge of processes/controls of the areas/services inspected and be able to respond to doubts and questions from health authorities. Information provided by these crew members will be considered official by authorities.*

1.1 Transit and entry of vessels into national ports

According to current regulations, to navigate in the national territory, river, lake and sea vessels must be in satisfactory hygienic and sanitary conditions and present to the health authority when making the arrival notification, at the time of the vessel's entry into a Port of Health Control, the following documents:

- Maritime Declaration of Health, signed by the captain or an officer serving on his behalf designated;
- Vessel Health Certificate (CSE), signed by the captain or crew officer designated by him;
- List of travelers, with respective locations and dates of embarkation and disembarkation; It is
- Copy of the Onboard Medical Book containing records of health events on board for the last thirty days.

Other documents may be requested for the cruise ship when entering or circulating in national territory, such as:

- Medical Records containing a complete description of all clinical occurrences, deaths and accidents suffered by crew or passengers during the voyage, as well as a description of the precautions that were adopted to ensure the health of patients and sanitary conditions on board the ship;
- Proof of companies that removed solid waste in previous ports, or presentation of the record of releases of solid waste at sea,

in compliance with current environmental legislation (MARPOL). In any case, if there are disagreements, an adequate justification must be presented;

- Maintenance records of air conditioning/ventilation equipment, in accordance with current Brazilian legislation;
- List of narcotics or psychotropic drugs stored on board the ship;
- Information about ballast water (Ballast Water Form);
- List of stock of products used to treat water for human consumption;
- Records of drinking water supply controls, with information on the locations of water quality capture and control report;
- Records of the last cleaning and disinfection procedures of the vessel's drinking water reservoirs containing information about the product used, concentration and contact time;
- Information regarding the drinking water production system on board the vessel, as well as the type of control carried out to guarantee its quality;
- Pest Control Plan containing monitoring methods, frequency and records updated and responsible for the activity on board;
- International Sewage Pollution Prevention Certificate; It is
- Manual of Good Food Manufacturing Practices, Hazard Analysis and Critical Control Points - HACCP and updated records relating to health safety and food quality.

In the face of public health events, the Brazilian government may determine specific and temporary criteria and/or restrictions for boarding cruise ships transiting Brazil and disembarking in national territory.

Cruise companies are advised to officially inform the Brazilian health authority of the schedule of their ships that will transit Brazilian ports during the season. To facilitate Anvisa's schedule of inspections and inspection and monitoring activities, it is requested that the report be carried out at least 30 days before the scheduled date of the ship's first docking via email navesdecruzeiro@anvisa.gov.br.

Attention: It is important that changes in stopovers and vessels scheduled for transit in Brazil are communicated through the same channel throughout the cruise season.

1.3 Free Practice

Free Practice is the authorization to be issued by the competent federal health surveillance body, for a vessel coming from abroad, to embark and disembark travelers, cargo or supplies, in the first port in the national territory. Therefore, according to current legislation, loading and unloading of goods and embarkation/disembarkation of passengers at the first port can only occur if the vessel has a valid Certificate of Free Practice (CLP).

Ships coming from abroad that are not in possession of a valid CLP when entering the first port must wait with the yellow flag raised, or its luminous equivalent, provided for in the International Code of Signals of the International Maritime Organization (IMO).

Attention: The issuance of the CLP may be subject to criteria or requests for additional information in response to a public health event. Likewise, the context of the health situation on board may determine the suspension of a vessel's CLP.

1.4 Objectives

This Guide aims to:

- Recommend procedures for monitoring suspected cases of communicable diseases on board cruise ships;
- Recommend health measures for timely response to health events on board ships cruise and Provide guidance on best sanitary practices on cruise ships.

2. BASE LEGAL

Law No. 6,259, of October 30, 1975. Provides for the organization of Epidemiological Surveillance actions, the National Immunization Program, establishes rules regarding the compulsory notification of diseases, and provides other measures.

Law No. 6,437, of August 20, 1977. Configures infractions of federal health legislation, establishes the respective sanctions, and provides other measures.

Law No. 6,938, of August 31, 1981. Provides for the National Environmental Policy, its purposes and formulation and application mechanisms, and provides other measures.

Law No. 9,782, of January 26, 1999. Defines the National Health Surveillance System, creates the National Health Surveillance Agency, and provides other measures.

Law No. 12,305, of August 2, 2010. Establishes the National Solid Waste Policy.

3. EPIDEMIOLOGICAL SURVEILLANCE

The main objective of this chapter is to standardize concepts and measures to reduce or eliminate the risk of occurrence and spread of diseases and conditions of public health importance on cruise ships. This chapter has the following specific objectives:

- Guide the monitoring of suspected cases of communicable diseases on board shipping vessels cruises;
- Guide measures that contribute to a rapid response to health events on board cruise ships;
- Guide actions for timely laboratory diagnosis of diseases and conditions;
- Recommend best practices for reporting suspected cases of communicable diseases on board cruise ships;
- Disclose definitions and control measures in outbreak situations.

3.1 Detection of cases and disease outbreaks

The onboard health team must be sensitive to the occurrence of health events related to travelers, with the aim of detecting, identifying and, from there, adopting control measures on board the vessel.

3.1.1 Registration of suspected cases

It is recommended that on-board medical records be completed and updated for each trip undertaken. These records must be completely completed and contain at least the following information:

- *Full name;*
- *Age;*
- *Sex;*
- *Cabin number;*
- *Crew member (identify the position or function) or passengers;*
- *Date and time of symptom onset;*
- *First date of clinical visit;*
- *Description of signs and symptoms;*
- *Medicines administered, prescribed or dispensed with dosage; It is*
- *Exams requested and samples collected.*

Onboard medical records already defined as standard by shipping companies must adapt to these minimum requirements through changes or by filling in missing information in the observation fields on the forms.

Brazil presents, in Annex I of this Guide, an Onboard Medical Record model that can be used as a reference.

3.1.2 Definition of cases

It is recommended that the cruise operator avoid boarding people with signs and symptoms compatible with communicable diseases. It is recommended that symptomatic people be evaluated by a medical professional before boarding.

During the trip, any passenger or crew member who presents or complains of signs and symptoms of illnesses and diseases defined as Compulsory Notifiable Diseases (DNC), according to Brazilian legislation, must be evaluated by the health team.

For the purposes of notification to the Brazilian health authority, considering the history of health events on board cruises, it is recommended that the following definitions of cases:

A) Acute Diarrheal Disease (ADD) Traveler with:

- increased frequency of bowel movements, at least 3 (three) bowel movements, of loose or watery stools in a period of 24 hours, or above what is expected for the individual, or
- vomiting and one more symptom including, one or more diarrheal episodes, or abdominal pain, or headache, or muscle pain, or fever (temperature above 38°C – 100°F).

B) Flu Syndrome (GS)

Traveler with an acute respiratory condition, characterized by at least two (2) of the following signs and symptoms: fever (even if reported), chills, sore throat, headache, cough, runny nose, olfactory disorders or taste disorders.

Attention: In the presence of fever, an influenza test must be performed.

C) SARS-CoV-2 or Covid-19

Case of SG or SARS with test of:

Molecular biology: DETECTABLE result for SARS-CoV-2 carried out by the following methods:

real-time RT-PCR or RT-LAMP

Antigen research (TR-Ag): REAGENT result for SARS-CoV-2 using the Immunochromatography for antigen detection.

Attention: For the purpose of confirming Covid-19 cases on cruise ships, only laboratory criteria will be used, as described below.

Note: It is recommended that cases of Flu Syndrome should be tested for Covid-19.

D) Severe Acute Respiratory Syndrome (SARS)

Traveler with GS who presents: dyspnea/respiratory discomfort or pressure or persistent pain in the chest or O2 saturation 94% in room air or bluish discoloration (cyanosis) of the lips or face.

Note: In children, in addition to the previous items, observe nasal flaring, cyanosis, intercostal insufficiency, dehydration and loss of appetite.

E) Measles

Traveler who presents with high fever and maculopapular rash, accompanied by cough and/or runny nose and/or conjunctivitis, regardless of age and vaccination status;

F) Rubella

Traveler who presents with fever and maculopapular rash, accompanied by retroauricular, occipital and/or cervical lymphadenopathy, regardless of age and vaccination status;

Note: Any traveler with the symptoms described is considered a suspected case, and this consideration must be reinforced when there is a history of travel abroad in the last 30 days, or contact with someone who traveled to places where the measles virus is circulating in the same period.

G) Varicella

Traveler who presents with skin lesions, which present themselves in different evolutionary forms (red spots, blisters), accompanied by an uncomfortable sensation on the skin and itching. Chickenpox can result in moderate fever and systemic symptoms such as malaise, tiredness, headache, low-grade fever and loss of appetite.

H) Meningitis

Travelers with signs and symptoms of fever ($>38^{\circ}\text{C}$ / 100.4°F), headache, vomiting, nausea, neck stiffness and other signs of meningeal irritation (Kernig and Brudzinski), convulsions and/or red spots on the skin.

In children under one year of age, also observe signs of irritability, such as persistent crying, and check for bulging fontanel.

Note: It is advised that a suspected case of meningitis must be disembarked immediately.

I) Pulmonary Tuberculosis

Traveler who has a dry or productive cough for three weeks or more, accompanied or not by other signs and symptoms suggestive of tuberculosis (afternoon fever, night sweats, weight loss and tiredness/fatigue).

Note: The diagnosis of pulmonary tuberculosis requires sputum smear microscopy or culture or a rapid molecular test, or even, in the absence of these, suggestive imaging or histological tests.

3.1.3 Outbreak definition

An outbreak is characterized by a situation in which there is an increase in the occurrence of cases of an event or disease in an area or among a specific group of people, in a given period. It should be noted that, for some diseases, a single case may represent an outbreak.

For the occurrence of diseases that do not meet the outbreak definition described in this Guide, the situation will be assessed on a case-by-case basis by Brazilian health authorities.

When there is an outbreak, it is necessary to compile and make available data on affected passengers and crew containing the following information:

- Full name;
- Date of birth;
- Nationality;
- Telephone (containing the national and international telephone code);
- Email.
- Home address
- Municipality and country of embarkation

Note: In the absence of telephone or email data, provide the reference address. If cases of measles and rubella occur, it is necessary to make a list of all crew and passengers available. The same may occur in other events of public health interest at the discretion of the health authority.

A) Outbreak of Acute Diarrheal Disease (ADD)

When the number of cases of Acute Diarrheal Disease reaches or exceeds 2% of the total number of passengers or crew.

B) Influenza Syndrome (GS)

For ships with 100 travelers or more, when the number of Flu Syndrome cases reaches or exceeds 2% of the total number of travelers (passengers and crew), with an interval of up to 7 (seven) days between the dates of onset of symptoms.

Note: If laboratory confirmed, the etiological agent will be defined as an outbreak of the identified pathology. Unspecified etiological agent will be defined as an outbreak of unspecified SG.

Important: In the event of a Covid-19 outbreak, if the number of cases reaches or exceeds 10% of the total of one of the groups of travelers (passengers or crew), the vessel must undergo quarantine and adopt additional measures defined by Anvisa.

3.2 Case notification

As determined by current regulations, the ship must notify Anvisa, by electronic means or other means that guarantee agility and certainty of receipt of information, of the occurrence of events health issues on board, such as notifiable diseases, disembarkation for medical care and death on board.

3.2.1 Daily notification

To standardize and strengthen the monitoring of health events on cruises and, consequently, a timely response, it is recommended that every cruise ship, whether coming from abroad or not, must notify the health authorities daily of the health situation on board, as follows:

- Vessels coming from abroad: notify at least 24 hours in advance and maximum 36 hours before expected arrival at the first Brazilian port;

Vessels coming from national ports: notify daily at 12:01 p.m.;

Even if no event occurs or the health situation on board does not change during the notification period, the absence (NIL) of a health event must be notified (negative notification).

Daily notification must be cumulative during a cruise, and reported cases must not be excluded even after symptoms have ceased.

The event must be closed only after the end of a cruise, when the majority of passengers disembark or when the ship leaves Brazilian jurisdictional waters towards other countries.

When opening a new event, cases already reported in the previous event must be reset, even if they still remain on board and are symptomatic.

The team is also advised to access and update/complement the information contained in the electronic form relating to the cruise, whenever one of the following situations arises:

- the onboard health team deems it appropriate due to the occurrence of atypical behaviors during onboard events;
- there is an increase in the number of cases or a change in the severity of an event already reported in the daily notification;
- disembarkation for medical care or death on board.

3.2.2 Notification system

To access the system used to create and fill out the electronic form, you will need a “username” and “Password”, which must be requested by email to shipsdecruzeiro@anvisa.gov.br informing the name of the ship, IMO number, flag and email from the healthcare team.

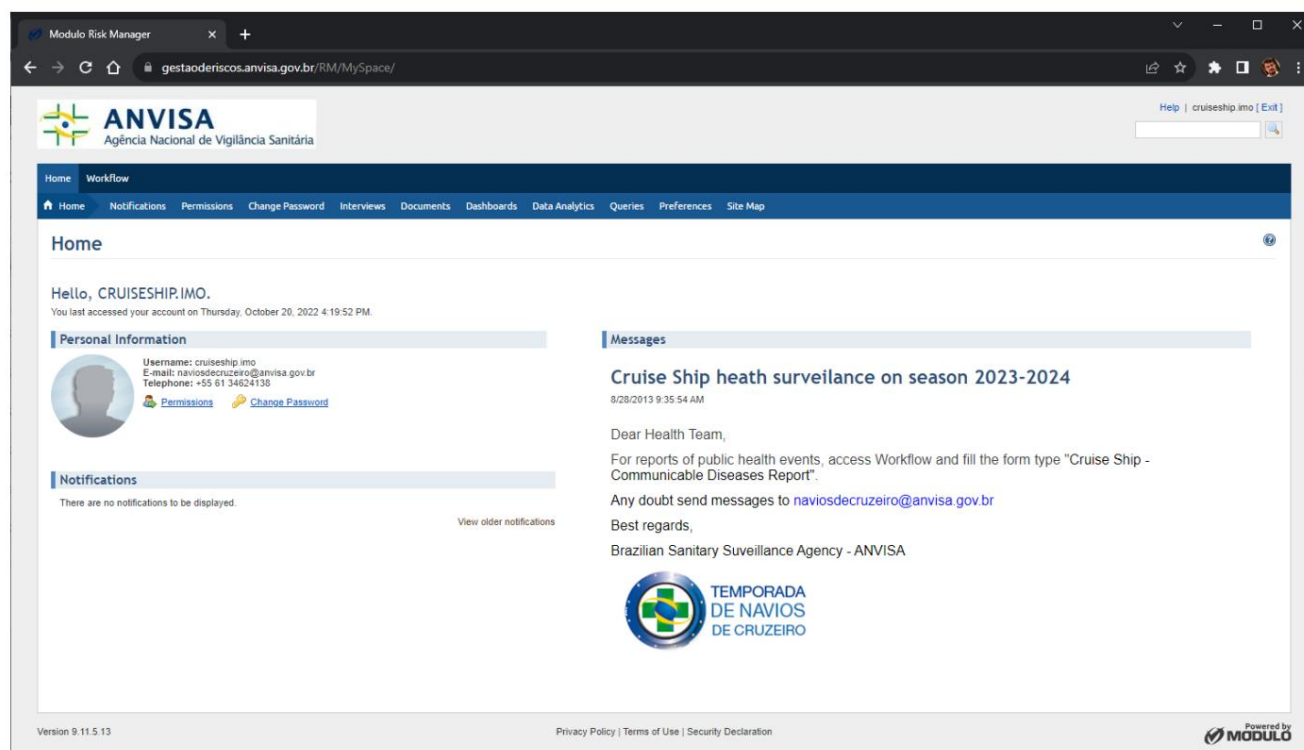
3.2.2.1 Accessing the Risk Manager system

Notification must be made using the online form, available on the internet at <https://gestaoderiscos.anvisa.gov.br/PORTAL/> (Screen 1).

Fabric 1 – Login

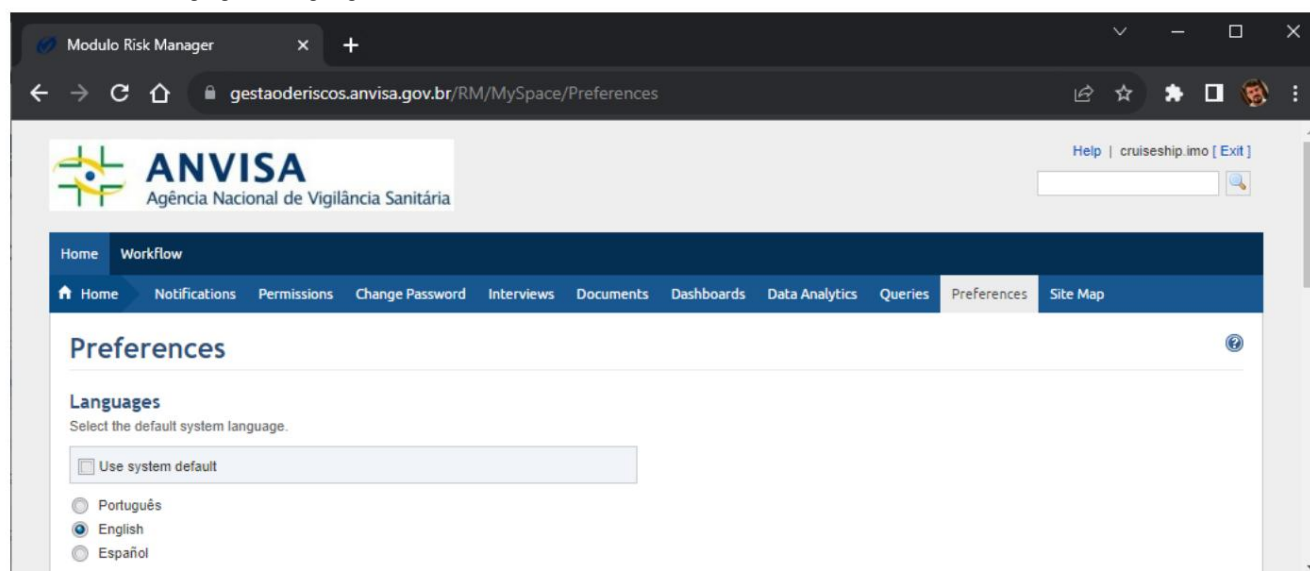
Fabric 1 – Login on first access, you must change the password. If the login and password are correct, you will access the “Home” section, with current notifications and messages from the Anvisa Cruises Team (Screen 2).

Bodies 2 – Home



After accessing the system, if necessary, you can change the language in “Preferences” (Screen 3).

Screen 3 – Changing the language

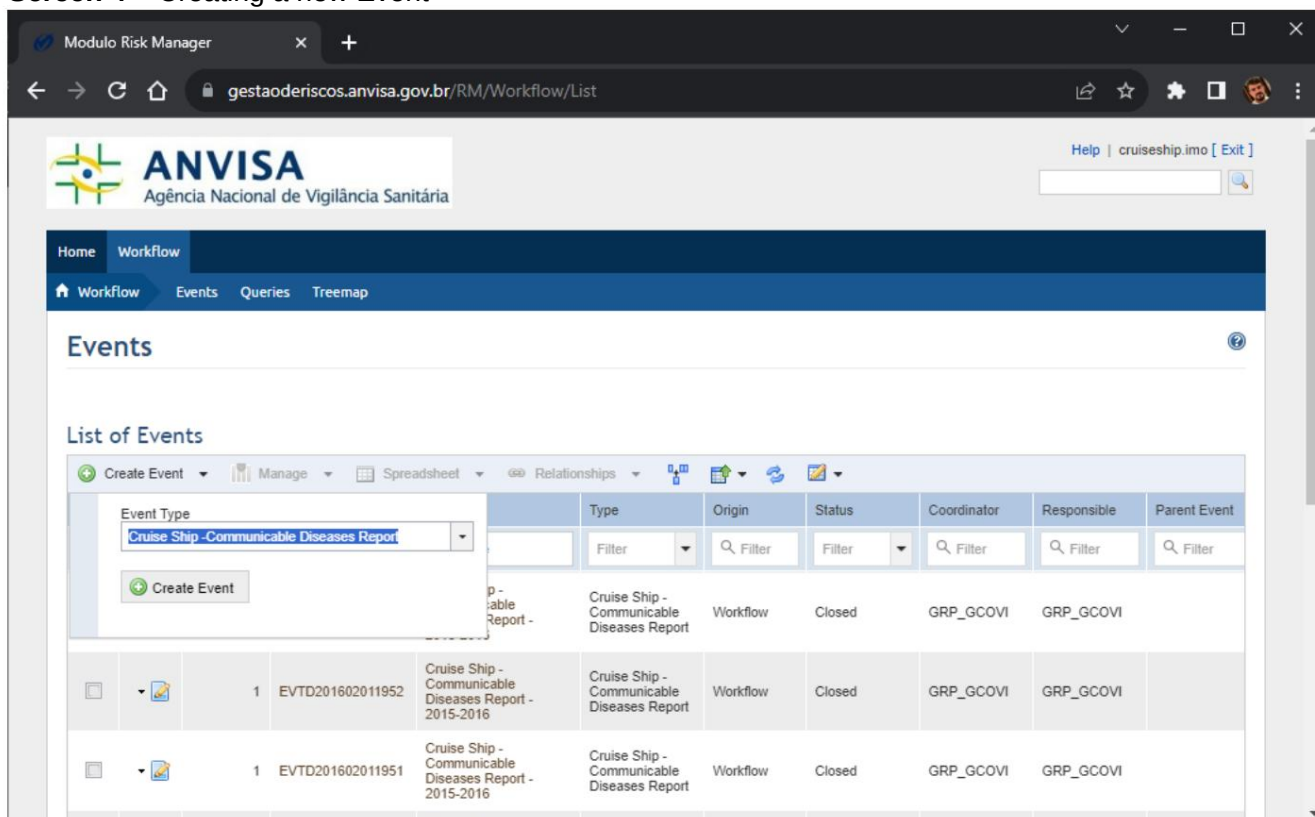


3.2.2.2 Daily notification

For the daily notification process, click the **Workflow menu**. On this screen, all previously created notifications, using the login used, will be listed, so you can click on the Event code to access and update it. If the event is closed it will only be available for reading.

To create an Event, click on "Create Event" and choose the *"Cruise Ship-Communicable Diseases Report"* option. A new event will be started to register the daily notification. (Screen 4)

Screen 4 – Creating a new Event



The screenshot shows the ANVISA Modulo Risk Manager interface. The top navigation bar includes 'Home', 'Workflow', 'Events', 'Queries', and 'Treemap'. The 'Events' section is active, displaying a 'List of Events' table. A 'Create Event' dropdown menu is open, showing the selected event type: 'Cruise Ship - Communicable Diseases Report'. The table lists three events, all of which are 'Cruise Ship - Communicable Diseases Report' and 'Closed'.

Event Type	Type	Origin	Status	Coordinator	Responsible	Parent Event
Cruise Ship - Communicable Diseases Report	Filter	Filter	Filter	Filter	Filter	Filter
Cruise Ship - Communicable Diseases Report	Cruise Ship - Communicable Diseases Report	Workflow	Closed	GRP_GCOVI	GRP_GCOVI	
Cruise Ship - Communicable Diseases Report	Cruise Ship - Communicable Diseases Report	Workflow	Closed	GRP_GCOVI	GRP_GCOVI	
Cruise Ship - Communicable Diseases Report	Cruise Ship - Communicable Diseases Report	Workflow	Closed	GRP_GCOVI	GRP_GCOVI	

REMEMBER IF! An event must be created for each trip.

You must click on "Create Event" only on the first day of the trip and update it daily until the last day of the trip. You must close the Event at the end of each trip or when you leave Brazil.

You should only open another Event when a new trip starts and update it daily.

After “Create Event” you must complete the first form with information about the cruise. You must fill out the form and save to proceed. (Screen 5)

Screen 5 – Filling in the basic Event information

Modulo Risk Manager

gestaoderiscos.anvisa.gov.br/RM/Workflow/New/CustomForm/f295e3c9-6088-4473-862e-7a92f85...

ANVISA
Agência Nacional de Vigilância Sanitária

Help | cruiseship.imo [Exit]

Home Workflow

Workflow Events Queries Treemap

[New Event] List Events

Author
Undefined value

Date Created
Undefined value

1.Trip's first port/Porto de Inicio da viagem

2.Trip's start date/Data de início da viagem

3.Trip's last port/Último porto da viagem

4.Trip's end date/ Data de término da viagem

5.Next Port / Próximo Porto

6.Next Port Arrival Date/Data chegada próximo Porto

* 7.N° Total Passengers/N° Total Passageiros

* 8.N° Total Crew/N° Total de tripulantes a bordo

Save Cancel

Version 9.11.5.13 Privacy Policy | Terms of Use | Security Declaration Powered by MODULO

NOTE: In this tab, fields 5 (Next Port) and 6 (Arrival date Next Port) are related to the expected arrival at the next port, as expected for the trip, considering that the information provided must be as real as possible. When the trip approaches the end, with no other stopover, fields 5 and 6 must have the same information as fields 3 (Last Port of the Trip) and 4 (End date of the trip).

ATTENTION! After filling out or updating any form, you must save it.

After saving the information in the “Cruise Ship” section, the system will switch to the “Public Health Events” tab, where the daily notification with information about health situations on board will be recorded (Screen 6).

Tela 6 - Public Health Events

The screenshot shows a web-based form titled "Public Health Events" with three tabs: "Cruise Ship", "Public Health Events", and "Progress". The form is organized into two main columns.

Left Column:

- * 9. Report type / Tipo de notificação**
 - ☐ NIL
 - ☐ Public Health Event / Evento de Saúde Pública
 - ☐ Death on board
 - ☐ Disembark for health treatment
 - ☐ Other
- 10. Public Health Events/Eventos de Saúde**
 - ☐ 10.1. Acute Diarrheal Illness - ADI
 - ☐ 10.2. Influenza-like
 - ☐ 10.3. Other: Measles
 - ☐ 10.3. Other: Meningitis
 - ☐ 10.3. Other: MERS-CoV
- 10.3. For Other events, describe symptoms/diagnosis**
- * 10.1.1. Acute Diarrheal Illness - N° Crew**
- * 10.1.2. Acute Diarrheal Illness - N° Passengers**
- 10.1.3. ADI - Date onset first case**
- 10.1.4. ADI Illness rate on Crew**

Valor Indefinido
- 10.1.5. ADI Illness rate on Passengers**

Valor Indefinido
- * 10.2.1. Influenza-like - N° Crew**
- * 10.2.2. Influenza-like - N° Passengers**
- 10.2.3. Influenza-like - Date onset first case**
- 10.2.6 Influenza-like rate**

Valor Indefinido

Right Column:

- * 10.2.4. SRAG - N° Crew**
- * 10.2.5. SRAG - N° Passengers**
- * 10.5.1. Confirmed COVID-19 Crew cumulative cases**
- * 10.5.2. Confirmed COVID-19 PAX cumulative cases**
- 10.5.5 COVID-19 rate**

Valor Indefinido
- * 10.6.1. Confirmed Influenza on Crew**
- * 10.6.2. Confirmed Influenza on Passengers**
- 10.6.3. Influenza rate**

0
- * 12. Applied Health Control Measures**
 - ☐ NIL
 - ☐ Collection of faeces, nasopharyngeal secretions or blood samples
 - ☐ Disinfection
 - ☐ Disinsection
 - ☐ Quarantine of crew and passengers
- * 12.6. Regular occupied cabins for isolation**
- 11. For death/disembark, describe symptoms/diagnosis**
- * 13. Oxygen/medicine for COVID-19 supply available**

At the bottom left, there are "Save" and "Cancel" buttons.

If you have (or had on the current trip) any public health event on board, you must complete items 9 to 13. The “NIL” option should **only** be selected if you have no cases, deaths or disembarkation for health reasons on board. current trip. The form will automatically calculate fees in fields 10.1.4, 10.1.5, 10.5.3 and 10.5.4.

Fill out the form from the first day of the trip cumulatively! So, if cases start before Brazilian waters, you must notify them.

ATTENTION!

The number of cases must be recorded cumulatively, this way, during the same trip, cases must not reduce in the Event form until the end of the trip.

Example:

Day 1 – ship reports 08 cases of SG, 0 Covid-19, 01 Influenza After carrying out tests, 02 of the SG cases are confirmed as Covid-19. The traveler with Influenza is released from isolation.

Day 2 – ship reports 06 cases of OS, 02 cases of Covid-19, 01 case of Influenza.

ATTENTION!

GS cases can be reduced, exclusively through laboratory confirmation for Covid-19 or Influenza. Thus, the cases subtracted from the SG are now counted as Covid-19 or Influenza.

To update the daily notification, or when necessary, you must click on the event code to be updated shown on Screen 4. **It is important to emphasize that cases must be registered cumulatively and must not be reduced when passengers disembark before the end of the trip.**

The update history will be displayed in the “Progress” tab, where you can also click on the “Update Progress” button and enter a description for any situation or when there are no changes.

(Body 7). In the “Progress” tab you can close the Event by clicking on the “Close Event” button (Screen 7).

The event must only be closed at the end of the trip.

Cruise Ship -Communicable Diseases Report - 2023-2024

Update Progress

Enter details on the progress update.

The information below will be applied to the event selected.

* Comment

No new cases today

Percentage of Progress

0%

Start Date

9/22/2023 4:59 PM

Update Progress Cancel

Progress

Updated By: cruiseship.imc

Event created.

Properties updated:

1. Trip's first port/Porto de

10.6.1. Confirmed Influenza

10.6.2. Confirmed Influenza

2. Trip's start date/Data de

3. Trip's last port/Ultimo po

4. Trip's end date/ Data de

5. Next Port / Próximo Port

6. Next Port Arrival Date/Da

7. N° Total Passengers/N° T

8. N° Total Crew/N° Total de

9/22/2023 4:48:29 PM

Page 1 of 1 (1 items)

3.3 Epidemiological investigation

If a traveler is identified on board with symptoms compatible with the case definitions set out in this Guide, or another disease of interest to public health, an epidemiological investigation of the cases may be carried out, depending on a prior assessment by the Brazilian health authority.

During the investigation, for every traveler classified as a suspected or confirmed case and, if necessary, their close contacts or travelers selected by the epidemiological investigation, the investigation questionnaire may be applied, as suggested in Annex II or to be determined by the investigation team.

3.3.1 Laboratory diagnosis

Sample collection is important for finalizing the diagnosis and identifying the possible disease-causing agent. Sample collections can be clinical or environmental. Clinical samples are directly related to the individual and aim to finalize the diagnosis of the disease or knowledge of changes in already established clinical patterns. The environmental sample characterizes and defines the presence of potential disease-causing agents found in food, water, air, objects or surfaces. Rapid test kits can be used to screen cases.

3.3.1.1 Sample collection, storage and transport

Clinical samples will only be accepted by Brazilian public laboratories if they are hermetically sealed and properly labeled, legibly and correctly filled out, stored at an appropriate temperature to maintain the integrity of the collected materials, and will be forwarded by ANVISA inspectors in a timely manner to be processed. safely and reliably.

The test request will be completed by the Brazilian health authority, together with a person responsible for the on-board health team, when the clinical samples are collected and transported.

Below we will describe criteria standardized by official laboratories for receiving samples.

All samples must be identified at the time of collection with at least the following information:

- Full name of the traveler;
- Vessel's Name;
- Date and time of sample collection;
- Diagnostic hypothesis;
- Date of onset of symptoms; It is
- Exam(s) requested.

All clinical sample collection procedures must be carried out using appropriate Personal Protective Equipment (PPE).

It is advised that all cruise ships must have on board a minimum number of materials for collecting clinical samples, as specified below.

Minimum recommended stock:

- 10 fecal swabs;
- 10 oronasal (nasopharyngeal) swabs; e
- 10 bottles for collecting fresh feces

The local health authority must be notified about samples collected for coordination with the National Network of Public Health Laboratories.

3.3.1.2 Standardization of collection procedures

The guidelines for collecting clinical samples are described below.

3.3.1.2.1 Acute Diarrheal Disease (ADD)

For each suspected case of ADD, the onboard health team must collect 1 (one) fecal swab or 1 (one) vial with fresh feces without preservative. Preferably, this collection should be carried out while the patient has diarrhea or up to 5 (five) days after the onset of symptoms.

When the attack rate reaches 2% ADI among passengers or crew, healthcare staff should begin collecting clinical samples (feces or vomit) for viral and bacterial analysis. In case of parasitological suspicion, the procedures must be checked with the laboratory where the sample will be sent.

When processing is available within the ship, it is necessary to collect samples from as many suspects as possible. If it is not processed on the ship, the sample must be saved for analysis at the National Network of Public Health laboratories.

When investigating diarrhea outbreaks, it is recommended that samples be collected, if possible, in a paired manner: a fresh sample for detection of enteric virus and a rectal/fecal swab for bacteriological diagnosis.

Bacteria: The test to be carried out is stool culture (stool culture). For this purpose, the fecal or rectal swab technique using a Cary-Blair transport medium is mainly used.

When collecting stool samples by fecal swab, follow the guide:

- I. The swab must be packed in a Cary Blair transport medium (Ready kit);
- II. If the swab is kept at room temperature: the sample must be sent to the laboratory within a maximum of 48 hours;
- III. If kept at refrigeration temperature (4°C): deliver within 7 days;
- IV. It is recommended that clinical samples be sent for analysis in the shortest possible time. possible time, to avoid loss of viability of more susceptible microorganisms.

Note: In the fecal swab, the tip of the swab must be inserted directly into the patient's feces contained

in the formaldehyde-free collection bottle. This procedure must be done within 2 hours after collecting the feces in the bottle.

When collecting stool samples by rectal swab, follow the guide:

- I. Moisten the swab in saline solution or sterilized distilled water;
 - II. Place the patient in lateral decubitus and introduce the moistened end of the swab (2 cm) into the patient's rectal ampoule, compressing it, in gentle rotational movements, along the entire length of the ampoule;
 - III. Place in Cary – Blair transport medium or alkaline peptone water.
 - IV. If kept at room temperature: the sample must be sent to the laboratory at, no maximum, 48 hours.
 - V. If kept at refrigeration temperature (4°C): deliver within 7 days;
- SAW. Swab transportation with Cary Blair must be made available by the cruise ship.

Acceptance of the sample is subject to the following conditions:

- feces must not be contaminated with urine;
- the amount of feces should be approximately 0.5 to 2g;
- the traveler must not be taking antibiotics; It is
- transport must meet biosafety standards.

Viruses: The onboard health team must advise the traveler to collect around 5 to 10 ml/5 grams of “in natura” feces (or approximately 25% of the container) and place the sample in a collection bottle with a screw cap without formaldehyde and transport medium.

Store in the refrigerator (2°C to 8°C) for up to 5 days. After this time, store in a freezer at -20°C.

When the traveler is a baby, the feces must be collected from the diaper with a spatula and placed in a collection bottle or placed in a plastic bag and sent to the laboratory.

3.3.1.2.2 Flu syndrome

Collection of clinical samples must occur up to the 7th day after the onset of the first symptoms.

a) Laboratory criteria for confirming covid-19:

- Molecular biology: DETECTABLE result for SARS-CoV-2 performed by the following methods:
 - o RT-PCR em tempo real
 - o RT-LAMP
- Antigen research (TR-Ag): REAGENT result for SARS-CoV-2 using the Immunochromatography for antigen detection.

b) Laboratory criteria for confirming influenza

- Confirmation of influenza virus infection occurs through RT-PCR laboratory testing in real time (gold standard).

Nasopharyngeal secretion

When collecting samples via nasopharyngeal aspirate, observe:

- Preferably, use the nasopharyngeal aspirate technique with a secretion collection bottle, as the sample obtained by this technique can concentrate a greater number of cells.
- If it is impossible to use the nasopharyngeal aspirate technique, as an alternative, the combined nasopharyngeal and oropharyngeal swab technique may be used, exclusively with a rayon swab.
- Cotton swabs should not be used, as it interferes with methodologies molecules used.
- The collected samples must be kept at an appropriate refrigeration temperature (4° to 8°C) and sent for processing on the same day of collection.

Nasopharyngeal aspirate technique, use a suction pump (portable), sterile catheter No. 6, mucus collector and viral transport medium, and observe:

- Using the disposable plastic collector, aspirate the nasopharyngeal secretion from both nostrils. Vacuuming must be carried out with a portable vacuum pump or wall vacuum; do not use very strong vacuum pressure;
- The probe is inserted through the nostril until it reaches the nasopharynx region, only then the vacuum is applied, aspirating the secretion into the collector;
- This procedure must be carried out in both nostrils, keeping the probe moving to avoid pressure being placed directly on the mucosa, causing bleeding. Alternate collection in both nasal cavities until obtaining a volume of approximately 1ml of secretion.
- After aspirating the nasopharyngeal secretion, insert the aspiration probe into the tube containing 3mL of tryptose phosphate broth (or sterile saline). Aspirate all the juice into the collector. Remove the lid with the probes and discard as biological waste. Close the collection bottle using the plastic cap located at the bottom of the collector. Seal this lid with adherent plastic like Parafilm and keep it refrigerated at 4°C – do not freeze. If Parafilm is not available, seal the bottle with adhesive tape.

Combined nasopharyngeal and oropharyngeal swab

Alternatively, the combined nasopharynx (right and left nostril) and oropharynx swab technique can be used. The three swabs, after collection, must be placed in the same tube containing 3ml tryptose phosphate broth (viral transport medium). If there is no broth, place the 3 swabs together in a tube containing 3mL of sterile saline solution.

Swabs must be cut or folded to fit inside the tube, taking care not to contaminate the sample.

After collection, insert the three swabs into the same polypropylene tube, containing 3ml of 22 medium.

viral transport.

- Nasopharyngeal swab: The swab must be inserted into the nostril until resistance is felt. Collection must be carried out by rubbing the swab trying to obtain some of the mucosal cells.
Take a swab from both nostrils – one swab for each nostril.
- Oropharyngeal swab: Take a swab from the posterior area of the pharynx and tonsils, avoiding touching the tongue

3.3.1.2.3 Tuberculosis

If the vessel has a laboratory structure to carry out tests for the diagnosis of tuberculosis, the health team on board may request the collection of a sputum sample to investigate pulmonary tuberculosis in the suspected case.

If the vessel does not have a laboratory structure to carry out diagnostic tests for tuberculosis, the health team on board may request the collection of a sputum sample and store it for up to seven days in a common refrigerator until stopping at the next port.

Note: If the suspected etiological agent is any other agent not specified in these items, the onboard health team must consult the Brazilian health authority for guidance on collection requirements and procedures.

3.4 Control measures

Upon assessment of the outbreak or suspected case, the onboard health team is advised to adopt the measures recommended below and support the health authorities.

The vessel is responsible for enabling the identification of crew and passengers who came into contact with confirmed and suspected cases. When requested, provide information that allows the health authority to communicate with these travelers.

3.4.1 Control measures for ADD outbreak - OPRP

Control measures aim to both prevent the occurrence of outbreaks and reduce their spread on board. It is recommended that every ship must have an Outbreak Prevention and Control Protocol – “Outbreak Prevention and Response Protocol - (OPRP)” on board which details the standard procedures, triggers (indicators) and responsibilities for the prevention and control of Acute Diarrheal Diseases on board including:

- Duties and responsibilities of each department (cleaning cabins and public areas, laundry, doctor, food, etc.);
- Steps in managing and controlling outbreaks (including criteria for changing alert levels to edge
- Survey of the main risks of dissemination of infectious agents within the vessel;

- Disinfectant products or systems used, including concentrations and contact time necessary
- Procedures for returning the ship to normal operating conditions after an outbreak.

Description of the main prevention and control measures, including:

- Guidelines regarding the application of precautionary and isolation measures applied to people treated by the medical service (standard precautions and specific precautions, depending on the infectious agent), among which the following stand out: the use of PPE, hand hygiene, cleaning and disinfection of surfaces, care for clothing and utensils used, disposal of sharps, isolation of suspected/confirmed cases, cough etiquette;
- Provide guidance for cases of respiratory diseases, such as: cough etiquette, use of disposable tissues when coughing or sneezing, hand hygiene after coughing or sneezing, avoiding crowds when experiencing respiratory symptoms, etc.;
- Cleaning and disinfection procedures described in the form of SOPs including details of the types of equipment and sanitizing products used for this purpose, as well as concentrations, method of use and necessary contact time;
- Guidance regarding the need to isolate suspected/confirmed cases;
- Guidelines regarding waste generated during assistance or in case cabins suspected/confirmed; It is
- Procedures to inform and guide passengers and crew about the occurrence of an outbreak and related precautions, including material to inform new passengers who will board after identifying the occurrence of an outbreak;

It is recommended that all responsible officers, as well as intervention teams, have knowledge of Anvisa protocols and the Outbreak Prevention and Control Protocol (OPRP) procedures under their supervision.

3.4.1.1 Planning actions in case of an ADD outbreak

Next, measures to reduce the impact of outbreaks among travelers will be discussed.

In the event of a suspected or confirmed outbreak, the onboard health team advises:

- Ensure the application and monitoring of the measures provided for in the OPRP;
- Immediately notify the Brazilian health authorities;
- Declare an outbreak according to criteria standardized by Brazilian health authorities;
- Provide adequate medical care to affected travelers at no cost;
- Coordinate the surveillance and monitoring of suspected cases on board; It is
- Summon an emergency team ("Incidence Team") to immediately begin investigation strategies to identify possible sources and types of disease.

3.4.1.2 Composition of the emergency team in case of an ADD outbreak

It is recommended that the emergency team, whilst in navigation, should be comprised at a minimum of:

- Doctor responsible
- Commander or First Officer
- Responsible for hospitality
- Responsible for food
- Head of the engine room

This team must always maintain close contact with national public health authorities through the contact methods available in this Guide.

3.4.1.3 Responsibilities of emergency personnel in the event of an ADD outbreak

It is recommended that emergency personnel should:

- Review information collected on suspected cases involved in the outbreak and try to identify the possible etiological agents involved;
- Ensure the application and monitoring of the measures provided for in the OPRP;
- Inform immediately and continuously (at least twice a day) the health authorities at the port of destination about the measures being applied and the outbreak situation on board;
- Implement environmental control measures (cleaning and disinfection), as well as aimed at passengers and crew (such as hygiene and isolation);
- Ensure adequate collection and storage of clinical and environmental samples;
- Provide clear and accurate information through warnings and reports to passengers and crew;
- Ensure that surveillance and monitoring of cases occurs accurately and is registered;
- Coordinate and monitor the application of Epidemiological Assessment Questionnaires - Annex II to all suspected cases on board;
- Monitor and guide close contacts of suspected cases regarding prevention and control measures; Recommend the adoption of prevention and control measures to all travelers, in order to avoid the spread of diseases, such as: special attention to personal hygiene and hand washing; It is
- Ensure effective and agile communication with health authorities.

The emergency team, called upon suspicion or confirmation of an outbreak, must coordinate an investigation into food and beverage production operations, even if person-to-person transmission is suspected. Similarly, an investigation into the onboard drinking water system should also be conducted to identify possible risk factors triggering the outbreak. Furthermore, swimming pools, SPAS and other aquatic systems must be analyzed.

3.4.2 Environmental cleaning

As soon as an outbreak is suspected on board, the ship must institute a special cleaning regime. To execute this regime, a specific team must be composed that will be

responsible solely for cleaning cabins, which present suspected or confirmed cases of passengers and crew, and areas with the presence of vomit, feces or other secretions.

All guidelines and procedures to be adopted are set out in the document "Guidelines for cleaning and disinfection procedures for ships with an outbreak of communicable diseases on board", Annex III of this Guide.

The cleaning of all surfaces on the ship where people circulate and are touched a lot must also be reinforced.

If applicable, the air conditioning system must also be investigated to check and remedy possible faults that could facilitate the transmission of the disease on board, paying attention to the positions of the cabins of affected people, which could indicate faults in this system.

The combination of hot water and detergents used in washing machines for food utensils is sufficient to decontaminate those used by travelers in isolation, with no special precautions required.

Utensils used by isolated travelers should not be shared, in accordance with the principles of good personal hygiene, in order to prevent the transmission of diseases.

If adequate resources for cleaning are not available, disposable utensils should be used.

3.4.3 Hand hygiene

Microorganisms can remain viable on hands for hours, making them a way to spread a disease on board. Therefore, hand antisepsis is one of the most important prevention procedures.

Hand washing with water and liquid soap should be encouraged on board, with washbasins should be located in strategic areas of the vessels to allow travelers to clean their hands frequently.

Each food preparation area, bar, utensil cleaning area, and solid waste storage area must be equipped with at least one hand washing facility.

Travelers must have instructions available on the correct way to wash their hands. These instructions should include information on using disposable paper to tighten dispensers, faucets, and others that are manually operated to avoid re-contamination of clean hands.

Hand washing is recommended after using the toilet, when coughing or sneezing using your hands and carrying out activities that involve the hand. It is also recommended to wash your hands before handling food, eating or drinking, smoking, brushing your teeth and carrying out any activity that involves mouth-to-hand contact. When entering the cabin, it is recommended to always wash your hands.

3.4.3.1 Antiseptics

Antiseptic dispensing equipment, whether alcohol-based or not, should be considered a means of complementary hygiene, but never as a substitute for washing hands with soap and water.

The alcoholic preparation for hand hygiene in liquid form, in a final concentration between 60% and 80% intended for application to the hands, is used to reduce the number of microorganisms. Alcoholic preparation for hand hygiene in the form of gel, foam and other preparations containing alcohol, at a minimum final concentration of 70% and with antibacterial activity proven by in vitro laboratory tests (suspension test) or in vivo, are intended for reduce the number of microorganisms.

These antiseptics must be regularized with the competent health body, if Brazilian, as evidenced by regulatory devices, which determine whether the product or service is subject to the health surveillance regime in compliance with current legislation.

It is considered extremely important that equipment dispensing a 70% alcohol-based solution is made available in strategic locations on vessels for complementary hand hygiene, such as entrances to theaters, restaurants, casinos, spas, public restrooms, among others.

3.4.4 Isolation

The isolation of travelers suspected or confirmed to have a communicable disease aims to minimize the spread of the disease, controlling the circulation and services provided to these travelers. Isolation is an intervention that makes it possible to restrict the transmission of the pathogen, preventing its spread.

Isolation must preferably be carried out in an individual cabin. Therefore, whenever possible, suspected/confirmed cases should be relocated to different accommodation than other asymptomatic people with whom they shared the cabin. In specific cases, such as parents and children or dependents, the isolation of suspected/confirmed cases must be evaluated if the case.

For suspected/confirmed cases, isolation in nearby cabins and in an area that minimizes the risk of exposure to other areas and people is recommended, for better logistics for monitoring these cases. In these situations, professionals must be assigned to exclusively assist these cabins.

3.4.4.1 Acute diarrheal disease

All passengers diagnosed with Acute Diarrheal Disease must remain in their cabins during the presence of symptoms and for at least 24 hours after they have stopped.

They should also be instructed to only use room service for food and other needs, and not to eat any meals in Buffett or self-service areas until they have been asymptomatic for 48 hours. It is recommended to only use the toilets in your cabins for 24 hours 27 after symptoms end.

Food handlers and healthcare team members suffering from acute diarrheal disease must be isolated immediately until they have been symptom-free for at least 48 hours. After this period, they must be evaluated to be authorized to return to their routine activities or not. Other crew members who are not food handlers must be isolated for up to 24 hours after symptoms have stopped.

Companions of crew members suspected of having ADD must be placed in non-food and beverage-related roles for 48 hours and monitored for a further 24 hours.

3.4.4.2 Unspecified flu syndrome

Travelers with Flu Syndrome must be evaluated by a doctor and must remain isolated in their cabins for at least 24 hours after the fever (37.8°C) disappears without the use of antipyretic medications.

3.4.4.3 Influenza

Travelers confirmed by examination to have influenza must be kept in isolation for up to 24 hours after the fever and respiratory symptoms disappear, as long as they are not using antipyretics.

3.4.4.4 Covid-19

Confirmed cases of Covid-19 must remain in cabin isolation for a full 10 days for mild or moderate flu-like illness. The day of onset of symptoms is day zero, with day 1 being the first full day after the onset of symptoms, and so on.

Isolation can be suspended on the 7th day if symptoms have resolved for at least 24 hours, without the use of antipyretic medications.

Isolation can be suspended on the 5th full day following a negative molecular biology or TR-Ag test (performed on the 5th day) and if respiratory symptoms improve and are afebrile in the last 24 hours.

Note: In cases where isolation is suspended before the 10th day, the traveler must wear a surgical or PFF2/N95 mask until the 10th full day.

Note: Suspected cases of Covid-19 (symptomatic) not confirmed by laboratory testing must remain in isolation until a negative test result and remission of respiratory symptoms, including being afebrile for at least 24 hours without using antipyretics.

3.4.4.5 Measles, rubella or chickenpox

All suspected cases of measles, rubella and chickenpox must be isolated or remain in the cabin for the duration of the transmissibility period.

- Measles: 6 days before and 4 days after the onset of the rash;
- Rubella: 7 days before and 7 days after the onset of the rash;
- Chickenpox: 2 days before the rash and continues until all lesions are in the healing phase crust.

Food service and medical care must be provided in the cabin. It is recommended that professionals who deal with confirmed cases have been previously immunized and use Personal Protective Equipment - disposable PPE.

Pregnant women, children under nine months of age and immunocompromised people who are contacts of suspected or confirmed cases of chickenpox must receive anti-varicella immunoglobulin within 96 hours of contact with the case.

3.4.4.6 Tuberculosis

Suspected or confirmed cases of pulmonary tuberculosis who have not yet started treatment or who have been undergoing treatment for less than 15 days must avoid close contact and closed environments with other crew members. When this contact is essential for carrying out your activities, the use of a surgical mask is recommended. People with tuberculosis under these criteria should move in airy places, with good ventilation, and sunlight.

If a traveler is diagnosed with tuberculosis, all others will be considered potential contacts, and their investigation must take into account the degree of exposure (living environment and time), following the recommendations.

3.4.4.7 Companions

Asymptomatic companions of passengers suspected of having communicable diseases do not require quarantine, but must receive information about the symptoms, prevention and control of the disease in question.

Whenever possible, asymptomatic travelers who are sharing a cabin with suspected cases should be relocated, especially individuals with known vulnerability. People outside the household should be discouraged from visiting individuals suspected of having communicable diseases during the communicable period.

3.4.5 Precautions for airborne transmission

The traveler who requires respiratory isolation must be in a restricted location, in the ship's hospital, with special ventilation treatment that meets the negative pressure determinations in relation to the surrounding area. The exhaust fan must be directed to the outside or through a recirculating HEPA filter before returning.

In the context where precautions against the transmission of airborne pathogens cannot be implemented due to limited engineering resources (e.g. passenger and crew cabins), the door must be kept closed and masks suitable for the event in question must be made available with the purpose of reducing airborne transmission until the patient is transferred to an appropriate facility. The mask used must be placed before entering the cabin and withdrawal only after departure.

If a patient suspected of having a disease transmitted by aerosols or droplets needs to leave the isolation room, they must wear a surgical mask or PFF2/N95.

3.4.6 Guidance for travelers

When an outbreak is declared on board, due to diseases other than ADD, the health team must reinforce health control with the measures listed below:

- Increase the number of notices in bathrooms and common areas about the importance of washing hands as a way of preventing diseases;
- Advise travelers to avoid sharing personal items, especially between children and adults;
- Advise travelers to inform the healthcare team when symptoms appear aiming to assist and monitor cases;
- Guide and train crew members responsible for servicing suspected travelers' cabins, regarding recommended procedures for prevention and control;
- Provide sound alerts with information on prevention and control measures communicable diseases on board.

3.4.7 Vaccination block

A) Measles and Rubella

In the event of suspected or confirmed cases of measles or rubella, blocking with the MMR vaccine must be carried out within 72 hours of identifying the case, in order to interrupt the chain of transmission.

It is recommended that all crew members have their updated vaccination card on board, proving immunization against measles and rubella.

The target population for the measles and rubella vaccination block will be defined at the discretion of the health authority.

Susceptible pregnant women and children under 6 months of age must be removed from contact with suspected or confirmed cases and their contacts, during the period of transmissibility and incubation of the disease. Vaccination of pregnant women should be postponed until the postpartum period.

B) Chickenpox

Pregnant women, children under nine months of age and immunocompromised people who are contacts of suspected or confirmed cases of chickenpox must receive anti-varicella immunoglobulin within 96 hours of contact with the case.

3.4.8 Vessel quarantine

In the event of a situation defined as an outbreak on board, the captain must immediately ensure the adoption of the measures provided for in the vessel's protocols, such as for OPRP, and those imposed by the Anvisa, which may include, among others:

- increased supply of external air in all closed areas of the vessel; • increase monitoring of travelers' health conditions by the company's health team vessel
- implement work quarantine for crew members who are not identified as closer contacts
- reduce the number of crew members in their food environments; suspend meals served in a self-service format for passengers and crew.

Note: Quarantine at work: the crew member is permitted to work and must observe activity restrictions and return to the cabin at the end of the working day.

If the proportion of COVID-19 cases on board reaches or exceeds 10% among passengers or crew, ship quarantine will be indicated. In this scenario, the captain must immediately ensure the adoption of the measures provided for in the vessel's protocols and those imposed by Anvisa, which may include, among others:

- exclusively external air supply in all closed areas of the vessel; • provide surgical or PFF2/N95 masks for all travelers to be used while they remain outside the cabins; • suspend all recreational activities; • suspend travelers' shore excursions; • suspend the crew's shore leave; It is
- suspend boarding of new travelers.

4. HEALTH SURVEILLANCE

4.1 Food

4.1.2 Food safety plan

Every vessel must have and maintain an updated Food Safety Plan (PSA) for food prepared on board.

The Codex Alimentarius Commission (CAC) belonging to the FAO/WHO Food Production Standardization Program aims to protect consumer health and ensure safe practices in food trade and to this end recommends the development and use of the PSA.

PSA(s) are required to ensure the production of safe food. A modern PSA must present aspects that can affect food quality and safety. Therefore, the PSA must describe all procedures adopted by ship operators to ensure the quality and safety of food prepared on board and compliance with national and international health standards.

The PSA is the document that describes the operations carried out by the vessel, including, at a minimum, the sanitary requirements of the physical structures, maintenance and hygiene of installations, equipment and utensils, control of supply water, integrated control of vectors and urban pests, hygiene and health control of handlers and control and quality assurance of the final product.

The PSA must be a faithful reproduction of the vessel's reality (for example, construction, layout, menus, equipment or technological developments) and must be updated whenever changes occur in its physical or operational structure.

A model for PSA is suggested in Annex IV of this Guide.

The reference basis for food safety management is the Hazard Analysis and Critical Control Points - HACCP. There may be other acceptable food safety management programs that involve partial application of the HACCP system.

PSA should be used as a tool to assess hazards and establish control systems focused on prevention, not limited to analysis of the final product. In addition to increasing food safety, the implementation of PES can provide other important benefits, including a structure to support inspection and certification by regulatory authorities.

Successful implementation of a PSA requires the full commitment and involvement of officers and crew members.

Below, we transcribe some HACCP principles, according to the WHO Vessel Health Guide (2011):

The application of the principles and steps of the HACCP plan for ships are briefly described below. When applying HACCP, it is important to be flexible, whenever applicable.

Preliminary stages:

- Step 1. Formation of the HACCP plan team. The ship's commander must ensure the presence of professionals on the team with technical knowledge and competence to develop an effective HACCP plan. The scope of the HACCP plan must be identified.
- Step 2. Description of products. A complete description of the products must be prepared food, including its storage conditions.
- Step 3. Determine intended use. Vulnerable groups must be identified, such as the elderly, pregnant women or allergic groups.
- Step 4. Preparation of the flowchart. The flowchart must cover all steps throughout and any food handling.
- Step 5. On-site confirmation of the prepared flowchart. The HACCP plan team must take measures to confirm coherence between the prepared flowchart and food handling during all stages, revising the flowchart, if necessary.

HACCP Principles

Principles 1. Hazard analysis.

The HACCP plan team must list all potential hazards associated with each food handling step, conduct a risk analysis, considering measures to control the identified hazards. "Hazard identification" includes defining the nature of the hazard, whose elimination or reduction to acceptable levels is essential to the production of safe food. Consideration should be given to which control measures, if any, can be applied to each hazard. The application of more than one control measure may be necessary to control a single hazard, or specific hazard(s), and the application of a given measure may control more than one hazard. When carrying out hazard analysis, the following factors should be considered, whenever possible:

- the likely occurrence of hazards and the severity of harmful effects on health;
- qualitative and/or quantitative assessment of the presence of hazards;
- the survival or multiplication of important microorganisms;
- the production or persistence of toxins, chemical or physical agents in food; It is,
- the conditions that cause the above factors.

Principle 2. Determination of Critical Control Points (PCC). CCPs are food preparation and cooking stages that must be controlled to ensure food safety. There may be more than one CCP in which measures are applied to control the same hazard. The determination of PCC in the HACCP system can be facilitated by applying the decision tree methodology, which presents a logical reasoning approach.

Principle 3. Establishment of critical limits for each PCC.

For each PCC, critical limits must be specified and validated. Frequently used criteria include measurements of temperature, time, moisture content, pH, available chlorine, as well as sensory parameters such as appearance and texture.

Principle 4. Establishment of a monitoring system for each PCC.

Monitoring is the measurement or scheduled observation of a CCP relative to its critical limits. Monitoring procedures must be capable of detecting loss of control at the PCC. Furthermore, monitoring should preferably provide this information in time for the necessary adjustments to be made to ensure process control, avoiding violation of critical limits. When possible, processes should be adjusted when monitoring results indicate a trend toward loss of control at a CCP. If monitoring is not continuous, the monitoring frequency must be capable of guaranteeing CCP control.

Principle 5. Establishment of corrective actions. Specific corrective actions must be established for each CCP in the HACCP system for the purpose of dealing with deviations when they occur. Actions must ensure that control of the PCC is regained.

Principle 6. Establishment of verification procedures. Verification and audit methods, including random sampling and analysis, can be employed to determine whether the HACCP system is functioning correctly. The frequency of verification must be sufficient to confirm that the HACCP system is operating effectively.

Principle 7. Establishment of documentation and maintenance of records.

To apply the HACCP system, it is essential that record keeping is efficient and correct. Documentation and record keeping must be tailored to the nature and size of the ship.

Attention: Training programs must be regularly reviewed and updated whenever necessary. The procedures defined in the PSA must be strategically located to ensure that food handlers are continually training to maintain food safety and suitability.

4.1.3 Selection of suppliers

Raw materials, ingredients and packaging must be stored in a clean and organized place to ensure protection against contaminants. They must be adequately packaged and identified, and their use must respect the expiration date. For foods exempt from the mandatory indication of the expiration date, as they are not potentially dangerous, the order in which they are placed must be observed.

Ship owners (or designated crew members) must be responsible for selecting and controlling food suppliers and receiving products to ensure they meet quality parameters.

Companies that transport food must, prior to the operation, complete registration and keep it updated at the ANVISA station at the supply port.

Compliance with good food storage, transport and supply practices must be verified.

The list of food suppliers (ranch) registered by the Brazilian authorities can be consulted locally with the health authority at the port of call.

4.1.4 Food supply

4.1.4.1 Physical installations

The physical structure in the food reception area must:

- be kept intact, preserved, free from cracks, leaks, leaks, infiltrations, mold, peeling, among others;
- be free from disused or foreign materials (cardboard boxes, cloths, paper, sanitizing products, plastic bags, pallets, brooms, etc.);
- present natural or artificial lighting that does not compromise food hygiene, does not change colors, and allow good working conditions;
- have electrical installations properly covered and isolated; It is
- have ventilation to avoid excessive heat, condensation of vapors and the accumulation of fungi, molds, gases and smoke and protected to prevent access by vectors.

This area should be cleaned routinely. When food is supplied, the area must be sanitized (cleaned and disinfected) immediately before food enters. The use of disinfectants must be carried out respecting the concentration and contact time recommended by the manufacturer.

Food must not enter where solid waste is removed. If it is completely impossible to have different areas, different times must be defined and the area must always be sanitized before supplying food.

The operational flows for unloading waste (from the storage area to the exit door), and receiving food (from the entry door/gate to the storage areas) must be designed and executed in a way that minimizes the risk of cross contamination.

Integrated pest control actions must be implemented in this area in accordance with the guidelines described in the specific chapter of this Guide.

4.1.4.2 Receipt conditions

Workers responsible for receiving/supplying food must maintain the same personal hygiene specified for food handlers.

The receipt of raw materials and ingredients must be carried out in a clean and protected area.

The packaging of products, raw materials and ingredients must be intact and in good hygiene conditions.

Packaging that could contaminate food or carry vectors – e.g. cardboard, paper, wood – must be carefully inspected when supplying and changed if necessary, especially fruit, vegetable and foliage packaging.

Processed foods packaged only in primary packaging must be cleaned before storage.

It is recommended to sanitize fruits and vegetables (cleaned and disinfected) with the use of chemicals or other efficient systems before storage. However, if this is not possible, all fruits and vegetables must be sanitized before entering the food preparation areas (cutting area, combining with other ingredients or cooking area).

Food storage temperatures must be in accordance with the manufacturer's recommendations. The validity and integrity of food must be checked upon entry to the ship and recorded in spreadsheets (as specified in the vessel's PSA and HACCP), including a description of corrective actions in cases of irregularities.

If there is no alternative indication from the manufacturer, upon receipt, the food temperatures must be:

- below or equal to 7°C (45°F) if refrigerated;
- above or equal to 60°C (140°F) for potentially hazardous foods that have been cooked and will be received warm; It is
- heavily frozen in the case of frozen foods, without signs of previous defrosting.

After reception, foods that present greater vulnerability in terms of maintaining their physical-chemical and organoleptic characteristics, must be, as soon as possible, stored in a way to minimize temperature abuse.

Fresh fish must be chilled, stored on ice, and kept at temperatures below 5°C.

Dairy products should only be received if processed, whether liquid, frozen or dry.

Eggs should preferably be pasteurized and if they are received fresh, they must be clean and intact. The crew members responsible for approving the receipt of eggs must be very strict with the quality and safety of this food (preservation and transport temperatures, cleaning, shell integrity, humidity, etc.).

Ice supplied for use in food should only be accepted if produced from drinking water.

For products such as molluscs and shells that are offered for consumption without undergoing the cooking process, the following procedures must be observed: 1) they must be packaged in non-recycled, clean and intact packaging; 2) they must be free of silt, mud and encrusted animals. Products with these contaminations must be discarded upon receipt.

Packaging or containers of seafood, fish and other edible animals (fish, crustaceans, molluscs, frogs, turtles, etc.) must be identified with the product name, expiration date and batch.

Those responsible for the activity must ensure that fresh fish has:

- firm, well-adhered, moist skin without the presence of blemishes;
- bright and prominent eyes;
- scales joined together, shiny and strongly adhered to the skin;
- gills (gills) with a color ranging from pink to intense red, being shiny and without viscosity.

Crustaceans must have the color specific to the species and not have an orange or black color on the carapace. Octopuses and squid must have consistent and elastic meat, with a characteristic odor.

All fish must be free from contaminants (such as sand, pieces of metal, plastic, fuel, soap and flies).

Dried fish must be free from mold, eggs or fly larvae, dark or reddish spots, superficial slime, softening and an unpleasant odor.

Food must be obtained from authorized sources that meet municipal, state and federal standards in the country of manufacture. Food produced by hand and without labeling is not accepted.

Batches of raw materials, ingredients or packaging that are rejected or expired must be immediately returned to the supplier and, if this is not possible, they must be duly identified and stored separately for later disposal.

In order to eliminate the risk of cross-contamination during the food reception operation, workers involved in the activity must wash their hands whenever they finish loading risky foods (for example, seafood or meat or chicken or fruits/vegetables) and before start another class of food.

4.1.4.3 Records

The health safety and quality of food must be checked upon receipt, and this control must be recorded in spreadsheets/logs (as specified in the ship's Food Safety and HACCP Plan), including a description of the corrective actions taken in cases of failures. . This record must contain the following basic information: date of receipt, supplier, transport vehicle license plate, product name, quantity (kg, lt or other quantity), batch, expiration date, approval or rejection, corrective actions and the crew member's signature.

In the case of perishable food, the record must be completely completed and contain, in addition to the information above, the temperatures of the food received and inside the vehicle.

Records already standardized by cruise companies must meet these requirements, noting missing information in the observation or other available field.

The ship must keep these records on board throughout the season in Brazil.

Stem thermometers (used to measure the internal temperature of food) must be sanitized after each use, specifically the thermometer stem must be washed completely with hot water and soap or another efficient sanitizing method. This equipment must always be protected from contamination.

4.1.5 Food storage

4.1.5.1 Physical installations

Storage areas must have floors, walls, doors, lighting, electrical installations, ventilation, equipment, furniture and utensils in good hygienic and sanitary conditions (good condition, maintenance, and clean and dry).

All furniture, equipment, utensils and buildings must have surfaces that allow adequate hygiene, that is, shelves, shelves, etc. They must be made of washable materials and always be intact, without gaps, rust, cracks, holes, etc.

Food products must be stored on pallets, pallets and/or shelves, respecting the minimum spacing (floor, walls and ceilings) necessary to ensure adequate ventilation, circulation, cleaning, and, when applicable, disinfection of the location. Furthermore, they cannot be exposed to splashes, dirt or other contamination.

Food cannot be stored in: toilets, bathrooms, changing rooms, corridors, waste rooms, mechanical rooms, under stairs, areas with condensation, or in any other location that is not specific for this purpose.

The surfaces of equipment, furniture and utensils used in packaging, storing and transporting food must be smooth, impermeable, washable and free from roughness, cracks and other imperfections that could compromise their hygiene and be sources of food contamination.

Primary packaging (which comes into direct contact with food) must be made of washable, impermeable materials that do not transmit toxic substances, odors or flavors to the food.

Refrigerators and air conditioners must be in perfect condition of cleanliness, conservation and operation, so as not to cause drips or areas of condensation inside the storage chambers or on the food. Vector and pest control measures must be adopted in these areas, as set out in the specific chapter of this manual.

4.1.5.2 Food quality and control

All stored raw materials, ingredients and food products must have their expiration dates or information on their packaging, such as numbers, codes and other references that allow their expiration date to be obtained through technical or commercial documents. The documents available on board that are used to prove the expiration dates of products must have unequivocal and specific links with the products actually

stored, without which the goods must be kept segregated and unavailable while the ship remains in the Brazilian territorial sea. Terms such as *used by* and similar, present on the labels of many foods from other countries, designate their expiration dates, therefore equivalent to national terms commonly used for this purpose.

Despite this, it is not required to indicate an expiration date for:

- Fresh fruits and vegetables, including potatoes that have not been peeled, cut or otherwise treated analogous form;
- Wines, liqueur wines, sparkling wines, aromatized wines, fruit wines and wines fruit sparkling wines;
- Alcoholic drinks containing 10% or more alcohol;
- Bakery and confectionery products that, due to the nature of their content, are generally consumed within 24 hours of its manufacture;
- Vinegar;
- Solid sugar;
- Sugar-based, flavored and/or colored confectionery products, such as: candies, caramels, confectionery, pastilles and the like;
- Bubble gum; It is
- Food grade salt (do not use enriched salt).

Products whose expiration dates have expired are considered unfit for consumption and must be discarded.

In the case of products labeled with the expression "best before" or equivalent terms used to indicate their minimum and not maximum durability dates, extrapolation of the date on the label implies segregation and unavailability of these goods while the ship remains in Brazilian territorial sea, as long as that they are not highly perishable foods with a high risk of microbiological contamination, since the term "best before" is inappropriate for this type of product and exceeding the indicated date requires the immediate destruction of these foods.

In the case of products labeled with the expression "best before" or equivalent terms used to indicate their minimum and not maximum durability dates, extrapolation of the date on the label implies segregation and unavailability of these goods while the ship remains in Brazilian territorial sea, as long as that they are not highly perishable foods with a high risk of microbiological contamination, since the term "best before" is inappropriate for this type of product and exceeding the indicated date requires the immediate destruction of these foods.

In storage areas, there must be procedures to control food expiration dates, such as: First in, first out (PEPS rule) or First out, first out (PVPS rule).

This control must be formally described, and can be done through color coding, barcode reading, spreadsheets, among others. If spreadsheets/logs are used, they must contain the following minimum information: product identification, manufacturing date, expiration date, entry and exit date from the storage location.

When raw materials and ingredients are not used in their entirety, they must be adequately packaged and identified with, at a minimum, the following information: product designation, fractionation date, expiration date and batch (if applicable) after opening or removed from the original packaging.

Food products must be checked periodically to check for signs of quality and safety (odor, texture, stains, etc.) that may cast doubt on the sanitary quality of the food.

Food must be protected against contamination, always being packaged, covered and in dry, clean places, not exposed to dust, splashes or other possible contamination.

Products must be located at a safe distance from the floor, to allow adequate air circulation, cleaning and disinfection of areas (recommended distance of 15 centimeters - six inches - above the deck).

Food must be stored separated by type or group, that is: drinks, canned goods, bulk products, ready-made foods, raw foods and so on.

The storage of food and disposable products for use in any of the food production and distribution stages together with chemical, cleaning, hygiene and perfumery products is not permitted.

These products must be stored in exclusive cabinets/rooms and must be sanitized in specific locations for this purpose.

4.1.5.3 Temperature control

All storage chambers must have thermometers in a visible location and in perfect condition, clean and functioning.

Food temperatures must be checked periodically and recorded in spreadsheets (may be electronically) as specified in the vessel's PSA and HACCP, or according to the model suggested below:

Bedroom/Storage Room:			Month year:		
Data	Morning	Afternoon	Night	Corrective actions	Signature

Record the temperature found in the morning, afternoon and night column.

Storage chamber temperatures must respect the limits defined below:

- Refrigerated foods: 5°C (41°F) or below
- Frozen food: -18°C (0°F) or below
- Dry foods: up to 25 °C (71.6 °F and 77 °F)

Whenever temperatures are outside the limits mentioned above, those responsible must take corrective actions and record them, as specified in the ship's PSA and HACCP.

4.1.6 Kitchens

4.1.6.1 Buildings, installations, equipment, furniture and utensils

All kitchens, including any food preparation area, such as grills, pizzerias, cafeterias, must be kept with floors, walls, doors, lighting, electrical wiring, ventilation system, equipment, furniture and utensils in good hygienic and sanitary conditions (conservation, maintenance and hygiene).

Floors, walls and ceilings must have smooth, waterproof and washable surfaces. They must be made of anti-corrosion materials that cannot contaminate food, and kept intact, free from cracks, cracks, leaks, mold, peeling, among others.

Furniture, utensils and installations must be made of durable, corrosion-resistant materials, free from seams, cracks or fissures, allowing for adequate hygiene.

Surfaces that come into direct contact with food must be smooth and must not allow the migration of harmful substances or transmit colors, odors or flavors to them. The materials that make up such surfaces must be durable, resistant, and impermeable, in order to facilitate cleaning, and withstand repeated cleaning processes.

Natural or mechanical means of ventilation must be designed and constructed so that air does not flow from contaminated areas to clean areas and, when necessary, must be sanitized. System maintenance must be carried out to ensure its correct functioning. It is recommended that ventilation is sufficient so that the temperature of the cooking areas does not exceed 30°C (86° F) and 22°C (71.6° F) in the pre-preparation areas of meat (poultry, fish, fruits and vegetables). sea, cattle, etc.).

Ventilation must ensure air renewal and maintenance of the environment free from fungi, gases, smoke, dust, suspended particles, vapor condensation, etc.

Venetian blinds, exhaust fans or similar must be easily removable for cleaning.

An adequate lighting system, whether natural or artificial, is necessary to allow food to be produced safely.

Fixtures must be protected against breakage and explosions to ensure that food is not contaminated.

The size and layout of kitchens must be compatible with all operations. There must be separation between different activities by physical barriers or other effective means to avoid cross-contamination.

Doors must be kept well adjusted to the frames. It is recommended that doors to kitchens and food storage areas be provided with automatic closing. If there are external openings in food preparation areas, they must have barriers or mechanisms to prevent vector access.

Other measures to control vectors and urban pests must be adopted in this area as set out in the specific chapter of this manual.

The drains must be siphoned and the grates must allow them to be completely closed.

All kitchen waste that may contain oils or fats must be directed to grease traps before unloading or removing from the vessel. The collected fat can be incinerated, stored or dumped.

The size of the grease traps must be compatible with the volume of waste (with fat) produced in the kitchen. The boxes must be located outside the preparation areas and kept in adequate hygiene and conservation conditions.

The internal areas of the kitchens must be free of objects foreign to operation or in disuse, such as dusters, brooms, etc.

Bathrooms and changing rooms must not communicate directly with kitchens, restaurants or food storage areas, and must be organized and maintained in adequate hygiene and conservation conditions. External doors should be equipped with automatic closing whenever possible.

4.1.6.2 Hygiene of physical facilities, equipment and utensils

Equipment and utensils cleaning operations must be carried out by qualified personnel and frequently supervised to ensure quality is maintained and minimize the risk of food contamination. Those responsible for cleaning activities must wear appropriate and clean uniforms. These uniforms must be different (color or identification) from those used by food handlers.

Precautions must be taken to avoid contamination of food by sanitizing chemical products (suspension of particles or formation of aerosols).

Odorizing and deodorizing products or any of their forms must not be used in food preparation and storage areas.

The dilution, contact time and method of use/application of sanitizing products must be strictly followed, according to the manufacturer's recommendations. Sanitizing products must be identified and stored in a place reserved for this purpose.

Note: To clean kitchen equipment and utensils, gloves must be used to ensure employee safety, which must be used exclusively for this purpose.

4.1.6.2.1 Manual process

In systems for manual cleaning of equipment and utensils, a sink with at least 3 (three) compartments must be provided. Compartments must be large enough to allow full immersion of the largest equipment and utensils available. If there is equipment or utensils larger than the washing sink, a washing machine or alternative equipment

must be used. The water in each tank must be replaced whenever necessary to guarantee the hygiene, efficiency and effectiveness of the washing method (the frequency of this change must be described in the PSA).

If hot water is used for disinfection in manual sanitizing systems, the disinfection compartment must be designed with an integral heating device that is capable of maintaining the water temperature at a minimum of 77 °C (171 °F).

Easy-to-read temperature measuring equipment must be available in manual sanitation tanks.

In manual sanitation systems, a rapid test kit or other device for measuring the concentration of disinfectant solutions (in mg/L or ppm) must be provided.

If sanitizing dispensers are used, they must be in adequate working conditions, meeting the specificity, guidance and purpose of use provided by the manufacturer.

The use of steel wool (or any other utensil that could put consumers at risk) to clean/wash equipment and utensils is not permitted.

4.1.6.2.2 Mechanical process (washing machine)

Washing machines used to sanitize dishes, utensils, crockery and equipment must be in sufficient quantities and suitable for safe and effective disinfection, and be maintained in good hygiene and conservation conditions.

In washing machines, temperature measuring equipment must have a numerical scale or have printed records or digital reading.

Washing machines must be equipped with an identification plate affixed to the equipment by the manufacturer, with instructions on how the machine works and operational specifications such as:

- (1) Temperature required for all cleaning steps;
- (2) Pressure required for water disinfection;
- (3) Conveyor speed or cycle time, depending on machine type.

Utensil washing machines and rinse tanks must be equipped with baffles, curtains or other means of minimizing internal cross-contamination of washing and rinsing solutions. The entire system must be maintained in adequate hygiene and maintenance conditions.

The washing temperature of equipment/utensils must be maintained in accordance with the manufacturers' guidelines.

Conveyor trays, dish racks or dryers, or storage areas for dirty utensils and equipment must be large enough to accommodate all clean and dirty items that may accumulate during hours of operation. Drying of utensils and equipment must be carried out naturally, and the use of unsafe drying systems, such as dishcloths, is not permitted.

Washing areas/machines for equipment and utensils coming from kitchens must be physically separated from those used to sanitize equipment and utensils coming from restaurants and cafeterias (forks, knives, etc.). If physical separation is impossible, the vessel must alternate the time of use of washing areas/machines in order to minimize cross-contamination.

4.1.6.3 Food preparation

All food preparation (from receipt to consumption) must be planned and conducted in order to minimize the risk of cross-contamination.

The number of handlers, equipment, furniture and utensils available must be compatible with the volume, diversity and complexity of the food produced.

Fruits and vegetables that will be served raw must be completely sanitized, using water and specific sanitizers, to remove dirt, pathogens and other contaminants before being transported to food preparation areas (pre-preparation - cutting, mixing or assembly area) .

Exemptions from this requirement are those fruits or vegetables that are not potentially dangerous foods, in the state in which they will be served.

This cleaning must be carried out in areas exclusive for this purpose. If an exclusive area is not possible, procedures related to the execution of activities at different times must be adopted and the area must be sanitized before any procedure involving the cleaning and disinfection of fruit and vegetables.

Sanitizing products must be used exactly as described by their manufacturers, especially with regard to concentration and necessary contact time. The frequency of changing the chemical solution must be carried out in order to maintain the recommended concentration and hygiene.

Raw foods, especially meat, must remain effectively separated, either physically or by preparation time, from ready-to-eat foods, including effective cleaning and disinfection of the preparation area, when necessary. Surfaces, utensils, equipment and accessories must be thoroughly cleaned and disinfected after handling raw meat.

Foods from different classes must be pre-prepared in:

- different rooms; or
- in the same room, but at different times; or
- in the same room simultaneously if there are physical barriers separating them, including separate washing and purging facilities.

Meat pre-preparation rooms must observe the criteria of time and temperature, with the maximum stay during handling being 30 minutes at a temperature less than or equal to 22 °C.

Equipment, utensils and surfaces that come into contact with foods from different classes must always be cleaned and disinfected at the end of handling a specific class of food, before being used again.

Frozen products must be defrosted, as described below, before being cooked, except in situations where the manufacturer recommends an alternative procedure.

The food defrosting process must be conducted in such a way as to prevent food surfaces from encouraging microbial multiplication. Therefore, this defrosting must occur at a temperature below 5°C in a refrigerated chamber or in a microwave oven, when the food is immediately subjected to cooking.

In the defrosting process, effective temperature control mechanisms must be adopted.

The equipment used for defrosting (refrigerators, coolers, etc.) must be different from that used for general product storage.

Thawed food must be kept refrigerated if it is not used immediately.

In this situation, food cannot be re-frozen.

Food in the defrosting process must remain packaged or protected, and it is not permitted to defrost food using water immersion methods.

Raw materials and ingredients, when not used in their entirety, must be properly packaged and identified with, at least, the following information: date of fractionation, product name and expiration date after opening or removing the original packaging.

All food (ready for consumption or in preparation) must remain, at all stages of preparation, protected against contamination by foreign bodies, such as glass or metal fragments, dust, smoke and harmful chemicals, especially after maintenance work.

Heat treatment must ensure that all parts of the food reach a temperature of at least 70 °C (158 °F). Lower temperatures can be used in heat treatment as long as the time and temperature combinations are sufficient to ensure the hygienic-sanitary quality of the food.

After preparation, food must be kept under controlled time or temperature conditions that do not favor microbial multiplication. Hot preserved foods can be kept at temperatures above 60°C (sixty degrees Celsius) for up to 6 (six) hours. Food served cold must be kept

at temperatures below 5°C for up to six hours. If only time is used as a public health control, hot/cold food must be exposed for a maximum of 4 hours, counting from the time of completion of food preparation or from the time the food is removed from the storage unit (hot or cold). , therefore from temperature control) until the moment of consumption. For storage under refrigeration or freezing, food must first be subjected to a controlled cooling process. Ready-to-eat foods must be kept refrigerated for a maximum period of 5 days until consumption.

The cooling process of a prepared food must be done to minimize the risk of cross-contamination. The temperature of the prepared food must be reduced from 57°C (135°F) to 21°C (70°F) within two hours. It must then be cooled from 21°C (70°F) to 5°C (41°F) within 4 hours.

Food handlers must avoid direct or indirect contact between raw, semi-prepared and ready-to-eat foods throughout the food preparation chain, including within equipment such as: blast-chillers, refrigerators, transport containers, etc.

Prepared foods kept under refrigeration or awaiting transport must be protected and identified at least with the product description, date and time of preparation and expiration date.

The storage and transport of hot prepared foods must occur under conditions of time and temperature that do not compromise their quality and health safety. The temperature of prepared food must be monitored and recorded at all times (preparation, refrigeration, transport and display).

Remember

Hot prepared foods must be kept under controlled time or temperature conditions that do not promote microbial growth. Hot foods should be held at temperatures above 60°C (140°F) for up to 6 hours, or for a maximum of 4 hours if time is the only public health control. Attention!!!! Prepared hot foods that are not labeled or are outside the time or temperature limits should be discarded.

The storage and transportation of refrigerated foods must occur under temperature conditions that do not compromise their quality and safety. When the control choice is temperature, food must be kept at a temperature below 5 °C (41 °F), which must be monitored and recorded during all times of storage and transport.

Prepared food transport equipment must be clean and protected against vectors and urban pests and be exclusive for this transport.

Elevators used to transport raw or prepared food must preferably be exclusively for this purpose and must be maintained in satisfactory hygiene and conservation conditions. If it is not possible to maintain an exclusive elevator, food transport must occur at a different time from other transport and after the elevator has been sanitized.

The oil and fat used for frying foods cannot be a source of chemical contamination of prepared foods. Oils and fats used must be heated to temperatures not exceeding 180 °C (356 °F), and must be replaced immediately when any obvious change in physical, chemical properties or sensory patterns, such as aroma and flavor, or intense production occurs. of foam and smoke. Discarded oils and fats should not be used again in food preparation areas. The date of disposal and the person responsible must be registered.

The ice production, handling, storage and transportation process must ensure its protection against contamination.

Ice machines must be in perfect hygiene, conservation and operating conditions. Ice used in food, including that used for its preservation, must be manufactured from drinking water and maintained in a hygienic-sanitary condition that prevents contamination.

Utensils that come into direct contact with ice must remain protected against contamination, and their use and storage must guarantee the health safety and quality of this product.

4.1.6.4 Food handlers

The crew member responsible for food preparation activities on board the vessel must ensure compliance with all measures described below.

Food handlers must be periodically supervised and trained in personal hygiene, safe food handling and foodborne illnesses. Training must be recorded and controlled by the ship operator or designated officer, and records must be kept on board.

Food handlers must have the skills and knowledge necessary to prepare food safely in their area of activity.

Waiters, maitres and other professionals who enter production areas must also comply with the hygiene and health requirements established for food handlers.

Food handlers must:

- Take all possible measures to ensure that nothing on the body or clothing contaminates the foods;
- Take all possible measures to avoid unnecessary contact with ready-made food for consumption
- Shower daily, keep teeth brushed and nails short without applying nail polish;
- Make sure that clothes and aprons are always clean,
- Keep hair clean, brushed and protected by nets or caps;
- Shave daily (beard and mustache);
- Remove all personal items, such as necklaces, amulets, bracelets, earrings, watches, piercing, among other accessories;
- Avoid using cloth or plastic as an apron;
- Avoid carrying pens, pencils, lipsticks, brushes, cigarettes, lighters, watches, etc. in your uniform. (waiters and similar are allowed to carry pens or pencils); It is
- Do not eat, sneeze, blow, cough, spit or smoke near food or work surfaces, food handling

To keep their hands and forearms always clean, handlers should wash them frequently according to the following guidelines:

- Wet your hands and forearms with water;
- Apply a good amount of liquid soap;
- Rub your hands for about 20 seconds, including between your fingers and the back of your hands;
- Rub your forearms;
- Rinse your hands and forearms;
- Dry your hands with paper towels (made from non-recycled paper);

- Use paper towels to turn off the tap (if necessary) and open the door; It is
- Throw used paper into the trash can.

Brazilian health authorities do not require food handlers to wear gloves or masks during food preparation, and also recommend that these equipment not be used.

When using gloves, extreme care must be taken to avoid contaminating food, using them only during continuous tasks and discarding them afterwards. Gloves should be replaced with a new pair before handling other foods or ready-to-eat foods and after handling raw foods. Gloves should be removed, discarded and replaced after using the bathroom, smoking, coughing, sneezing, eating, drinking or touching your hair, scalp or body.

Preferably, use utensils (spoons, tongs, spatulas) to handle food. If you choose to use gloves, without the use of utensils, this use must be restricted to situations involving:

- ready-to-eat foods that have already undergone some type of heat treatment (for example, cooked, roasted or fried foods);
- ready-to-eat foods that will not be cooked;
- fruits and vegetables that have been properly sanitized.

SUGGESTED CONTENT FOR POSTER OR INFORMATION FOR FOOD HANDLERS:

Get used to washing your hands several times A DAY! And always before:

- enter the food preparation or storage area;
- change activity;
- handle food;
- touch sanitized utensils;

And always after:

- using the toilet;
- coughing, sneezing or blowing your nose;
- touch your nose, hair and other parts of your body;
- use or touch brooms, cloths, cleaning materials;
- take money, cigarettes, pens, watches, etc.;
- smoke;
- collect garbage and other waste;
- touching bags, boxes, bins, bottles and shoes;
- any interruption of service;

- touching discarded food; · use the cellphone.

During manipulation or any other operation, wash your hands several times a day.

In general, the personal habits of food handlers are very important to avoid food contamination. Therefore, the actions listed below are not permitted within preparation areas, to avoid food contamination:

- talk, sing, whistle, cough or sneeze over food;
- chewing gum, toothpicks, matches or similar;
- sucking candy or eating;
- taste the food with your hands or with the same utensil used to stir the food;
- blow your nose, put your finger in your nose or ear, touch your hair or comb your hair;
- wipe off sweat with your hands, clothes or clothing;
- deal with money;
- smoke;
- touch door handles with dirty hands;
- touching trash can lids; It is
- use dirty utensils and equipment.

Note1: When sneezing or coughing, protect your mouth with a tissue or your forearm and never use your hands.

Note2: Sweat must be dried with the help of a disposable paper towel and then hands must be washed.

Note3: After washing your hands, antiseptis (which promotes microbial reduction) can be done by applying a 70% solution or alcohol gel.

Note4: Rubber gloves must be used to clean kitchen equipment and utensils, which must be used exclusively for this purpose.

Note5: Steel mesh gloves (cutting gloves) are recommended as a safety item for cutting raw meat, chicken, etc. It is not recommended for handling ready-to-eat foods due to the difficulty of cleaning. When extremely necessary in this activity, it must be exclusive, properly cleaned, and always covered with disposable gloves. After use, it must be washed with detergent, rinsed with water and disinfected by immersing it in boiling water for 15 minutes. Store in protected containers in clean, dry cabinets/places.

Note6: Gloves used in the bakery as personal protective equipment for food handlers, to protect against high oven temperatures, must be kept clean and sanitized and changed whenever necessary.

4.1.6.4.1 Health of handlers

Any problem related to the handlers' health, such as injuries to the hands, nails or skin, or diseases of the digestive system (e.g. diarrhea) or respiratory system (e.g. runny nose, cough), must be reported to the on-board medical team, as soon as possible. that these problems can lead to food contamination.

Handlers and other crew members related to the food area who present blisters, open wounds, inflamed bruises, diarrhea, jaundice, fever, vomiting, sore throat with fever, runny nose or cough, after evaluation by the medical team, must be removed from work . The vessel's doctor or equivalent is the professional responsible for evaluating handlers away from the activity and authorizing them to return to their regular duties, through a written statement addressed to the officer responsible for the area.

Written or electronic records of these restrictions and releases must be kept on board the vessel for 6 (six) months.

4.1.6.5 Washbasins and toilets

Washbasins must be present in sufficient numbers and strategically located so that they are not used for any function other than hand washing.

Each food handling area (cafeterias, cafeterias, pizzerias, kitchens, pre-preparation areas, etc.), utensils and equipment hygiene area and solid waste processing and treatment area must have at least one facility for washing food. hands and this sink must be strategically installed to avoid cross-contamination.

Handwashing facilities must also be present within or immediately adjacent to restrooms and changing rooms.

Handwashing sinks must be operated without manual contact, and maintained in good hygiene and operating conditions. All washbasins must

be equipped with odorless liquid soap, paper towels and non-manual waste collectors (trash bins) that allow adequate sealing.

A sign to “wash your hands frequently” or similar in a language that workers understand must be posted above hand washing stations, as well as pictures or illustrations explaining the correct way to wash hands (see above).

Toilets for use by food handlers must be conveniently located and maintained in good hygienic and functional conditions.

4.1.6.6 Solid food waste management

It is important to define the flow and volume of waste produced in each preparation area, in order to have a planning basis to avoid possible environmental contamination. Those responsible for waste management must wear personal protective equipment, including nitrile or rubber gloves, masks, goggles, safety boots and appropriate protective clothing.

The frequency of removing solid waste from bins must be proportional to the volume of waste generated in the area.

Food preparation areas must have non-manual trash bins. These bins can only remain open during food handling activities, and are immediately closed at the end or breaks in the activity.

Waste must be frequently collected and stored in a closed and isolated place from the food preparation and storage area, in order to avoid sources of contamination and attraction of vectors and urban pests.

All ships must be equipped with facilities (waste room) for the safe storage of organic food waste. This waste must be collected and stored in containers made of impermeable material, easy to clean, and equipped with lids that provide total sealing.

Containers must be located in rooms/places specifically built, air-conditioned and used for this purpose. After each emptying, containers must be carefully cleaned and disinfected to avoid odors and attraction of rodents, flies and cockroaches. These containers must always remain closed, except when necessary for cleaning.

Elevators used to transport solid waste must preferably be exclusive to this activity. If it is shared with the movement of food, the risks of cross-contamination must be minimized. In this case, it is essential to define times of use, define site hygiene after each waste transport operation and control measures to monitor these operations.

4.1.7 Distribution areas (restaurants and cafeteria)

4.1.7.1 Physical installations

All these areas must be maintained in satisfactory hygienic and sanitary conditions and free from health risk factors.

The prepared food display equipment, in the consumption area, must have protective barriers that prevent contamination due to the proximity or action of the consumer and other sources. In self-service systems, exposed food must be protected from any contamination through the use of salivary protection barriers.

Self-service systems (hot or refrigerated units) or buffets must be provided with appropriate utensils or dispensing methods that protect food from contamination. The use of these systems must be monitored by crew trained in food safety.

Self-service counters must be properly sized and in a good state of cleanliness, conservation and operation. The temperature of these equipment must be regularly monitored and recorded.

In self-service systems, cutlery must be made available individually to travelers, packaged in disposable wrappers or clean napkins.

Food distribution areas (restaurants, cafeterias, etc.) must be organized and maintained in satisfactory hygienic and sanitary conditions. The equipment, furniture and utensils available in these areas must be compatible with the activities and must be kept clean and in good condition.

Plates, glasses, cups, mugs and others must be properly cleaned and protected.

Industrialized seasonings and sauces must be kept at the temperatures recommended by the manufacturer at all times and be properly stored, whether in their original containers or in other containers, to ensure their protection against contamination.

Seasonings and sauces produced on board, made with mayonnaise, must be in suitable containers, protected at all times and kept refrigerated.

Ornaments and plants located in the consumption area or cafeteria must not constitute a source of contamination for prepared food.

The handling, assembly, display and offering of food in external areas (decks, swimming pools, etc.) must meet the time, temperature, packaging, protection and hygiene criteria set out in the specific Chapter of this Guide. Physical facilities and equipment must also be suitable for the type of food produced in these areas.

After being exposed to consumption or after being placed on a self-service counter, unused food cannot be offered for human consumption again and must be discarded.

Utensils that come into direct contact with ice must remain sanitized and protected from contamination, and their use and storage must guarantee safety and quality.

Ice used as a cooling medium for external food surfaces such as fruit, beverages and seafood cannot be used as food.

Packaged food cannot be stored in direct contact with ice or water if this packaging allows water to enter.

4.1.7.2 Exposure temperature time

Temperatures (hot and cold foods) must be monitored and recorded throughout the exposure period (the frequency of this verification must be defined by those responsible for the vessel, so as to guarantee temperature maintenance at all times), including date and time information and temperature. These records must remain on board throughout the season in Brazil.

Food must be kept throughout the exposure period under conditions of time and temperature that guarantee food safety:

- hot foods: above 60 °C for a maximum of 6 hours of exposure; It is
- refrigerated foods (salads, split fruits, drinks split from the original packaging, cold cuts, puddings, pavés, mousses, sauces, among others): below 5 °C, which can vary up to a maximum of 8 °C.

Attention: Food that falls outside these temperature and time limits described above must be discarded. The person responsible for the sector must be trained and qualified to check the temperature of food routinely, immediately taking all necessary measures to discard food that is outside the recommended temperature.

If only time is used as a public health control, hot/cold food must be exposed for a maximum of 4 hours, counting from the time of completion of food preparation or from the time the food is removed from the storage unit (hot or cold). , therefore from temperature control) until the moment of consumption. Seasonings and sauces produced on board vessels must always be temperature controlled.

4.2 Drinking water

4.2.1 Supply and production

When there is a supply of water for human consumption, the vessel must ensure that the water offered by the port or supply vehicle meets the potability criteria required by the relevant federal health legislation.

The vessel must request a copy of the most recent physical, chemical and microbiological report at each port or supply vehicle, before starting supply, to verify that this water meets potability standards (a recent microbiological report means one in which the collection of water was carried out in the last 30 days or less). This report must contain, at a minimum, the analysis of thermotolerant and total coliforms.

If a report is not available, water samples may be collected and analyzed by the vessel. The vessel's laboratory must be qualified in terms of technical responsibility, sample collection, packaging and transport procedures, as well as analytical methodologies used, which must comply with the most recent national or international standards, such as those mentioned in Article 22 of Ordinance 888 /2021.

Quick test to measure residual chlorine and pH must be carried out before refueling to verify its compliance with those recommended by health legislation. These tests must be recorded, maintained and available to the health authority, on the vessel, for 3 months. When supplying by boat, the water must contain a minimum free residual chlorine content of 2.0 mg/L (ppm) and, preferably, a pH between 6 – 8.5. For hydrant supply, free residual chlorine values in the range of 0.2 to 2mg/L and pH between 6 and 9.5 are acceptable.

Water for human consumption can be produced on board, by any system or method that guarantees quality, however, water collection and equipment operation cannot be carried out in polluted areas, ports, anchorages, etc.

4.2.2 Drinking water system

The drinking water system plan must be available to the health authority, whenever requested, electronically or in printed form.

Crew members responsible for the maintenance/operation of the drinking water system must collect water samples to carry out physical-chemical and microbiological analyses.

During supply or production, water for human consumption must be continuously chlorinated using an automatic chlorination system, maintaining at least 2.0 mg/L (ppm) of free residual chlorine.

Residual chlorine monitoring must be carried out at least every hour during refueling and at least every 4 hours in the case of onboard production. Records of this monitoring must be kept on board for 12 months and available to the health authority, whenever requested. Records may be stored electronically and presented when requested by the health authority.

4.2.2.1 Reservoirs

Central drinking water reservoirs must be identified by the expression "DRINKING WATER", in a legible size.

Water samples can be collected from reservoirs during sanitary inspection for physical-chemical or microbiological analysis.

Potable water tanks cannot share walls with the vessel's hull or with other non-potable water tanks or other liquids.

The drinking water distribution system must be kept free from cross-connections with other systems containing non-potable liquids, and must be protected against backflow and other forms of contamination by means of anti-reflection devices or air gaps.

All manufacturers' recommendations for maintaining the sanitary safety of drinking water in reservoirs must be followed by those responsible for the vessel. These recommendations must be available for analysis by the health authority.

Drinking water reservoirs and any parts of the drinking water distribution system must be cleaned and disinfected:

- Before starting operation;
- Before returning to operations after repairs and maintenance; or
- Whenever contamination is suspected.

Drinking water reservoirs must be inspected, cleaned and disinfected during docking, whether dry or wet, or annually.

Records of maintenance, cleaning and disinfection activities of the tanks and drinking water distribution system must be kept on board the vessel for 12 months, being available to the health authority whenever requested.

To carry out cleaning and disinfection activities, the recommendations in the VSP Operations Manual must be observed.

Disinfection must be carried out by raising the concentration of free residual chlorine to at least 50 mg/L throughout the reservoir, maintaining this concentration for 4 hours, or through another recognized procedure.

In an emergency, this contact time can be reduced to 1 hour by increasing the free residual chlorine concentration to at least 200 mg/L throughout the reservoir.

The disinfected parts of the system must be flushed with drinking water until the free residual chlorine concentration is $\geq$ 5 mg/L (ppm).

An alternative for washing and disinfecting reservoirs is described below:

- Remove all water from the reservoir;
- Clean all reservoir surfaces, including supply lines, with appropriate detergent;
- Rinse all surfaces of the tank with drinking water, emptying it again;
- Moisten all reservoir surfaces with at least 200 ppm (mg/L) of solution chlorinated (this can be done using new or clean squeegees or brooms);
- Ensure that all reservoir surfaces remain moistened with the solution chlorinated for at least 2 hours; It is
- Fill the reservoir again with drinking water, checking that the free residual chlorine concentration is $\geq$ 5 mg/L (ppm) before releasing the system for use.

4.2.2.2 Ducts and pipes

Drinking water pipelines must be in good hygienic and sanitary conditions and free from potential contamination risk factors. All ducts must be identified with the colors provided for by the International Standards Organization (ISO).

4.2.3 Quality and health safety of drinking water

The reserve unit(s), the distribution system, the hoses and all other components used to provide drinking water on board must be destined

exclusively for this purpose, and remain in satisfactory operational and hygienic-sanitary conditions.

The water offered on board the vessel, when for human consumption, must undergo prior treatment before consumption. When subjected to treatment with chlorine-based products, after disinfection, the water must contain a minimum free residual chlorine content of 0.2 ppm and a maximum of 2 ppm.

The use of another disinfectant agent or another treatment methodology is permitted, as long as the person responsible for the treatment system demonstrates microbiological inactivation efficiency equivalent to that provided for in the relevant legislation.

It is recommended that turbidity in any drinking water storage and distribution system be a maximum of 5 NTU (Nephelometric Turbidity Unit).

All drinking water halogenation devices must be installed and maintained in accordance with the manufacturer's recommendations. Maintenance manuals must be available for consultation.

Monitoring of residual halogen (chlorine or bromine) must be carried out daily at different supply points. Although electronic records are accepted, manual monitoring and recording are recommended to identify and correct potential failures in the electronic system. These records must be kept on board for 12 months.

A minimum of four water samples must be collected and analyzed monthly for the presence of total and thermotolerant coliforms. Sampling locations should be different each month to obtain an accurate representation of the entire drinking water system. It is recommended that one of the samples corresponds to at least one supply point, the furthest from a reservoir. The results of these analyzes must be kept on board for 12 months.

The packaging of products used in the disinfection and treatment of drinking water must have a label with minimum information regarding: identification of the active ingredient, concentration, batch (if applicable), expiration date and manufacturer. The vessel must maintain and make available the technical data sheet (printed or electronically) of the disinfectant product.

Products used in the disinfection and treatment of drinking water must be stored safely, in an identified, ventilated location, with restricted access, separately from other products and their stock must be sufficient for use during the trip.

During the health inspection, the health authority may randomly choose offering points for collection and analysis of drinking water.

Recreational waters (ARC)

The quality of water used for recreation on vessels must comply with the conditions required by relevant federal standards, ensuring its use in a safe manner, without causing harm to the health and well-being of users.

Water used for recreation must have the following physical characteristics:

- clarity such that the deepest part can be seen clearly; It is
- surface free of floating matter and tank bottom free of debris.

The pool can be filled with sea water or drinking water. The pool supply system must have an anti-glare device or other mechanism that prevents contamination of the drinking water system.

4.3.1 Swimming pools with salt water

The pool can only be filled with sea water while the vessel is at least 20 km (12 nautical miles) away from the coast. This supply must be carried out in a

continuous, in order to allow the renewal of the water and with the vessel in motion. If the pool is not emptied before reaching the port, the seawater supply system must be closed 20 km (12 nautical miles) away from the coast and the recirculation system must be used with appropriate filtration and halogenation.

4.3.2 Swimming pools with recirculation

The recirculating water in swimming pools must be filtered. Filters must be maintained and changed according to the manufacturer's instructions. Maintenance, exchanges and backwashing must be registered and available for 12 (twelve) months. The renewal rate (flow rates), pH and turbidity of the re-circulated water it must be monitored and adjusted according to the manufacturer's recommendations.

A log, written or electronic, with results of filter inspections, granular filter sedimentation tests, frequency and duration of backwashing, with date and time of water disposal must be available for inspection.

Filters must be backwashed frequently as recommended by the manufacturers.

The water used in swimming pools, when subjected to treatment with chlorine-based products, must contain a free residual chlorine content of at least 1.0 ppm and a maximum of 7.0 ppm.

The use of another disinfectant agent or another treatment methodology is permitted, as long as a microbiological inactivation efficiency equivalent to that provided for in the relevant legislation is demonstrated.

The halogenation system must be operated under satisfactory conditions and undergo periodic maintenance, in accordance with the manufacturer's guidelines.

The vessel must provide and use a kit to test for residual free halogen. Residual free halogen must be checked every 4 hours during recirculation operation. An electronic halogen-free analyzer can be used to replace the manual test, but it must be calibrated daily. Halogenation and calibration records must be kept on board for 12 (twelve) months.

The pH of pool water supplied with drinking water must be between 7.2 and 7.8, if the halogen used is chlorine and between 7.2 and 8.0, if the halogen is bromine or another disinfectant.

4.3.3 Hydromassage pools and similar

The water used in hydromassages and the like must be filtered. Filters must be maintained and changed according to the manufacturer's instructions. Maintenance, exchanges and backwashing must be recorded and the records must be available for 12 (twelve) months.

In the case of hydromassages, the filters must be backwashed every 72 hours at most, or sooner if drained. In ARCs for exclusive use for babies, backwashing must be done daily.

The operation manual for filtration and halogenation and the diagrams for jacuzzis and similar must be accessible to the crew and health authority.

At the end of each day (1 hour before) the hydromassage water must be recirculated and undergo a halogen shock when the water must be maintained with at least 10 mg/L (ppm) of free residual chlorine for at least 1 hour. Residual chlorine concentrations must be monitored and recorded at the beginning and end of the daily halogen shock.

When subjected to treatment with chlorine-based products, water used for recreation in hydromassage pools must have a free residual chlorine content between 3 mg/L (ppm) and 10 mg/L (ppm). If the halogen used is bromine, the free residual bromine content must be between 4 mg/L (ppm) and 10 mg/L (ppm).

The vessel must provide and use a kit to test for residual free halogen. Residual free halogen must be checked every hour during operation. An electronic halogen-free analyzer can be used to replace the manual test, but it must be calibrated daily. Halogenation and calibration records must be kept on board for 12 (twelve) months.

The PH of the hydromassage water, supplied with drinking water, must be between 7.2 and 7.8.

The water used in hydromassage pools, including that from the compensation tank, filter and associated piping, must be changed every 72 hours as long as the system is operated continuously with the correct physical-chemical conditions of the water guaranteed throughout the entire period, and that halogen shock is performed daily. The water used in hydromassage pools must be changed whenever necessary to maintain water safety (water chemistry). The date and time of hot tub water changes must be recorded.

4.3.4 Other requirements

Single-use hot tubs (hydrotherapy) must be cleaned and disinfected after each use and maintained in accordance with the manufacturer's instructions. Individual cabins located inside cabins must be disinfected at each occupancy change or weekly, whichever is less. In both cases, the criterion for disinfection is 10 ppm for 60 minutes or equivalent Concentration Time (CT).

Disinfection of all filter installation locations must be done with a disinfectant solution at 1 ppm concentration for 50 minutes or similar CT value. Disinfection operations must be recorded with the concentration and contact time used. Hydromassage filters must be changed every 12 months or sooner based on sedimentation tests carried out.

Hydromassage pools must have a device to control the water temperature, so that it does not exceed 40 °C (104 °F).

Children with diapers or who do not yet have control over their sphincters should not use swimming pools and hot tubs.

The vessel must have an action plan on board for fecal or vomiting accidents that may occur in swimming pools, jacuzzis, whirlpools and similar areas. A record of occurrences of fecal or vomiting accidents must be kept and contain the name of the pool, date and time of the incident, actions taken, free residual halogen concentration reached after cleaning, and contact time.

4.4 Air conditioning

4.4.1 Operating conditions and requirements

The crew responsible for the air conditioning system must maintain all parts of the system in satisfactory hygienic and sanitary conditions as described below:

- External air intakes for renovation must be kept clean and protected from possible sources of contamination;
- Air filters must be kept in good cleanliness and integrity;
- Permanently used filters must be cleaned monthly. In places with severe conditions of use, such as smoking areas, the filters must receive special attention, and, if necessary, they must be cleaned within a period of less than a month;
- Disposable filters must be changed within a maximum period of 3 months or according to the manufacturer's express recommendation, observing the filter classification and its useful life;
- The air conditioning system engine room areas must always be kept clean.
No objects (such as products, utensils, among others) may be stored or stored at the location and the space may not be shared with other areas of the vessel;
- The areas of the air conditioning system's engine rooms must not present leaks from the condensation and cooling system, and the thermal insulation of the chilled water ducts must be in good condition; It is
- Cleaning and disinfection of the entire system must be carried out with products specifically indicated for this purpose (non-toxic, biodegradable, others) and the use of personal protective equipment by the worker involved in the process must be observed.

Recommendation: Maintain the ambient temperature in public areas of the vessel between 23o and 26oC when occupied by travelers (passengers or crew).

4.4.2 Sanitation records

Records relating to the operation, maintenance, control and hygiene procedures of air conditioning equipment must be kept on board, and made available upon request.

A list of products used in air conditioning system cleaning procedures must be available, upon request.

The manufacturer's records with the classification and degree of efficiency of the filters used in the vessel's air conditioning system, including filters used in passenger and crew cabins, must also be available for consultation, upon request.

4.5 Hospital

Each area of the hospital must be exclusive to the intended activity, without foreign objects, and must be in satisfactory hygienic and sanitary conditions.

The area must have adequate light and ventilation, proportional distribution of furniture, utensils and equipment, with floor and walls made of waterproof material and without gaps, in order to provide ease of cleaning and hygiene, as well as the circulation of professionals working in the hospital area .

The care records carried out must be properly archived, in order to allow easy access to health professionals, commanders and health authorities, guaranteeing the confidentiality of the information.

Attendance records must include:

- Crew member's health history: containing admission and periodic examinations, activity and place of work, complications and absence from work, with the following information: date of attendance, name of crew member, function, cabin number, signs and symptoms presented or referred to, date of onset of symptoms, diagnostic hypothesis, medication administered, dose; It is
- Passenger Health History: containing the following information: date of service, passenger name, cabin number, signs and symptoms presented or reported, date of onset of symptoms, diagnostic hypothesis, medication administered, dose.

Note: It is recommended that crew members keep their vaccination status updated, as recommended by the Brazilian National Immunization Program.

In addition to patient records, other records must be kept on board (preferably at the hospital):

- Outbreak Prevention and Control Protocol (OPRP);
- Communicable disease protocols, with special attention to health alerts and flowchart of notifications;
- Record of the disposal of solid waste, generated in the hospital, destined for incineration; It is
- Microbiological and physical-chemical reports of the water, when applicable.

The outpatient area must have sufficient furniture, materials and equipment to care for patients, in addition to private sanitary facilities, in appropriate conditions of use.

The emergency cart must contain all items essential for immediate recovery care and cardiorespiratory support for the patient (drugs and various equipment). Equipment intended for emergency care (aspirator, intubation cannulas, probes, ambu and mechanical respirator, defibrillator, monitor, etc.) must be in an easily accessible location and in full working conditions.

Humidifiers, when filled with liquid, must contain a supply date, respecting the expiration date of 1 (one) day.

The ends of equipment that come into contact with the patient: mechanical ventilator terminals, oxygen therapy tubes, inhalation sets, orotracheal aspiration tubes, among others, must be protected to avoid secondary contamination.

Medicines, including immunobiologicals, and health products, must be within their expiration date, stored in a place protected from humidity and with adequate lighting.

Medicines, including immunobiologicals, stored under refrigeration must be organized in such a way as to facilitate the circulation of cold air between them. Temperature control (maximum and minimum) must be carried out three times a day, recorded on spreadsheets posted on or near the equipment. The equipment (refrigerator) must be used exclusively for this purpose.

Split medicines must be identified with the name, split date, batch and expiration date.

Narcotics and psychotropic drugs must be in a restricted, safe place, stored with restricted opening (keyed or coded), under the responsibility of the responsible health professional.

Heat-resistant materials subject to sterilization (stainless steel material or other types of metal, metal instruments placed in a tray or perforated metal box, scissors, glass syringes, vials, glass balloons, test tubes, among others) must be sterilized and labeled with a shelf life compatible with technical standards for sterilization, packaging, storage and correct use of health products. Furthermore, it should be noted that:

- Autoclaves must be monitored through biological tests as recommended by the equipment manufacturer;
- Sterilized packages must be visually identified with heat-sensitive tape to ensure ensure that it has passed the temperature recommended by the manufacturer; It is
- Sterilized packages must contain the sterilization date and expiration date.

All sterilized material must be stored and sorted in a restricted, dry place, protected from possible contamination.

The hospital must have support facilities and equipment necessary for patient care, in addition to private sanitary facilities, in appropriate conditions of use.

The flowchart of cleaning and disinfection procedures must be posted in an easy-to-view location.

In case of death, the corpse must be kept at temperatures below 5°C (preferably between 0 and 5°C).

4.6 Disease vectors and reservoirs

The RSI (2005) establishes that: "Operators of means of transport must permanently keep the means of transport under their responsibility free from sources of infection, including vectors and reservoirs of diseases". Therefore, all areas of the ships must remain free of risk factors that provide shelter, food or reproduction of adult insects or other vectors and reservoirs of diseases that put individual or collective health at risk.

In this same sense, those responsible must maintain effective control over the presence of insects or other vectors and reservoirs of diseases or venomous animals.

Vessels must develop an Integrated Pest Management Plan (PMIP) to define pest monitoring and control strategies, covering the entire vessel, with strategies defined according to the risk that the area presents.

The PMIP must include at least the following information:

- Identification and biological description of animal species under control;
- Responsible for PMIP in the different operational areas of the ship;
- Description of control techniques and operational procedures for each type of pest including environmental management;
- Description of monitoring indicators;
- Description of products used with active ingredients, initial concentration and dilutions of use (common name, active ingredient, concentration of use, diluent, applied volume, target pest);
- Description of the equipment used;
- Frequency with which each control and monitoring activity is carried out for the ship's operational areas (schedule for periodic follow-up inspections, including some at night);
- Record models used;
- Description of the PPE used by applicators and the general safety measures used during the application of chemical and/or biological products;
- Description of the storage area and procedures, in the case of product storage chemist on site; It is
- Records of training carried out by crew members involved in the activities.

The PMIP must include passive surveillance procedures, such as traps and other monitoring tools, as well as the location of each.

The PMIP must have an illustrative map with the location of all traps inside the ship or a list with this location.

The use of electric light traps is not recommended in areas where food is handled, stored and exposed to consumption or near clean equipment.

4.6.1 Monitoring and control actions

The vessel must maintain rodent prevention measures and equipment, installed and in operation, constructed and handled to ensure its efficiency and effectiveness.

Dormitories, cafeterias and dining rooms, indoor leisure areas, as well as all eating spaces must have vector monitoring and control measures especially in areas with a high prevalence of insects. Solid waste rooms should be inspected more frequently to check and eliminate breeding sites for insects and other vectors.

4.6.2 Products: labeling, storage and distribution

The packaging of products used in health vector control services must be disposed of correctly and safely, avoiding contamination of humans, animals and the environment.

The use of insecticidal or rodenticide formulations containing an active substance or form of presentation not authorized by the competent bodies, as well as the use of concentrations above authorized limits, is prohibited.

All chemicals used for monitoring and controlling pests on board must be:

- Labeled with identification of active ingredients and expiration date;
- Diluted in specific locations for the activity and according to the manufacturer's instructions;
- Used to ensure the protection of the health of crew and passengers; It is
- Handled by professionals trained for this purpose, who must make appropriate use of the Personal protective equipment.

Products must be kept in their original packaging. When this is not possible, all information on the original packaging must be available to crew members performing this activity.

Insecticides and rodenticides, and any toxic substances, and equipment for their use must be stored in specific (and exclusive, if possible) storage areas/rooms, with access control and far from accommodation. Furthermore, such poisonous substances should not be stored near kitchens, food stores, dishes and utensils, or cutlery, bedding and other equipment used for the handling and serving of food and beverages. To avoid accidental use of these substances, they must be kept in properly labeled containers and in accordance with national safety requirements.

4.7 Sanitary sewage

The discharge/discharge of sewage in the port area is prohibited, except when the vessel is operating a sewage retention or treatment system on board, with IMO approval and a valid Sewage Pollution Prevention Certificate. These vessels with a valid Certificate, when moored, can release sanitary effluents into the aquatic environment, only when the treatment system's diversion and service valves, which can discharge effluents into the aquatic environment, remain closed and sealed.

In the port, anchoring area and in environmental protection areas (considered vulnerable), the ship must have a treatment system in satisfactory operational and hygienic-sanitary conditions and have the raw effluent release valves (without treatment) closed, aeration turned on, macerator working, filter and return ducts without obstruction and disinfection system in operation, in accordance with the manufacturer's specifications. Additionally, the treated effluent must not contain visible floating solids or discoloration in the water.

The sewage treatment system plan must be the same as that described in the Sewage Pollution Prevention Certificate, and there cannot be any changes.

When the effluent treatment system uses liquid products for the disinfection process, it must preserve the active ingredient described on the product label, as well as promote the complete control or elimination of pathogenic microorganisms. The final free residual halogen level (after treatment) must be monitored weekly and maintained at a minimum of 0.5 ppm or according to the manufacturer's recommendations. Other treatments may be used.

Every vessel must have on board an instruction manual from the manufacturer of the treatment system or documented information regarding the type of storage, treatment and discharge system for the vessel's sanitary effluents, including aspects of operation, cleaning and preventive maintenance.

When the vessel is equipped only with a retention tank, the capacity of this tank must be compatible with the deposit of all effluent related to the vessel's operation and the number of travelers, as well as having a pipe that leads to the outside of the vessel. suitable for discharging sewage in a suitable location, with the tank drain valves closed and sealed throughout the process.

For the purpose of calculating the capacity of the retention tank, the limits defined in HELCOM Recommendation 11/10 must be used as follows:

	LITERS PER PERSON PER DAY	
	CONVENTIONAL SYSTEM	VACUUM SYSTEM
SEWAGE (BLACK WATER)	70	25
SEWAGE AND WASTEWATER (BLACK AND GREY WATER)	230	185

4.8 Solid waste

Solid waste management must respect Good Practices in all stages of the management process, ensuring adequacy in the conduct of crew members involved in sizing, planning and operational flow, in view of the requirements of impact on the environment and health when carrying out activities. .

Classification of solid waste

In order to facilitate the planning and management of solid waste, these, in Brazil, are classified into groups according to technical regulations:

Group A – infectious

Group B – chemicals

Group C – radioactive

Group D – common

Group E - sharps

Note that for each group of waste, its management planning must be compatible with the quantity, location of generation and flows for storage, treatment or removal.

Those responsible for waste management must wear personal protective equipment, including nitrile or rubber gloves, masks, goggles, safety boots and appropriate protective clothing.

It is essential to develop a solid waste management plan for the vessel as a way of systematizing planning, implementation and monitoring covering its generation, segregation, packaging, collection, storage, transportation, treatment and final disposal.

Waste management must be assigned to a crew member who, in addition to preparing the management plan, must guide and supervise the team in carrying out the activities.

It is important to highlight that Brazil does not require the identification of a group of waste generated on board by specific color or symbolism, but requires that the vessel has its own visual identification defined for the different groups of waste generated and that this identification is widely publicized/known by all crew members, as defined in the Management Plan.

4.8.1 Stages of handling

4.8.1.1 Generation and segregation

Waste generation sites must contain containers for separation, according to the following types: paper/cardboard; plastic; glass; metal; wood; hazardous waste; health waste and food waste. The person responsible for the management plan must make a diagnosis of the locations, types and quantity of waste generated and the availability of compatible containers.

Potentially infectious solid waste is classified in Brazil as group A. Examples include: waste generated in toilets (toilet paper, including when cleaning), waste generated by crew or passengers who have a health event compatible with a communicable disease, waste from cleaning vomit/diarrhea, hospital waste (except office waste, which is considered common) among others.

Examples of hazardous solid waste (in Brazil classified as group B): oils, sanitizing packaging, paints, solvents, dirty tow, unused medicines, light bulbs, batteries, tires, among others. Hazardous solid waste must be separated from other waste and, when sent for final disposal, the management capacity of this type of waste must be observed.

The inclusion of other waste in the potentially infectious category may occur as a public health emergency of international importance is declared by the WHO. In this case, stricter measures may be adopted when managing this group of waste.

The management of oily/hydrocarbon waste must comply with the requirements of the MARPOL Convention.

4.8.1.2 Conditioning

Waste packaging must be carried out according to the volume generated, the physical state of the material and the removal flow.

Containers for storing solid waste must be made of washable material, resistant to rupture, leakage, puncture and falling, with a lid equipped with an opening system and with a capacity compatible with the generation of waste in the areas.

Packaging containers in administrative offices do not require a sealing lid, except when also used for food waste.

In places where there is a potential risk of cross-contamination, such as food handling and production sites (kitchens) and healthcare establishments, packaging containers must be equipped with lids, with non-manual operation. Packaging containers may only remain uncovered during food production and handling activities.

As a way of minimizing environmental impact, the use of plastic bags for packaging should not be encouraged and alternative solutions should be included when necessary.

Infectious waste, group "A" and "E", must be identified throughout the management chain and highlighted, on the outside of its packaging, the infectious substance symbol.

4.8.1.3 Storage

The waste storage area (waste room and storage area) must be located to minimize crossing with clean areas (water tank, food circulation and storage and infirmary).

Preferably, waste storage areas should facilitate their removal. These areas must be equipped with facilities for safe storage of food waste and must be refrigerated.

Waste storage must be carried out in an area with a physical structure that minimizes the risks inherent to this activity. This area should:

- The purpose must be exclusive, duly identified and easily accessible;
- Present dimensions compatible with the volume of waste generated;
- Be equipped with a number of compatible packaging containers in accordance with the volume and type of waste generated, respecting their particularities. Containers must be made of resistant, smooth, washable, easy-to-clean material and identify the type of waste;
- Be organized with internal separation between groups of waste;
- Be equipped with floors covered in smooth, washable, waterproof material that is resistant to collector car traffic;
- Have smooth, washable walls, with rounded corners and baseboards;
- Have full coverage throughout its entire length;

- Be equipped with wastewater drainage channels directed to the wastewater network (grey water), and a siphoned drain with a cover that allows it to be sealed;
- Have lighting points in sufficient quantity and intensity to carry out the activity;
- Have a water supply point for use in washing the environment;
- Be equipped with an exhaust system with openings for air circulation;
- Adopt a mechanism for restricted access to people authorized and qualified for the service;
- Have measures or physical barriers against the entry of vectors such as a mechanical barrier into the lower part;
- Present a place for the storage and maintenance of personal protective equipment (PPE), provided with a specific place or cleaning the equipment, as well as a washbasin with eyewash and shower for workers working in this activity.

NOTE1: The storage location for group B (chemical) waste must have a fire and explosion protection system.

NOTE2: The packaging area and containers must be subjected to cleaning and disinfection procedures, after each waste collection or transfer operation, or at the discretion of the competent health authority, with a view to maintaining hygienic-sanitary conditions.

NOTE3: Liquid waste from the storage area must follow the guidelines for releasing these effluents established by the competent environmental and sanitation bodies and international standards.

4.8.1.4 Treatment

Treatment consists of a series of procedures designed to reduce the quantity or polluting potential of solid waste, either by preventing waste from being disposed of in an inappropriate environment or location, or by transforming it into inert or biologically stable material.

Group A and group E solid waste cannot be disposed of in the environment without prior treatment that ensures the elimination of the hazardous characteristics of the waste, the preservation of natural resources, and compliance with environmental quality and public health standards. . It should be noted that for group "E" waste, treatment must also ensure its decharacterization.

Solid waste belonging to groups "A" and "E" cannot be recycled, reused or reused.

Group B waste must undergo a reuse, recovery, recycling or relevant treatment process and its packaging and materials contaminated by chemical substances must be treated in the same way as the substance that contaminated them.

Group D waste can be reused or recycled, except when there are contrary provisions from the competent bodies, and does not require treatment prior to final disposal.

For groups of waste that must be treated prior to disposal in the environment, the treatment technology to be adopted must meet the premise of promoting the reduction and/or elimination of biological load and, if applicable, minimization of the toxicity of the treated compounds. .

4.8.1.5 Removal of waste from the port

The waste management policy (Law No. 12,305/2010) in Brazil has as its premise, in the generation of waste, the practice of reduction, with subsequent pillars encouraging the practice of reuse and reuse.

It is important to know this law when removing solid waste in Brazil. The vessel must be aware of the location where the waste will be sent and is jointly responsible for its disposal.

The types of waste to be removed, especially when it comes to batteries, lamps, tires, paints, solvents, among others, must be duly declared at the time of removal from the vessel.

Companies responsible for the collection, transport and final disposal of waste from on board must be regularized/authorized with the federal Health Surveillance body (Anvisa).

4.8.1.6 Reduction

The search for alternatives to reduce the generation of solid waste is considered an excellent standard in terms of optimizing procedures, and should be encouraged to be part of the proposal for good sanitary practices in solid waste management.

4.8.1.7 Reuse and recycling

Management actions must promote strategies in the following order of priority: non-generation of waste, reduction, reuse, selective collection and recycling. The advantages for implementing systems from these perspectives are:

- preservation of natural resources;
- energy saving;
- financial savings for withdrawal;
- awareness of environmental issues.

Therefore, it is essential to plan activities so that recovery methodologies are implemented throughout the solid waste management stages.

4.9 Cleaning of cabins and public areas

The procedures must be carried out in such a way as to guarantee the correct hygiene of the areas, minimizing the possibility of cross-contamination. Every type of cleaning carried out on the vessel must be recorded.

The material used to clean and disinfect bathrooms must be changed at each cabin or disinfected if it is not disposable. The material used in cabins must not be the same as that used for bathrooms.

The gloves used by stewards, if they are not disposable, must also be disinfected before being used again in another cabin.

Cleaning and disinfection of showers and cabin windows must be done every 6 months. This disinfection must be carried out using a halogen-based disinfectant at 10 ppm for 60 minutes, or equivalent concentration.

Stocks located on cabin decks must be organized, clean and must not keep food stored close to cleaning products or dirty material such as sheets, towels, dishes, cutlery, etc.

The products used in cleaning and disinfection procedures must be stored and diluted in a separate location, have proven origin and, when divided, have a transcript of the original packaging.

All sanitizers used on board must contain technical sheets that minimally specify: indications for use, bactericidal or virucidal effects, instructions for use and dilutions, active ingredients with concentrations, handling precautions and protective equipment necessary for handling.

Restrooms for collective use must be clean, maintained and in perfect maintenance. Liquid soap, paper or tissue towels for individual use, as well as suitable containers for disposal must be available in the washbasins.

On ships that have waste bins for used toilet paper, these must be equipped with non-manual lids and covered with bags.

Crew members responsible for cleaning and disinfection must not be exposed to risk factors that could harm their health and must have at their disposal the necessary protective equipment to carry out their activities safely, and be properly instructed on the correct way to use them. equipment.

The vessel must have a flow, procedure and regularly trained team for disinfection procedures for contaminated surfaces.

Spaces intended for children's recreation must have hygiene protocols established by the company and be maintained in satisfactory hygiene conditions as follows:

- Multi-touch surfaces, toys, baby changing facilities, bathrooms and washbasins must be cleaned and disinfected daily with specific sanitizers for this purpose.
- Plastic balls used in ball pools must be sanitized whenever potentially contaminated (saliva, secretion, etc.) or once a week;
- Tables or highchairs must be sanitized before and after use;
- Decks (or carpets) must be cleaned daily or when visibly dirty; It is
- Clothes such as sheets, blankets, pillowcases, etc. must be washed between uses.

If chemicals are used for disinfection, the surfaces must be air dried before being returned to use.

An exclusion policy for sick children must be posted in a visible location that clearly states the procedures that must be followed when a child exhibits symptoms of an infectious disease while in children's play spaces. This guideline should include the need for a medical clearance letter for a child with symptoms to be accepted into these children's centers.

4.10 Laundry

Clothes processing in the laundry room must follow an orderly flow from receiving dirty laundry to the clean laundry processing area. Clean laundry must be transported separately from dirty laundry.

The laundry room must have a sink with liquid soap, paper or tissue towels for individual use, as well as suitable containers for disposal.

The fabric bags used to transport dirty clothes must be subjected to the same washing process as the clothes before being reused. Disposable bags cannot be reused.

The laundry must have procedures in place to minimize the possibility of cross-contamination when handling bedding, towels and clothing during an outbreak.

Bed linen, bath linen and clothing from suspected cases must be considered contaminated.

Laundry employees/crew must be trained in handling clothes from infected cabins or areas and use Personal Protective Equipment (PPE), such as gloves and masks.

In case of outbreaks, clothes must be placed in bags identified as biological risk and sealed; and transported to the laundry in exclusive carts. In the laundry room, clothes must be washed immediately.

The laundry must have equipment for the exclusive use of clothes from contaminated cabins or areas.

The washing machine must be programmed to use the water at the hottest temperature in the wash cycle and the dryer at the highest setting.

Trolleys used to transport dirty clothes must be cleaned and disinfected after each period of use.

5. FINAL CONSIDERATIONS

Health surveillance aimed at cruise ships requires consideration of specificities linked to this type of transport, recognized by the large volume of passengers on board, variation in collective environments and leisure activities.

The preparation of this Guide as part of ANVISA's work focused on these ships is part of an inspection program focused on the standardization of actions and measures, with the ultimate objective of supporting the sector to carry out actions to prevent and control the spread of pathogens on board cruise ships circulating in Brazilian waters.

This Guide, in line with current standards, guides concepts and conduct for cruise vessels, but is not intended to remedy all possible health scenarios on these vessels. In this way, in addition to being frequently reviewed, additional measures and behaviors can be determined throughout the season, depending on the epidemiological and health context.

6. GLOSSARY

CLP: Certificate of Free Practice

Event: a manifestation of disease or an occurrence that has the potential to cause disease.

Vessel: a maritime or inland navigation boat/vessel on an international voyage.

Isolation: the separation of sick or contaminated people or affected luggage, means of transport, goods or postal parcels from others, in order to prevent the spread of infection or contamination.

Health measure: procedures applied to prevent the spread of contamination or disease; a health measure does not include police or security measures.

Compulsory Notification: is the mandatory communication to the health authority, carried out by doctors, health professionals or those responsible for health establishments, public or private, about the occurrence of a suspected or confirmed disease, condition or public health event.

Operator of means of transport: a natural or legal person responsible for a means of transport, or its agent.

WHO: World Health Organization

Point of entry: a location for the international entry or exit of travelers, baggage, cargo, containers, means of transport, goods and postal parcels, as well as the agencies and areas that provide services to them upon entry or exit from the national territory.

Quarantine: restriction of activities and/or separation of suspected people from people who are not sick or from suspected baggage, containers, means of transport or goods, in order to avoid the possible spread of infection or contamination.

Quarantine at work: the crew member is permitted to work and must observe activity restrictions and return to the cabin at the end of the working day.

Suspect: people, luggage, cargo, containers, means of transport, goods or postal parcels considered by the State Party to have been effectively or possibly exposed to a risk to public health and which may constitute a possible source of spread of disease.

Traveler: person traveling in areas under the jurisdiction of the federal health authority, regardless of their legal status or means of transport; be it a passenger, crew member, non-crew professional, stowaway or pedestrian.

Surveillance: the ongoing and systematic collection, compilation, and analysis of data for public health purposes, and the timely dissemination of public health information for public health assessment and response purposes, as necessary.

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ATTACHMENTS

Annex I – Suspicious Cases Record Book Model

ANNEX I											
CONTROL WORKSHEET FOR SUSPECTED CASES OF NOTIFIABLE DISEASES											
Vessel's Name:											
Cruise Dates:											
Itinerary:											
N°	Full name	Age Sex		N° Cabin	crew (T) you Passenger (P)	Position or function of the crew member, if applicable	Date and time the onset of symptoms	Date of first clinical visit or reporting to healthcare team	Symptoms, including the presence of the following signs or symptoms: number of episodes of diarrhea and vomiting per day, bloody diarrhea, fever (with recorded temperature), abdominal pain, head and muscles.	Medication	Note about the request for clinical samples and whether it was fulfilled
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Annex II - Epidemiological Investigation Questionnaire



Questionário de Investigação Epidemiológica



Nome do Navio:		Data:	
Sobrenome do Viajante:		Primeiro nome do Viajante:	
() Tripulante () Passageiro		País de origem:	
Estado e Cidade:			
Data de nascimento (dd/mm/aaaa):		Idade (em anos):	Sexo: M / F Se feminino, é gestante: Sim / Não
Algum problema de saúde (ex.: hipertensão, diabetes, asma)? Sim / Não Se sim, quais?			
Local de embarque (Cidade/Estado):		Data de embarque (dd/mm/aaaa):	
Número da Cabine:		Total de pessoas na cabine:	
Sintomas apresentados:			
☐ Falta de ar	☐ Tosse	☐ Febre: ☐ C	☐ Dor de garganta
☐ Diarréia (especificar nº episódios no pior dia da doença):	☐ Vômito (especificar nº episódios no pior dia da doença):	☐ Dor Abdominal	☐ Enjoo
Outros (especificar):			
Data do início dos sintomas (dd/mm/aaaa):		Circule o período de início dos sintomas: Manhã / Tarde / Noite	
Você recebeu atendimento médico?			Sim / Não
Você utilizou alguma medicação após início dos sintomas?			Sim / Não
Se sim, qual medicamento?			
Nos 15 dias antes de adoecer, você esteve em outra cidade que não seja a de embarque ou escalas do navio?			Sim / Não
Se sim, quais:			
Antes de ficar doente, você desembarcou para passeios, visitas ou outras atividades?			Sim / Não
Se sim, quais:			
Você comeu ou bebeu alguma coisa durante seus passeios ou visitas fora do navio?			Sim / Não
Se sim, citar nome de restaurantes ou estabelecimentos?			
O que você acha que pode ter causado sua doença?			

Annex III – Cleaning and Disinfection Procedures

This document below establishes general guidelines for the cleaning and disinfection of passenger or cargo ships that have transported traveler(s) with suspected communicable diseases on board, mainly influenza and gastroenteritis outbreaks. The purpose of these guidelines is to describe minimum cleaning and disinfection procedures for areas and cabins in the presence of suspected cases of GI or influenza. This document is aimed at professionals responsible for health and safety on board ships that circulate in Brazilian jurisdictional waters, whether they fly national or international flags.

This guidance may be modified at any time by decision of the Brazilian health authorities or according to guidelines from the World Health Organization, or when atypical situations occur in certain events on board.

Viral particles can persist for 24 hours or more on nonporous surfaces, but sufficient quantities of the virus for human infection are susceptible for shorter periods. Although the relative importance of transmission of various viruses from inanimate objects is not yet fully understood, manual transfer of viruses to the mucous membranes of the eyes, nose and mouth, resulting in infection, is quite likely to occur. And without a doubt, hand hygiene, protection with tissues when coughing or sneezing and the use of surgical masks in suspected cases of flu are the main ways to interrupt this transmission. Furthermore, proper cleaning and disinfection routines also play a key role in reducing the spread of influenza on board.

The basic components for efficient environmental health management related to influenza and gastroenteritis include routine cleaning with water, soap or detergents to remove dirt and organic matter, followed by the use of appropriate disinfectants. Reducing the number of viral particles on a surface through these steps can reduce the chances of manual transfer of these microorganisms. Viruses are susceptible to inactivation by a series of commercially available disinfectant chemicals, as well as other etiological agents. All disinfectants sold in Brazil are required to be registered with ANVISA. These products must be used according to the manufacturers' recommendations.

The assigned cleaning team must use personal protective equipment provided below, only during cleaning and disinfection procedures in cabins that accommodate travelers suspected of diarrhea or influenza, according to the case definition:

- Nitrile glove with cuff size 33 or 46 (for toilets);
- Half-face respirator that filters particles (at least N95 or PFF-2);
- Waterproof footwear;
- Waterproof TYVEC apron or similar;
- Safety glasses;
- Disposable shoes.

When handling or diluting sanitizers, those responsible must use the protective equipment recommended by the product manufacturers.

Only use sanitizers registered in the countries of manufacture (Brazilian products must be registered with ANVISA) with indications for the suspected etiological agents.

Cleaning teams must be continually guided and trained in the activities involved in surface cleaning and disinfection procedures.

Cleaning and disinfection activities must be periodically supervised/inspected by responsible officials to ensure that procedures are being followed correctly to minimize the risk of cross-contamination from “dirty” areas to “clean” areas.

During the outbreak period, in addition to these commonly sanitized areas, some other items deserve particular attention and care, such as:

- Door handles
- Stair handrails
- Elevator buttons
- Telephones
- Keyboards and mices
- Tables
- Armrests of chairs and armchairs
- Toilet flush buttons
- Games room objects
- Slot machines
- Sports Equipment
- Other objects of collective use that are handled

All crew members must never touch their eyes, mouth or nose without washing their hands properly.

All hard surfaces must be cleaned with a multipurpose detergent or sanitizer and disinfected with a 1000-5000ppm sodium hypochlorite solution or an authorized alternative sanitizer with bactericidal and/or virucidal properties. Given the potential for dilution evaporation, bleaching solutions should be prepared for use within 24 hours, or the target concentration should be doubled (e.g., 2000 - 10,000 ppm) for storage and used within 30 days. (Hall et al, 2011).

Equipment or objects made of stainless steel, equipment or objects that come into direct contact with food or mouth and toys, are recommended to be disinfected with a bleach solution at a concentration of 200 ppm.

In “dirty” areas, such as bathrooms, cloths must be disposable and must be placed in sealed bags immediately after use. Cloths used to clean toilets must only be used for this purpose.

The cleaning team must avoid the use of brooms, dust mops and the like, giving preference to wet cleaning and disinfection methods, avoiding as much as possible the use of sweeping or other methods that could raise dust.

Areas with vomit and/or feces must be immediately isolated and covered with disposable paper towels, or specific absorbent products for this purpose. The cleaning team must check the necessary PPE provided above or as recommended by the chemical product manufacturer. All used PPE, paper towels and dirt must be immediately placed in plastic bags,

milky-white in color and infectious symbol, resistant to rupture and leaks for subsequent disposal in ports authorized to receive this type of waste.

Considering that sanitizers are not indicated and registered for use on porous surfaces such as carpets, upholstery and carpets, they must be carefully removed and washed, according to the manufacturer's recommendations or discarded as described above or cleaned with steam systems that reach at least 70°C (unless the surface cannot withstand the heat).

Porous surfaces that can be removed should first be cleaned with water and detergent and then allowed to air dry. If they cannot be removed, you must use a specific shampoo for carpets with virucidal properties.

Vacuum cleaning systems are known to be capable of recirculating viruses and should therefore be avoided. If used, these systems should only be used in uncontaminated areas and contain air filters that should be changed as recommended by the manufacturer.

All porous surfaces must be completely dry before travelers are permitted to enter these areas.

After washing, debris and dirt must be packed in plastic bags, as described above, and discarded at authorized ports. All items taken to the laundry must also be packed in resistant plastic bags or other material that prevents breakage.

Attention: any method that causes splashes or provides aerosols, such as compressed air or water, must not be used in cleaning and disinfection procedures.

Laundry procedures do not need to be drastically changed in the event of outbreaks, as although viruses can persist in porous materials, their transfer to sheets, pillowcases, pillows, etc. is not as efficient as compared to non-porous surfaces. In any case, here are some preventive measures:

- Handle bed and table linen with as little agitation as possible;
- Crew who handle bed and table linen (cleaning and laundry staff) must carefully follow the safe procedures trained by the shipping company and use protective equipment as above, avoiding contact of the handler's skin or body with the dirty clothes to be washed, and keep dirty fabrics inside bags intended for this purpose;
- Hand washing or hygiene must be done immediately after selecting clothing and placement in the washing machine;

Clothes and fabrics of suspected travelers, with the potential to transmit infectious agents, require separation from others and should be washed with hot water and detergent if necessary.

Cleaning and disinfection equipment used in toilets/sanitary facilities must be different from that used in other areas. To facilitate compliance with this requirement, it is recommended to use a color system or other means of identification.

All brooms must be detached from their handles and washable (washed at 70° C). After washing, the broom must be placed upside down to facilitate complete drying. Brooms cannot be left in buckets or pots of water. Buckets of water must be cleaned, disinfected and dried between applications.

You should never reuse buckets of water between washes, as this water may be contaminated and spread infection.

Cleaning equipment storage areas must be kept clean and dry to avoid the risk of cross-contamination. All equipment used for cleaning and disinfecting contaminated areas must be disinfected before returning to storage areas.

Disposable towels and cloths must be discarded immediately after use, placed in milky white bags with an infectious symbol and sealed.

All other equipment, such as vacuum or steam cleaners, etc. (including detachable parts) must be cleaned and disinfected after use. The air filters of these vacuum equipment must be changed according to the manufacturers' instructions.

BASIC CLEANING AND DISINFECTION FLOW IN AREAS WITH THE PRESENCE OF VOMITING OR FEECES

Immediately isolate the affected area, if possible preventing travelers from circulating near the isolated area

Put on the recommended protective equipment

Cover the area with vomit/feces with an absorbent product or paper towel (repeat the procedure as many times as necessary to facilitate the action of the sanitizers)

Clean the surface with detergent and water (repeat the procedure as many times as necessary to facilitate the action of the sanitizers)

Dry the surface with disposable paper and discard it.

Apply disinfectant solutions, as recommended by the manufacturer (respect the concentration and contact time)

Dry the surface with disposable paper and discard it.

Remove protective equipment and discard it or store it and send it for disinfection (valid only for non-disposable items)

When cleaning and disinfection are complete, wash your hands with soap and water, drying them with disposable paper

Annex IV - Model Manual of Good Food Manufacturing Practices

1. VESSEL IDENTIFICATION:

Name:

Flag

Imo:

Name of responsible officer:

2. HUMAN RESOURCES

2.1. Procedures for hiring employees;

Report:

- Procedures for hiring employees, total number of employees, by area and gender;
- Records of training offered upon employee admission.

2.2. Method used for employee training;

Report the methods used to train employees regarding personal hygiene and food handling.

- Care (hair, mustaches, nails and personal habits)
- Main hand washing rules;
- Prohibition of the use of adornments.
- Care when using gloves (disposable, steel mesh, thermal and rubber);
- Operational procedures (receipt, storage, preparation, distribution and transportation)
- If some resources are used as a complement to typical training, posting posters.

2.3. Procedures for medical evaluation;

Describe in this item:

- Carrying out medical and laboratory tests (specify);
- Periodicity of exams (admissions, dismissals and periodic)
- Who is it executed by (outsourced company or not)
- Who decides the need for reassessment.

2.4. Procedure for wearing uniforms;

Describe in this item:

- Type of uniform (model, material and color)
- Need to use caps/caps and aprons;
- Tracing type;
- Need for specific uniforms (such as those used in cold storage rooms, air-conditioned rooms, etc.)
- Guidance on the use of accessories.

2.5. Procedure for employee meals;

- Describe locations and procedures adopted for food offered to employees.

2.6. Procedures for employee training;

- Report whether there are employees qualified for the functions performed in the company (mention position and function)
- What they were trained in and how the training is refreshed;

2.7. Procedures related to work safety;

Report:

- whether employees are aware of work safety procedures;
- Periodicity of training;
- By whom is it executed
- If there are areas where the use of PPE (personal protective equipment) is necessary;
- What PPE(s) are available and the occurrence of training on their use.

3. DISTRIBUTION OF AREAS

- Total built area;
- Distribution (m²) of areas by sectors.
- Hygienic-sanitary and conservation conditions of the area.
- Flow (cross contamination);

4. FACILITIES, BUILDINGS AND SANITATION.

Describe for each sector (receiving, storage, kitchens - pre-preparation and preparation - and cafeterias):

- Floors, walls, ceilings, drains/channels, openings/doors, washbasins, solid waste collection containers: type of construction, material used, color, finish, type of drive, protections against dirt and vectors
- Type of wastewater flow (whether they allow access for cleaning and whether or not they are equipped with a closure system);
- List washbasins and describe whether they are equipped with soap, sanitizers for hand hygiene, paper towel or other device for drying hands;
- Sanitary facilities and changing rooms, their location and whether there is communication with the production areas and whether they are separated by sex; number of toilets (with lids or not), urinals, washbasins and showers, reporting the proportion by number of employees and gender; whether they have efficient discharge; type of material that makes up the floor and walls; existence of sinks with tap, soap dishes, towel racks, collection containers and cabinets for storing employee belongings;
- Describe ventilation and lighting systems (existence or absence of exhaust equipment that can make the environment airy, fresh, free from smoke, odors and vapors, etc.);
- List and describe existing temperature and humidity maintenance equipment;
- Type of drinking water supply and its main characteristics; frequency and procedures control of water potability (physical-chemical or microbiological)
- Origin of the ice and the hygienic-sanitary condition of production and storage that prevent contamination;
- Type of lighting in production areas (artificial or natural); Lamps (security system);
Lighting intensity in each production area;
- Describe whether the sectors are air-conditioned and the average temperature of each sector;
- List all existing equipment and its specifications (quantity, model and brand);
- Describe the maintenance process (preventive-periodic), calibration (scales and thermometer) and the respective control/recording;

4. OPERATIONAL PROCEDURES

4.1. RECEIPT OF GOODS

To describe:

- Adopted hygienic-sanitary criteria are used in the acquisition of raw materials (supplier accredited or who already have technical capacity);

- Whether visits are made to suppliers, which items are evaluated and the frequency of these visits;
- What qualitative and quantitative parameters are used to recognize each type of product: (production date, expiration date, batch number, product composition, etc.)
- Describe the different forms of control exercised over raw materials upon receipt, adopted by the vessel;
- Describe the packaging conditions so that the products are accepted;
- Describe the main sensory characteristics that are evaluated upon receipt of the merchandise;
- What transport conditions are assessed;
- What hygiene conditions must the delivery person comply with;
- If non-conformity is verified upon receipt, what measures/actions are adopted in each case.
- Receiving/cleaning flow;

4.2. STORAGE

To describe:

- Type of storage used for each variety of material received, indicating the temperature suitable for each person;
- The hygienic, conservation and operating conditions of the storage areas for perishable and non-perishable raw materials;
- Criteria used to control consumption and validity of stored products;
- Storage criteria for chemicals and toxic products if used;
- Criteria used after opening the original packaging of each product.
- The organization of the chambers (separation by product category)

4.3. PRODUCTION

4.3.1. PROCEDURES FOR FOOD PREPARATION

To describe

- The entire stage of the preparation flow for each food category, from receipt of raw materials, storage, pre-preparation, preparation, assembly, maintenance and final distribution/consumption, also report:
- If there are separate schedules, utensils (knives, boards) and benches for the pre-preparation of the different types of meats used;
- Procedures adopted for the hygiene (cleaning and disinfection) of foods consumed raw (vegetables and fruits) including (time/ concentration/dilution of sanitizers);
- Monitoring, controlling and recording the time and temperature of food during defrosting and during cooking (in the center of the food);
- Monitoring, controlling and recording the time and temperature of food prepared during cooking assembly, maintenance and final distribution/consumption.

4.3.2. PRODUCTION FLOW CHART

- Include in the Manual the flowchart of the preparation of each group of products, from receipt of raw materials until final distribution/consumption.

4.3.3. CRITICAL CONTROL STEPS

Describe in this item:

- The critical stages of the production process (PPC - critical control points) for each product category;
- The corresponding control measures;

4.3.4. OFFER OF FOOD PREPARED FOR CONSUMPTION

4.3.4.3. DISTRIBUTION OF THE FINAL PRODUCT

Procedures adopted in distribution

To describe:

- The hygienic-sanitary conditions and state of conservation of the areas, mobile equipment and utensils available for the area;
- Use of PPE(s) when distributing food;
- Control, monitoring and recording of temperatures of prepared foods that require control during distribution;
- Control and monitoring of temperature and sizing of equipment necessary for display or distribution of food;
- The hygiene and storage of utensils such as: plates, glasses and cutlery, when they are not used disposables;

4.4. SANITIZATION OF FACILITIES, EQUIPMENT, FURNITURE AND UTENSILS;

4.4.1. ENVIRONMENTAL HYGIENE

- Describe: The procedures (described step by step) for cleaning environments and facilities;
- The frequency adopted and the products and utensils used;
- The products (detergents and disinfectants) used and their authorization by the country of manufacture; If there is monitoring of environmental hygiene and the frequency with which they are inspected;

4.4.2. EQUIPMENT AND UTENSIL HYGIENE

Describe: The procedures (described step by step) for cleaning equipment and utensils;

- Methods: dry or wet cleaning;
- The products (detergents and disinfectants) used and their authorization by the country of manufacture;
- Concentration used, contact time and temperature when applicable;
- Equipment and utensils used in the hygiene process (vacuum cleaner, brushes, bushings etc.)
- Those responsible for storing chemical products as well as training and records;
- If applicable, describe monitoring of the hygiene of equipment and utensils and the frequency with which that are inspected.

SCHEDULE TEMPLATE EXAMPLE

UTENSILS AND EQUIPMENT		FREQUENCY	PRODUCT	PROCEDURE OF SANITATION		
Forms and trays		After use	Detergent: active principle	hand washing		
ENVIRONMENT		SANITIZATION PROCEDURE				
BRAND PRODUCT		SUBSTANCE CHEMICAL	INDICATION OF USE	DILUTION	CONCLUSION FINAL	

4.5. SOLID WASTE

To describe:

- The way in which solid waste is removed from the areas, equipment and handlers involved in this operation;
- Path taken by solid waste when removed from the production area;
- If the vessel has means for storing solid waste, before elimination/discharge;
- If the location is suitable to prevent the entry of pests and contamination of raw materials, food, drinking water and equipment or access roads;
- The frequency with which solid waste is removed from the production area;

4.6. PEST CONTROL (If an IPM exists, refer to it)

To describe:

- If there are preventive measures against pests entering the vessel;
- Preventive measures adopted and areas installed;
- Most common types of pests on the vessel;
- What chemical products are used to combat the infestation, and whether they are regulated by the official body and the proportions used;
- What types of care are adopted to protect food, equipment and utensils during application of (chemicals – pesticides);
- If there is stock of this type of product, describe the location and type of identification;
- The periodicity of monitoring and control;
- If outsourced service, identify the company that performs the service, as well as its registration with the official body (attach a copy of the most recent service): in this item it must be reported whether there is monitoring, completion and reporting on pest control activities, in addition to the frequency of these reports.

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