Making waves

CAMPAIGN
MAY 2024

ISLAND VIEW SHIPPING SERVICES

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1. CHINA MSA CIC on machinery and electrical equipment failures

China MSA will be conducting a CIC on machinery and electrical equipment failures from 7 April 2024 to 31 October 2024. China MSA planned CIC aims to reduce the risk machinery and electrical equipment failure for ships operating in China's waters.

Ships experiencing mechanical and electrical equipment failure should proactively report to the local MSA and accept special safety inspections as required. For ships that fail to proactively report mechanical and electrical equipment failures, once discovered by the MSA, more stringent and severe penalties will be imposed in accordance with the law.

The Master and CEO shall go through the attached checklist paying attention in detail to each question and ensure that the ships' mechanical and electrical equipment is in good order.

Please inform the Ship Manager if there are any issues with any equipment.

We will send a detailed questionnaire to the Fleet in due course. Kindly complete the questionnaire and send to Ship Manager prior calling any Chinese port.

2. Temporary traffic control measures implemented in the YANGTZE river

Recently the Jiangsu MSA issued a notice on the implementation of temporary traffic control measures in the waters near the Jiangyin Bridge in the Yangtze River.

The navigation routes and methods in the affected waters have been temporarily adjusted due to construction and may be further adjusted on basis of the actual progress of the project.

Ships transiting this dense traffic water area are suggested to:

- Be cooperative with the Pilot
- Comply with the corresponding requirements listed in the Notice when transiting each defined traffic control area
- Enhance crew vigilance and increase bridge/engine room manpower
- Ensure all machinery/equipment are working satisfactorily
- Have the emergency anchor parties on standby

Refer attached bulletin for detailed information on the temporary traffic control measures.

3. Cyber security

The Office will be sending video training links to each vessel along with the instructions by email. Once received all crew on board shall view the cybersecurity videos.
Typically, the video's will be made available on the Master's Laptop, CEO's PC and Admin 1 PC.
We propose that the Engine Dept. must watch the video on the CEO's PC likewise the Deck Dept. will watch on Admin 1.
The Office will be providing details of the video to be viewed shortly. A poster will also be made available to be displayed.

4. Karco training

The ship staff shall conduct the following training modules this month:

- **VETTING THE BRIDGE**
- **RISK ASSESSMENT AND MITIGATION**
- **SAFETY FAMILIARIZATION ON JOINING OF VESSEL**

The duration of each title is only about 10-15 minutes.

Training must be carried out in two sessions (based on work/rest hours) to ensure all crew are able to attend. Each session must be opened and concluded by a Senior Officer.

After the training, the Senior Officer should have an interactive session with the crew, discuss questions and the crew can also share their experience (Reflective learning). Once the training is completed, each crew shall log on individually and an assessment must be completed, and the records must be exported to KARCO system.

The Master can contact IT department and support team (mohammed.ali@karcoservices.com, support@karcoservices.com) for any queries regarding KARCO.

Records of training to be maintained in form 3.2.3.

5. Flighted spongy moth complex (FSMC)

Several countries have introduced policies and regulations aimed at preventing the introduction of FSMC.

The regulated areas along with the specified risk periods, and the associated requirements may differ from country to country.

The following requirements apply to ships that have called at regulated areas during the specified risk period in the last 24 months:

- Vessel should be inspected and certified free of FSMC by a recognized certification body. A copy of the certificate should be forwarded to the ship's agents. A certificate is valid until the ship calls at another port in a regulated FSMC area during the specified risk period.

- Vessel must perform a self-inspection on route to find, remove, and destroy all FSMC life stages before entering a port.

- Vessel must provide port of call data (two years), at least 96 hours prior to arrival to the ship's Canadian or U.S. agent.

The attached guidance outlines the requirements in countries with FSMC regulations for incoming ships. These requirements are subject to change and other countries may also introduce regulations.

It is important that the Master is aware of the applicable requirements and monitors the current situation closely and contact the local representative before arrival.

6. Emergency power source, blackout tests, and steering drills

Recently there have been incidents in the shipping industry attributed to power failure and loss of propulsion. These incidents have brought focus to power management, maintenance, tests, and drills.

The Company is process of reviewing the procedures, testing, and drills for:

- Emergency generator under load.
- Restarting essential equipment (ship specific)
- Regaining power from the emergency source (to main switchboard, charging the air receivers for the main diesel generators to ensure electrical power is provided to all auxiliaries like fuel and lubricating oil pumps and the boiler supply, restarting all auxiliaries and restarting the main engine and boiler).

We will amend our SMS to incorporate these requirements and will send detailed checklists to the Fleet in due course.

7. RIGHTSHIP Section 4 – ISM

RIGHTSHIP has commenced inspection of dry vessels using their checklist (RISQ) which is uploaded on the landing page of SHEQ. The RIGHTSHIP inspection is similar to the OCIMF SIRE inspection on tankers.

There are 16 chapters in the RIGHTSHIP questionnaire.

The Company will send guidance for each section as part of the monthly campaign. For this month, the Master and CEO shall go through the attached **"ISM"** checklist and ensure if vessel is complying with all items.

8. CHINA (ZHOUSHAN PORT)—Bunkering at the five anchorages

China (Zhoushan Port) local government has issued a guidance for bunkering at the five anchorages along with the coordinates, navigational requirement, anchoring requirement, meteorological restriction and other useful information.

The five anchorages include Xiazhimen North Anchorage, Tiaozhoumen Anchorage, Xiushan East Anchorage, Mazhi Anchorage and Qushan Temporary Anchorage. As there are many fishing vessels operating in these areas, vessels intended to bunker at Zhoushan port are suggested to follow the recommended navigational routes, comply with the various requirements stated in the forementioned guide, as well as other local regulations and international conventions and keep watch at all times. The Master shall also contact the local ship agent in advance for detailed information and obtain guidance in case it is required.

9. BRAZIL - Dengue alert

Caribbean and South America countries have reported approximately 4.6 million cases of Dengue this year. In Brazil alone there are over 3 million suspected cases this year.

Kindly discuss attached P&I bulletin with ship staff at next opportunity and comply with following preventive measures if calling these ports:

- Use insect repellent containing DEET or Icaridin on exposed parts of the body or clothing.
- Crew shall wear long sleeved shirts and long paints to minimize skin exposure.

- Eliminate breeding sites: Regularly inspect and remove any stagnant water sources on the vessel. Aedes aegypti mosquitoes which carry dengue, breed in stagnant water.
- Seek Medical attention if anyone experiences symptoms such as sudden high fever, muscle pain, fatigue, nausea, severe headache, joint pain, loss of appetite, abdominal pain, bleeding from gums and nose or skin rash.

10. U.S. Coast Guard Enhanced Examination Program April – June 2024

Beginning on 1 April 2024 and continuing until 30 June 2024, USCG Port State Control (PSC) Officers have been directed to carry-out an enhanced exam to verify engine room fire safety.

USCG EEPs are similar to Concentrated Inspection Campaigns (CICs) of other Port State Control regimes.

Kindly discuss attached Client Advisory – #10-24 with all officers and ensure full functionality of remote and local operation of fuel oil shutoff valves, power ventilation stopping arrangements and engine room lagging of pipes and hot surfaces are clean, not contaminated with oil and provide adequate protection.

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CIRCULAR

SPRO [2024] 04

15 April 2024

Notice of the Maritime Safety Administration of the People's Republic of China on the Special Action to Prevent Mechanical and Electrical Equipment Failures on Ships

Dear Sir/Madam,

On April 3, 2024, the Maritime Safety Administration (MSA) of the People's Republic of China issued a notice on the special action to prevent mechanical and electrical equipment failures on ships (hereinafter referred to as the "Notice"). We hereby prepare this Circular to introduce the contents of the Notice and provide loss prevention suggestions for the reference of the Club and their Members.

Background

In recent years, Chinese maritime authorities have paid special attention to the major risks to ship safety caused by mechanical and electrical equipment failures. Shanghai MSA has successively issued the“Announcement of Shanghai Maritime Safety Administration on Strengthening the Safety Management of Ships With Machinery Failure”and the “Notice on Further Strengthening the Safety Self-inspection of Ships Planning to Enter the Yangtze Estuary Deepwater Channel”. Through the formulation and implementation of these specific administrative regulations, the safety management of ships entering and leaving Shanghai port has been further strengthened, which has effectively reduced such risks and prevented and contained the occurrence of water traffic accidents.

The Period, Targets and Inspection Approaches of the Special Action

Period

The special action will start from April 7, 2024 and end on October 31, 2024.

Targets

The targets of the special action initiated by China MSA to prevent ship mechanical and electrical equipment failures are the ships that entering the Chinese ports (including seaports and river ports).

Inspection Approaches

The special inspection approaches include:

1. The MSA at all levels shall conduct detailed inspections on ship's mechanical and electrical equipment in combination with their routine safety inspections.

2. If it is discovered through various channels that a ship has experienced mechanical and electrical equipment failures, in principle, a special inspection shall be followed.

3. For ships that experienced two or more mechanical and electrical equipment failures in the past 12 months, the MSA will invite their shipping companies and ship inspection institutions to jointly carry out inspections, and require ships to submit accident analysis reports and preventive measures for mechanical and electrical equipment failures.

Additionally, ships experienced mechanical and electrical equipment failure should proactively report to the local MSA and accept special safety inspections as required. For ships that fail to proactively report mechanical and electrical equipment failures, once discovered by the MSA, more stringent and severe penalties will be imposed in accordance with the law.

Self-inspection Requirements of the Special Action

Chinese ships shall strengthen the maintenance of their mechanical and electrical equipment. And the shipping companies shall develop key inspection items for mechanical and electrical equipment that applicable to their own ships with reference to the "Special Self-inspection Guidelines for Preventing Ship Mechanical and Electrical Equipment Failures" (attached). Ships shall also conduct pre-departure self-inspection according to the requirements, and timely rectify any deficiency or hidden problem identified during the self-inspection.

Foreign ships planning to visit Chinese ports should conduct appropriate maintenance on their mechanical and electrical equipment and the hidden problem investigation in advance.

China Classification Society, domestic ship inspection institutions, and foreign ship inspection institutions in China shall strengthen their inspection and testing on the ships newly built, rebuilt, as well as repaired and renewed with respect to mechanical and electrical equipment, so as to improve their inspection quality and reduce the risk of mechanical and electrical equipment failure.

Our Suggestions

This special action is similar to the "Concentrated Inspection Campaign" scheme which is organized by the major PSC MoU around the world. During this special action, China MSA will inspect the mechanical and electrical equipment of ships entering Chinese ports. To ensure ships successfully pass the special inspection, we propose several countermeasures which are listed hereunder for the consideration of ships and their owners or managers:

1. Guided by the attached "Special Self-inspection Guidelines for Preventing Ship Mechanical and Electrical Equipment Failures" and in combination with the ship's "Pre-departure inspection checklist", the ship shall conduct detailed technical inspections and tests on the main propulsion device and its auxiliary equipment, boilers, main power supply, emergency power supply, steering device, etc., to ensure the ship's mechanical and electrical equipment are in a reliable working status and well prepared for the forthcoming inspection.

2. Assign sufficient and competent crew members onboard to meet various safety operation and emergency response requirements.

3. Ensure the ship safety management system (SMS), especially the parts related to the routine operation, maintenance, testing, emergency management, and accident/near miss reporting are effectively implemented. Crew members should be able to operate and test various mechanical and electrical equipment properly and

effectively in comply with corresponding procedures or instructions, and able to report mechanical and electrical equipment failure related accidents or near misses and rectify the deficiencies identified therefrom.

4. The SMS should contain drill and training plan that relevant to mechanical and electrical equipment failure, so that the ship can conduct drill or on-scene training in accordance with the plan, improve the operation and emergency response capabilities of the crew, and familiarize the crew with the emergency response measures and their respective emergency responsibilities in the event of mechanical and electrical failure accidents. The emergency drills/training scenarios related to mechanical and electrical equipment failures may include but are not limited to: main engine (M/E) failure, M/E emergency local control, blackout, emergency steering, operation and testing procedures for emergency generators, etc.

5. If a mechanical and electrical equipment failure accident occurs, appropriate actions and measures should be taken immediately to minimize or even eliminate the adverse effects of the accident. The ship should also proactively report to the local MSA and cooperate with and accept special safety inspection of the local MSA.

If you have any queries, please feel free to contact Huatai Beijing headquarter (pni.bj@huatai-serv.com) or its local branch offices.

Best regards,

CUI Jiyu

Head of Marine Team

Attachment

Special Self-inspection Guidelines for Preventing Ship Mechanical and Electrical Equipment Failures

Ships shall carry out self-inspection on their technical safety status as well as the mechanical and electrical equipment in accordance with international conventions, national laws, regulations and other relevant provisions, and conscientiously fulfill their primary safety responsibility of production.

1. Is the main propulsion device (prime mover) working properly

To prevent the failure of main propulsion device, it is necessary to carry out self-inspection on the fuel, gas, water and electricity, and shall mainly focus on the fuel system, lube oil system, air system, cooling water system and engine control system, etc.

(1) Is the fuel system of the main propulsion device working properly (oil supply unit, high-pressure oil pump, oil pipe, oil leakage monitoring, fuel heating, automatic switchover of fuel oil pumps (if fitted), etc.).

(2) Are the communication facilities on the bridge and the control console, such as the telegraph as well as the tachometers and other instruments in its vicinity in normal condition.

(3) Is the starting air system of the main propulsion device working properly (pressure of the main starting air bottle, main air compressor, main starting valve, air cylinder starting valve, air distributors, etc.).

(4) Is the M/E lube oil system working properly (are there any traces of leakage from

the pipeline and filter connector, is the pressure gauge reading normal, is the sensor connector secure, and the automatic switchover of the lube oil pumps (if fitted) etc.).

(5) Is the M/E cooling water system working properly (are there any traces of leakage from the pipeline and cooler, is the pressure gauge reading normal, whether the sensor connector is secure, and the automatic switchover of the cooling water pumps (if fitted) etc.).

(6) Is the control air system of the M/E working properly (pressure of the control air, whether the control air contains water, etc.).

(7) Measures for reverse the M/E (pitch control system of the controllable propeller, clutch).

2. Are the auxiliary equipment of the main propulsion devices, such as the safety protection and remote control system, etc. functioning properly

To prevent the failure of the safety protection system of the main propulsion device, self-inspection is required on the oil mist concentration detector, lube oil pressure loss protection, and reliability of the over-speed protect function, etc.

(1) Are the over speed alarm and emergency stop device of the main diesel engine functioning properly.

(2) Are the main diesel engine lube oil low pressure alarm, cylinder liner water high temperature alarm and automatic stop protection device functioning properly.

(3) Are the main diesel engine oil mist concentration detector and the main bearing temperature detector working properly. (only applicable to diesel engine power greater than 2250KW or cylinder inner diameter greater than 300mm with UMS on seagoing ships)

(4) Are there any alarm records related to the safety protection and automatic stopping devices of the main propulsion system in the centralized monitoring system. (applicable to seagoing ships only)

(5) Is the lube oil low-pressure alarm device of the gear box working properly, and is the lube oil high-temperature alarm device of the gear box with input power greater than 1470kW working properly. (applicable to seagoing ships only)

(6) Is the lube oil low-pressure alarm device for the gear box with input power greater than 370KW working properly, and is the lube oil high temperature alarm device for the gear box with input power greater than 1470kW working satisfactorily. (applicable to inland river ships only)

3. Is the ship's steam boiler working properly

The boiler can adjust the oil and water temperature through steam heating to ensure that the working condition of the diesel engines are within the normal scope. To prevent boiler failure, it is recommended to conduct self-inspection on the water supply system, combustion system, safety protection, etc.

(1) Is the water supply system working properly (the number of water supply pumps fitted, quality of water supply, water level indicator, etc.).

(2) Is the combustion system working normally (ignition, oil supply, air supply, etc.).

(3) Is the safety protection system working properly (safety valve, air supply, flame extinguishing, low water level alarm, etc.).

4. Is the ship's main power supply in normal condition

To avoid the main power failure, preventive self-inspection should be carried out on the prime mover, generator and the main distribution board.

(1) Is the main power supply capacity sufficient (focus on single or multiple group generator failures, and ships equipped with side thruster, as well as ships that have installed EGCS, BWTS additionally, etc.).

(2) Is the prime mover starts and runs properly (fuel, lube oil, cooling water, etc.).

(3) Is the safety protection system of the prime mover functioning properly (over speed protection, lube oil low-pressure, cooling water high-temperature, etc.)

(4) Are the main switchboard and generator control panel in normal condition (automatic start, stop, synchronization, unload, load distribution, graded unloading control of generator unit, etc.).

(5) Is the insulation monitoring function of the main switchboard working normally.

5. Is the emergency power supply working satisfactorily

Should the main power supply of a ship fails, the emergency power supply (mainly the emergency generator) can serve as an independent energy source to provide power for vital equipment such as the steering gear. The inspection of emergency power sources can be carried out by self-inspection on the emergency generator, emergency distribution board, emergency battery pack, etc.

(1) Is the emergency generator starts and operates satisfactorily. (fuel, lube oil, cooling water, etc.)

(2) Does the starting devices of emergency generator meet the requirements. (applicable to seagoing ships only)

(3) Is the reserve fuel for emergency generator sufficient.

(4) Is the mode switch of the automatic starting emergency generator placed in the automatic position.

(5) Can emergency equipment be powered within 45 seconds (within 30 seconds for inland river ships) in accordance with regulations when the main power is failed.

(6) Is the insulation monitoring function of the emergency distribution board working properly.

(7) Is the emergency battery pack functioning properly.

(8) Is the quick closing valve of the emergency generator fuel tank working properly.

(9) Are the switches of various load unit on the emergency generator distribution board placed in open position.

(10) Is check valve fitted on the supply pipeline of the emergency generator compressed air cylinder (located in the emergency generator room).

(11) Is the fuel leakage alarm of the emergency generator high-pressure oil pipeline functioning properly.

6. Is the steering device working properly

To ensure the effective operation of the steering device and to prevent steering device failure, self-inspection could be carried out on the power system, hydraulic system, alarm device and operation of the steering device.

(1) Is the steering device able to start automatically after power failure. (applicable to seagoing ships only)

(2) Is the steering device able to receive power within 45 seconds in the event of main power failure. (applicable to seagoing ships with a rudder stock diameter exceeding 230mm only)

(3) When a single failure occurs to the steering gear power equipment of electric control type, it should capable to switch to the standby power equipment within 10 seconds. (applicable to inland ships only)

(4) Is the capacity of the hydraulic oil storage tank of the steering device sufficient to refill at least one power actuation system (including the reservoir).

(5) Are the audible and visual low level alarm (both on the bridge and in the machine space) of the steering device hydraulic oil reservoir functioning properly.

(6) Is the sound and light alarm (short circuit protection, overload alarm, phase failure alarm) of the steering device functioning properly (in the M/E space or in the ECR and bridge where the M/E is normally controlled). (applicable to seagoing ships only)

(7) Is the steering performance test satisfied.

(8) Are the communication facilities between the bridge and the steering gear compartment in good condition.

7. Are the crew members competent and familiar with the operation of the mechanical and electrical equipment under their responsibilities

To prevent ship mechanical and electrical failures caused by human factors such as improper operation, it is recommended to conduct self-inspection from aspects of

crew certification, ship manning, practical operation and emergency response capabilities of the crew members, etc.

(1) Are the crew members hold valid “Certificate of Competency” and dose the ship meets the minimum safety manning requirements.

(2) Are the crew members have effective language communication during their routine work and in emergency situations.

(3) Is the responsible crew familiar with the operation, testing, and emergency response procedures of the main propulsion device (lube oil and cooling system high temperature alarm test, over speed alarm test, fuel casing failure (leakage) alarm test, emergency procedures of emergency shutdown and M/E failure, etc.).

(4) Is the responsible crew familiar with the operation, testing, and emergency response procedures of the ship's boilers (low water level, flame extinguishing, air supply alarm, etc.).

(5) Is the responsible crew familiar with the operation, testing, and emergency response procedures of the ship's main power supply (fuel oil leakage alarm test, main generator synchronization and unload test, insulation test, blackout emergency response procedures, etc.).

(6) Is the responsible crew familiar with the operation, testing, and emergency response procedures of the emergency generator (start-up, synchronization and unload of the emergency generator).

(7) Is the responsible crew familiar with the operation, testing, and emergency response procedures of the steering device (switchover of the steering gear system, pre-departure inspection and testing of the steering gear, steering device alarm test, emergency steering drills, etc.).

8. Are the SMS documents related to mechanical and electrical equipment effectively implemented onboard

Whether the system documents related to mechanical and electrical equipment are effectively implemented onboard is vital in preventing mechanical and electrical equipment failures. The self-inspection should be conducted mainly on the onboard resources and human resources, onboard operation plan formulation, emergency preparedness, reporting and analysis of accidents and near misses, as well as the maintenance of the ship and equipment.

(1) Does the company ensure that the master receives necessary support (ship shore communication records, application and supply records of spare parts and provisions, SMS document reports, technical supports, etc.).

(2) Dose the company assigns qualified and certified crew members to meet various safety operation requirements onboard.

(3) Does the company ensure that crew members can effectively communicate while fulfilling their SMS responsibilities.

(4) Does the company establish procedures, plans, or instructions for the operation of mechanical and electrical equipment.

(5) Does the company list the mechanical and electrical equipment failures in emergency situations, identify them and develop emergency response procedures (emergency operations and drills on M/E, blackout and steering gear, etc.).

(6) Does the company develop and effectively implement a maintenance plan for mechanical and electrical equipment.

9. Other issues that may cause mechanical and electrical equipment failures

In addition to the inspection of the mechanical and electrical equipment itself, attention should also be paid to the possibility that other systems may cause problems to the ship's mechanical and electrical equipment. For example, the malfunction of the fuel quick closing valve may cause accidental interruption of the fuel supply to the main/auxiliary engines, manual emergency shutdown of the equipment due to crew injure which attributed to the absence of protective facilities for mechanical and electrical equipment, or engine room flooded due to bilge water system failure. Additional attention should also be paid to the crew fatigue onboard and to the ships leaving the shipyard after maintenance.

Temporary Traffic Control Measures Implemented in the Waters near Jiangyin Bridge in the Yangtze River

长江江阴大桥上下游实施临时交通管控措施

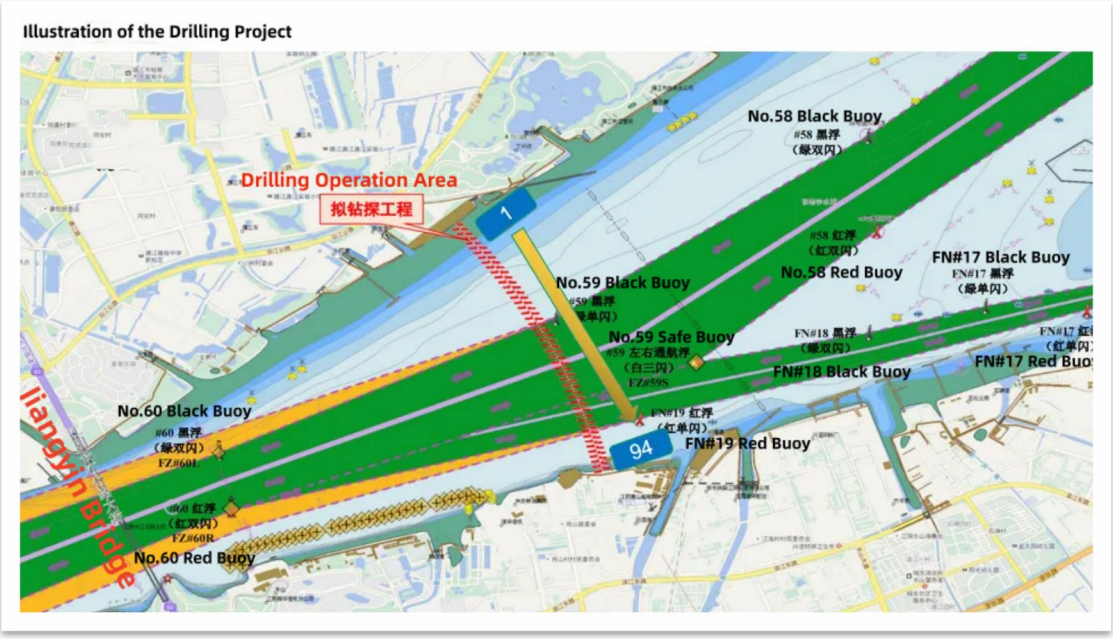
The first phase of water drilling operation for the "Yan Tai Xi Chang Yi" railway river crossing tunnel project (Zone 4, Zone 8) will be carried out 24/7 from April 22 to May 17, 2024. To ensure the safety of navigation and construction, Jiangsu MSA issues a notice on the implementation of temporary traffic control measures in the waters near the Jiangyin Bridge, and announcing that the navigation routes and methods in the affected waters shall be temporarily adjusted based on the progress of the project.

盐泰锡常宜铁路过江隧道工程水上钻探施工作业第一阶段（第 4 分区、第 8 分区）于 2024 年 4 月 22 日-5 月 17 日全天候施工。为了保证船舶航行和施工的安全，江苏海事局发布了关于江阴大桥附近水域临时交通管制的通知，提出将根据工程进展情况临时调整航路航法。

Project Overview

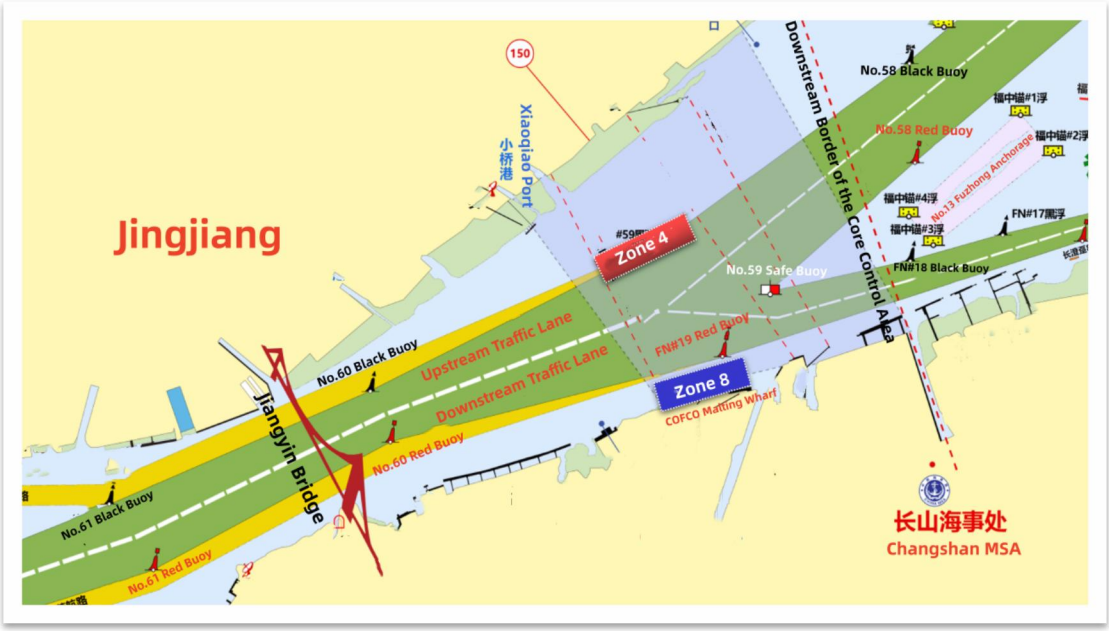
工程概况

Illustration of the Drilling Project



The construction area is located between the No.59 and No.60 buoy of the Yangtze River, around 3.7 km downstream of the Jiangyin Bridge. The south part of the construction area is close to the upstream of the Jiangyin COFCO Malt Wharf, and the north part of the construction area is located around 800 meters downstream of Xiaoqiao Port of Jingjiang.

本工程作业所在水域位于江阴大桥下游约 3.7km 处，#59 至#60 浮水域之间，长江南岸位于江阴中粮麦芽码头上端，长江北岸位于靖江小桥港下游约 800m。

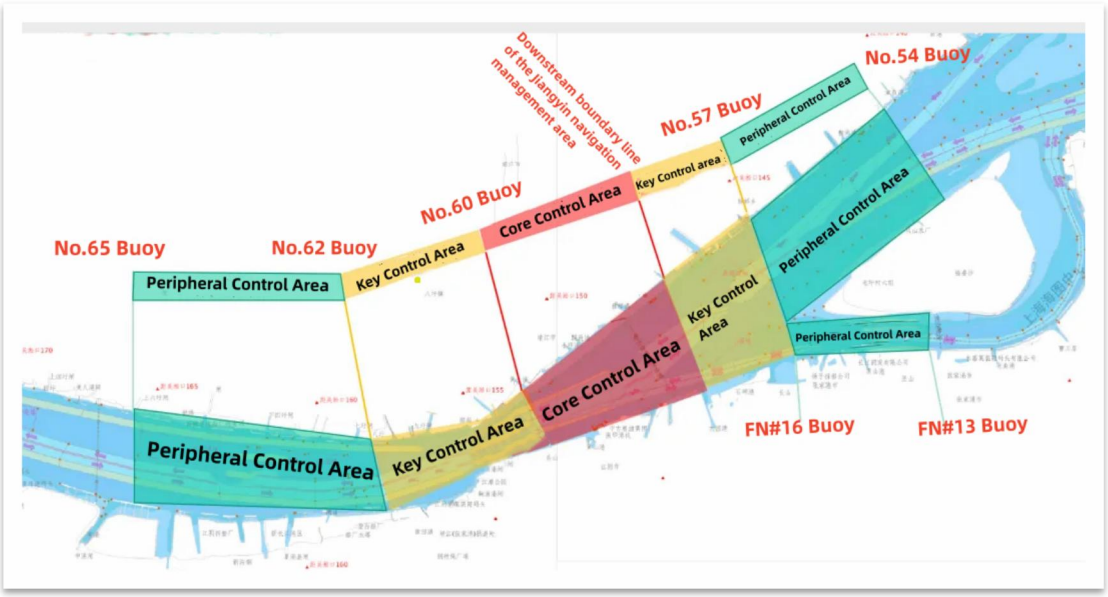


The recently launched first phase project involves the simultaneous construction in Zone 4 and Zone 8. Construction in Zone 4 is conducted from south to north successively while the construction in Zone 8 is conducted from north to south. The affected water area consists of the navigable waters north of the joining line of the Yangtze River No.58 and No.60 black buoy, a part of the upstream traffic lane, the waters south of the upstream of the Yangtze River No.59 buoy and the waters adjacent to the COFCO Malt Wharf.

近期开展的第一阶段是第 4 分区和第 8 分区同时施工，4 区由南向北依次施工，8 区由北至南依次施工。所在水域为长江#58 和#60 黑浮联线北侧可航水域和部分上水通航分道、长江#59 左右通航浮上游南侧水域和中粮麦芽码头前沿。

Basic Requirements for Traffic Organization during the Construction Period

施工期间交通组织基本要求

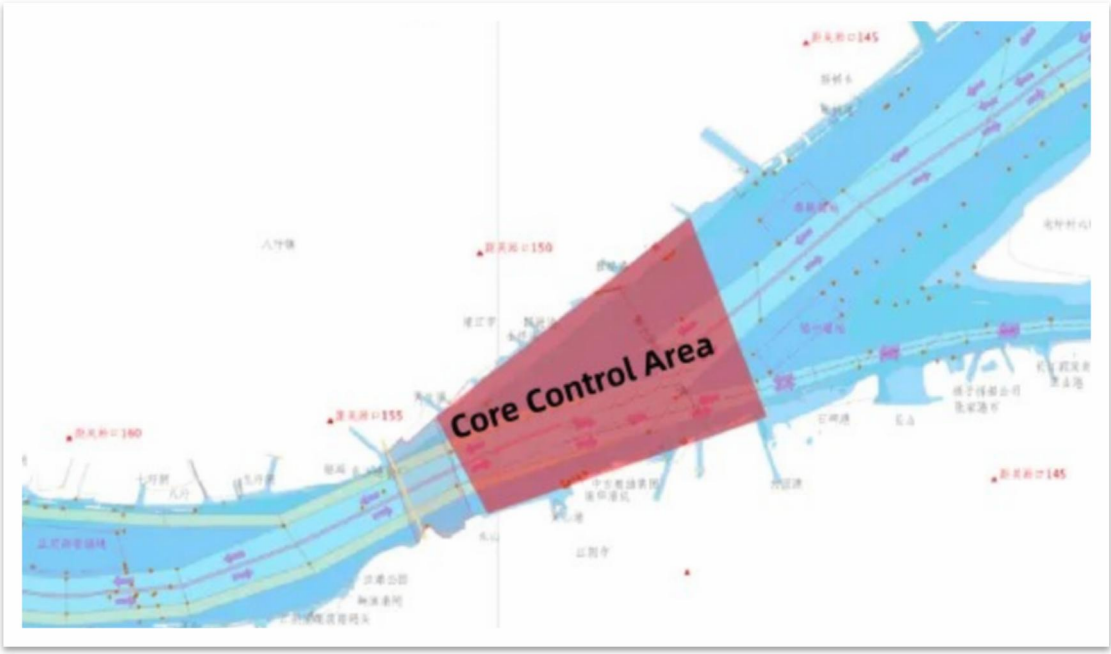


01 Core Control Area

01 核心管控区

The core control area is the water area between the joining line of Yangtze River No.60 buoys and the downstream boundary line of the Jiangyin navigation management area.

核心管控区为长江#60 对浮联线至江阴辖区通航管区下界联线之间的水域。



(1) **Restricted ship speed.** Ship's speed in the core control area shall maintain at 6-10 knots.

Ships that do not meet the speed requirements must take safety measures recognized by the MSA to safely pass this water area.

(1) **限制船舶航速。**限速 6-10 节，不满足航速要求的，需要采取海事认可的维护措施安全通过。

(2) **Strict control the manoeuvre of ships.** Ships are prohibited from turning around (except for ships exiting the Funan waterway), drifting, or prolonged parallel sailing. In addition, overtaking is prohibited for ships over 110 meters.

(2) **严格管制船舶。**船舶禁止掉头（出福南水道船舶除外）、淌航、长时间并行，110 米以上船舶禁止追越。

(3) **Implement tugboat assistance.** Ships of 150 meters and above leaving the Funan waterway and crossing the river then navigating upstream or turning around shall require tugboat assistance until entering the traffic lane. Ships of 150 meters and above entering the Funan waterway shall require tugboat assistance before crossing the river until reaching the wharf.

(3) **实行拖轮维护。**出福南水道 150 米及以上船舶划江上行或掉头需拖轮维护至通航分道，进福南水道 150 米及以上船舶划江前需拖轮维护至码头。

(4) **Control the meeting of ships.** Ships over 205 meters shall avoid, and ships over 250 meters are prohibited from meeting with each other in the core control area. In cases giving way is required, upstream ships should give way to downstream ships. The upstream ships shall not proceed until the downstream ships pass through the core control area.

(4) **管控会遇船舶。**205 米以上船舶避免会遇，250 米以上船舶禁止会遇，遇到需要等让情况时，顶流船应避让顺流船，待顺流船通过核心管控区后再通过。

(5) **Ensure berthing safety.** Ships proceeding to the south bank wharf in the Changshan port area of Jiangyin shall have tugboats on standby before entering the core control area.

(5) **确保靠泊安全。**靠泊江阴长山港区南岸码头的船舶进入核心管控区时带好拖轮。

(6) **Maintain safe distance.** Ships should maintain a minimum of 50m safety distance from the construction area while navigating.

(6) **保持安全间距。**船舶航行应与施工区域保持至少 50m 的安全距离。

Special Reminder: During the construction period, ships with a length of 205 meters and a draft of 11 meters and above should implement the required safety measures to pass through the core control area. Ships with a length of 250 meters and a draft of 11 meters and above should avoid passing through the core control area during the night time (2200 hours - 0500 hours of the next day).

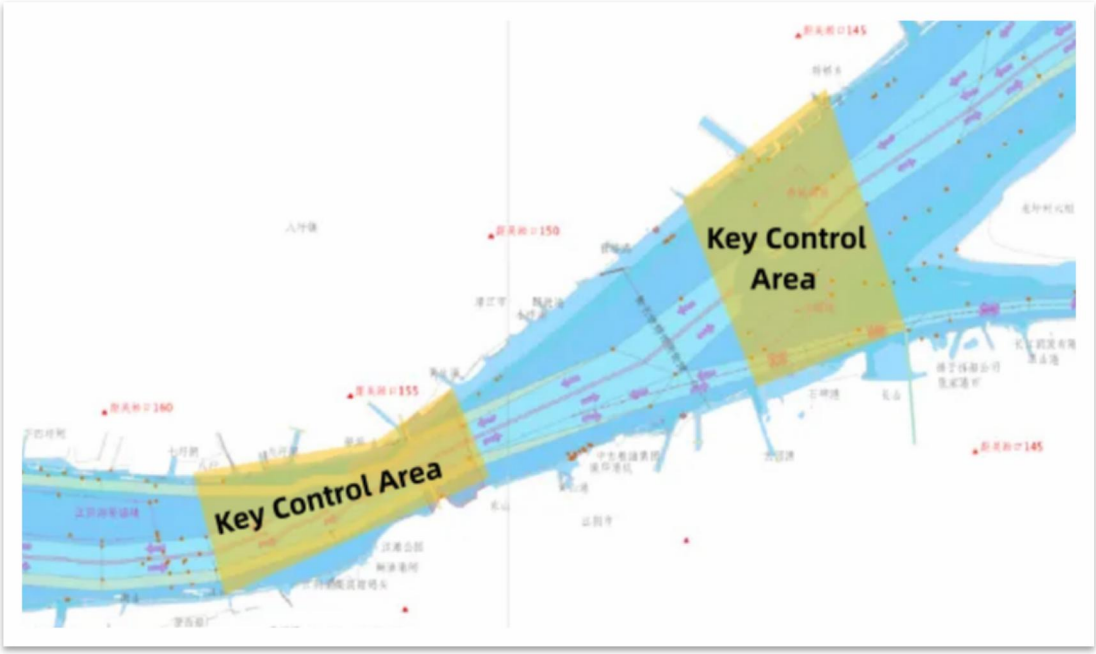
特别提醒：工程施工期间，船长 205 米和吃水 11 米及以上船舶应按要求落实维护措施通过核心管控区，船长 250 米和吃水 11 米及以上船舶应避免夜间（2200 时-次日 0500 时）通过核心管控区。

02 Key Control Area

02 重点管控区

The key control area consists of the water area from the joining line of Yangtze River No.60 buoys to the joining line of No.62 buoys, and the water area between the downstream boundary line of the Jiangyin navigation management area and the joining line of No.57 buoys and the downstream boundary line of Jiangyin land jurisdiction area.

重点管控区域包含长江#60 对浮联线至#62 对浮联线之间的水域以及江阴辖区通航管区下界联线至#57 对浮和江阴陆域管辖下界联线之间的水域



(1) The maximum speed in the key control area is 13 knots and the minimum speed limit is not set, but it must meet the requirements of the "Regulations on the Ship's Routing System of Jiangsu Section of Yangtze River (2021)".

(1) 重点管控区内最高限速 13 节，不设置最低限速，但应满足《长江江苏段船舶定线制规定（2021 年）》要求。

(2) Ships should gradually adjust their positions and speed when navigating in the key control area, and should meet the conditions of passing through the core control area before entering the core control area.

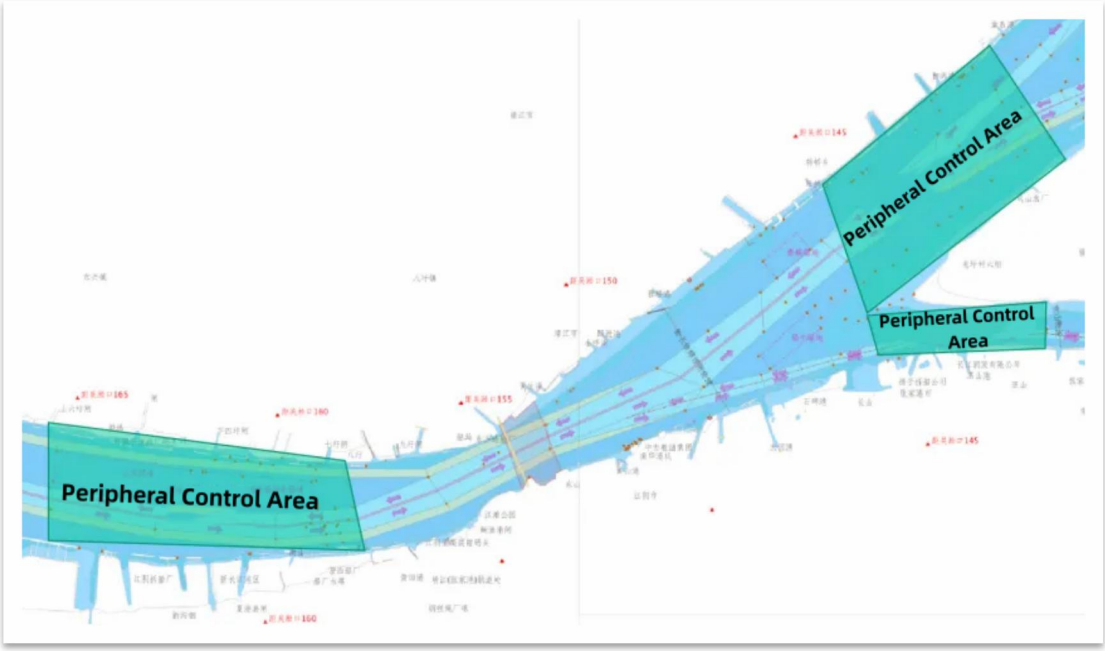
(2) 重点管控区内，船舶应逐渐调整船位和船速，在进入核心管控区前应满足通过核心管控区的条件。

03 Peripheral Control Area

03 外围管控区

The peripheral control area consists of the water area between the joining line of Yangtze River No.62 buoys and the joining line of the No.65 buoys, and the water area from the joining line of No.57 buoys and the downstream boundary line of Jiangyin land jurisdiction area to the joining lines of No.54 buoys and FN#13 buoys.

外围管控区包含长江#62 对浮联线至#65 对浮联线之间的水域以及长江#57 对浮和江阴陆域管辖下界联线至#54 对浮和 FN#13 对浮联线所围成的水域



When navigating within the peripheral control area, ships should promptly collect navigation information, observe navigation trends, and make early maneuvers to avoid the formation of complex situations.

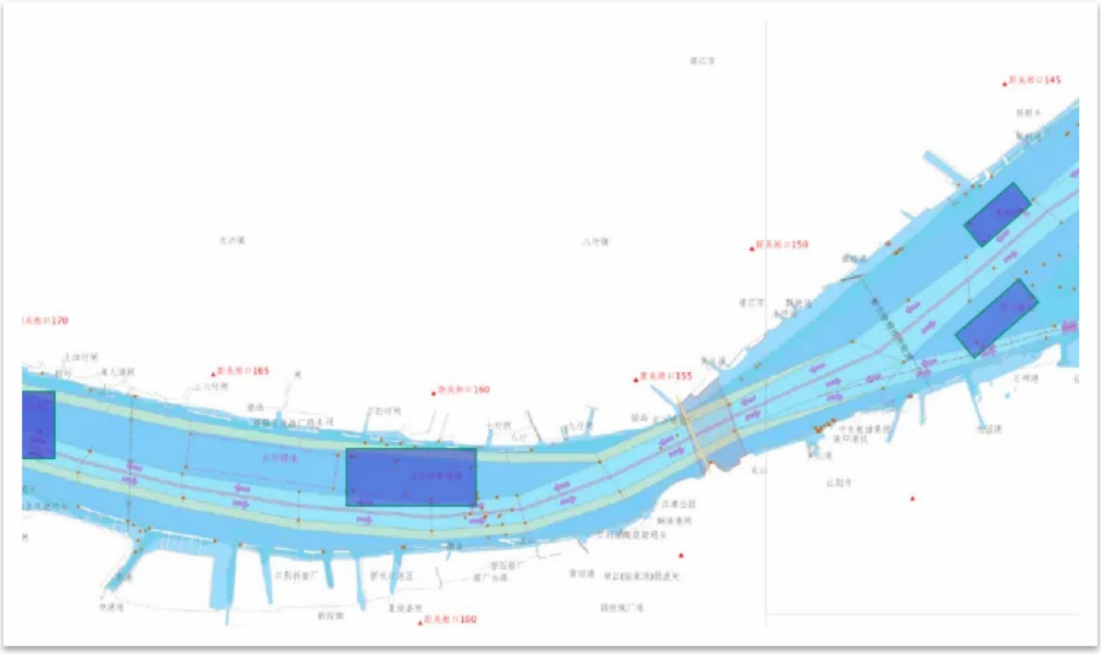
船舶在外围管控区内航行时，应及时收集航行信息、观察航行态势，及早进行船舶操纵，避免形成复杂局面。

04 Emergency Anchor Points

04 应急锚泊点

A ship can apply for anchor position at the emergency anchor points if she encounters emergency situations such as malfunctions or encountering abrupt navigation control or restriction due to poor visibility and other bad weather.

船舶遇到故障等紧急情况或者突发能见度不良等恶劣天气实施禁限航管控时，可在应急锚泊点申请锚位。



(1) Temporary anchor points reserved for upstream ships:

Area I of No. 12 seagoing ship anchorage and Pangqi Seagoing ship anchorage. (Arranged by the Zhangjiagang VTS Center and the Jingjiang Quick Response Center of Taizhou MSA according to the jurisdiction of the anchorage)

(1) 上行船舶预留临时锚泊点:

12 号海轮锚地 I 区、螃蜞海轮锚地。（由张家港海事局 VTS 中心、泰州海事局靖江快反处置中心按照锚地隶属关系进行安排）

(2) Temporary anchor points reserved for downstream ships:

Jiangyin No. 14/15 temporary anchorage. (Coordinated by the Jiangyin VTS Center)

(2) 下行船舶预留临时锚泊点:

江阴 No.14/15 临时停泊区。（由江阴海事局 VTS 中心统筹协调）

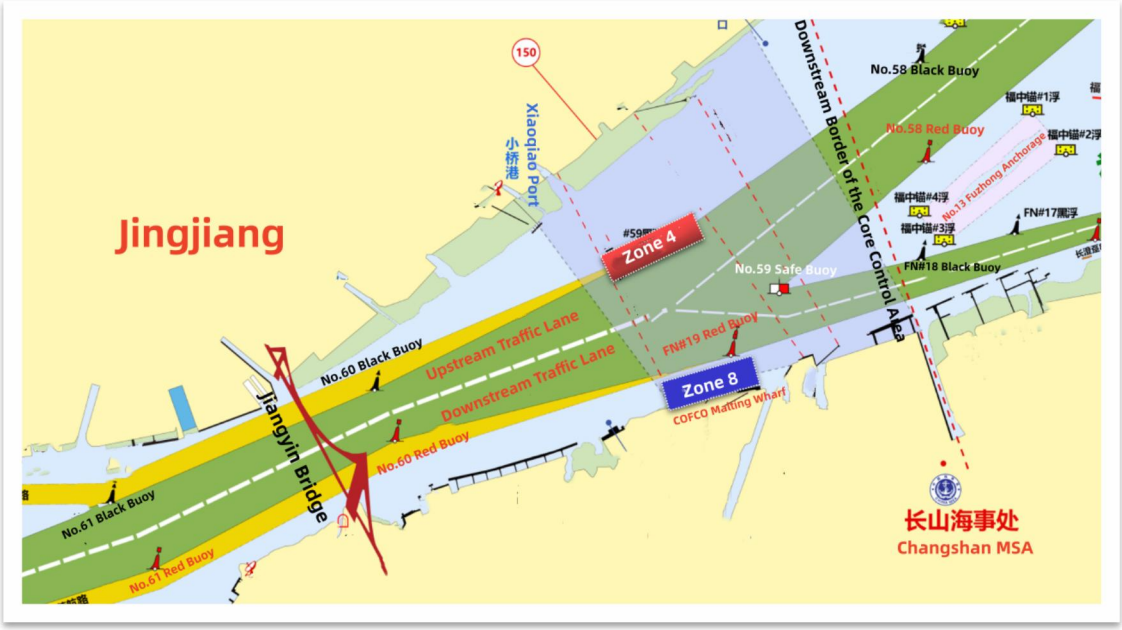
Navigation Routes and Methods during the Construction Period

施工阶段航路航法

The first phase (Zone 4, Zone 8) is planned for around-the-clock construction from April 22 to May 17. The Yangtze River No.59 black buoy will be temporarily removed, and warning buoys

will be set up around each construction zone.

第一阶段（第 4 分区、第 8 分区）计划于 4 月 22 日-5 月 17 日全天候施工，临时撤销长江 #59 黑浮，在各分区周边设置警示浮。



01 Routine Traffic Flow

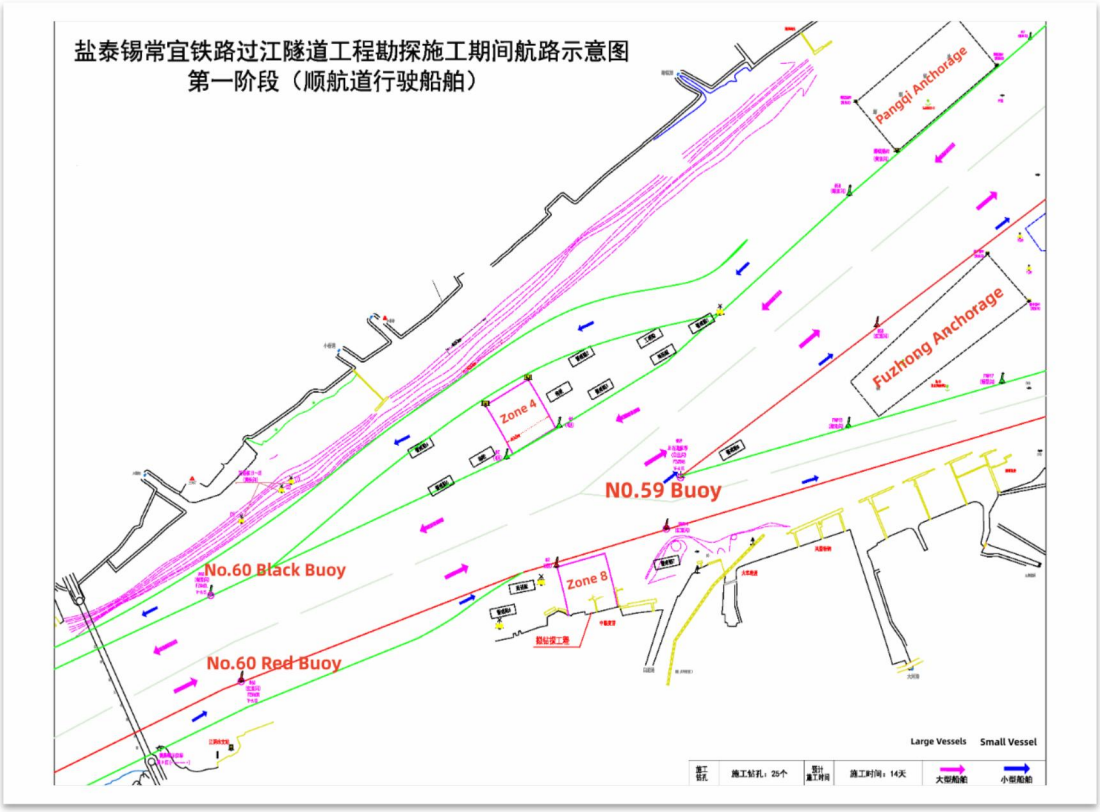
01 正常船流

(1) Ships within the deep-water channel can proceed normally along the adjusted route.

(1) 深水航道内船舶沿调整后航路正常通行。

(2) Upstream small ships shall pass through the navigable waters on the north side of Zone 4. Downstream ships navigating in the recommended channels and coastal small ships should join the deep-water channel in advance and proceed downstream uniformly.

(2) 上行小型船舶在 4 区北侧可航水域通行。下行推荐航路及沿岸小型船舶提前汇入深水航道统一下行。



02 Exit Ships from Funan Waterway

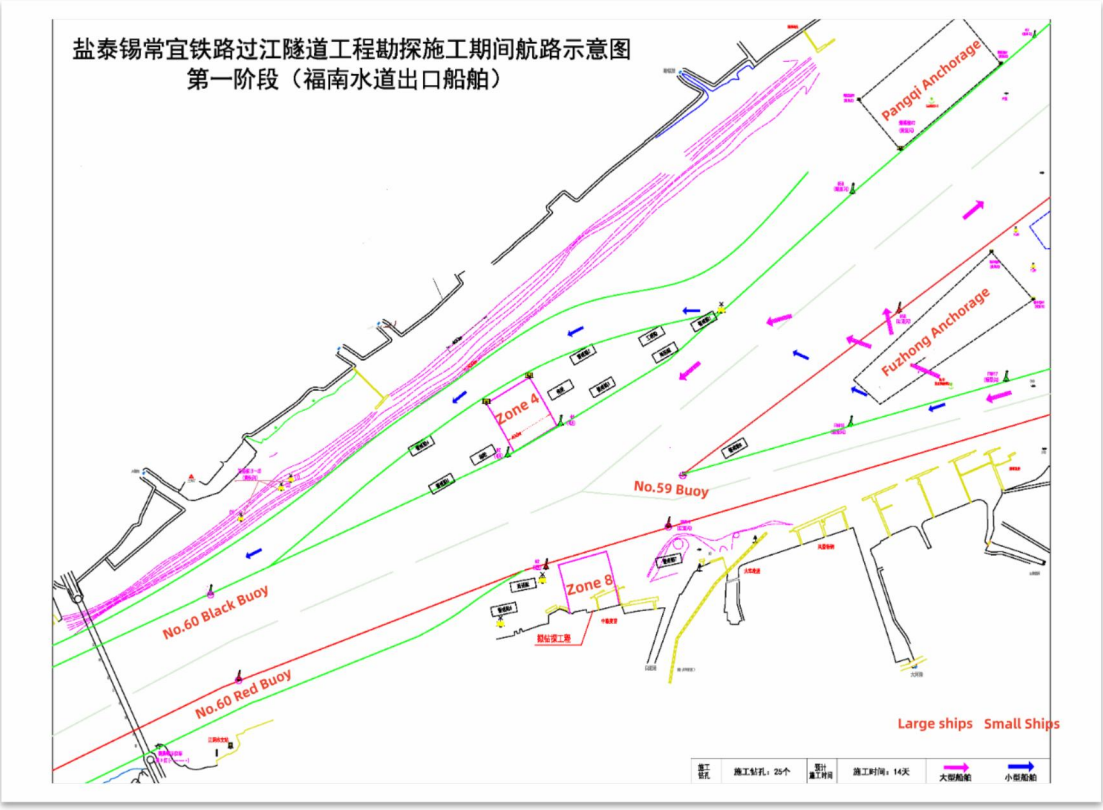
02 福南水道出口船舶

(1) Upstream ships exiting the Funan waterway must cross between FN#17 and FN#18 buoys, join the upstream traffic flow and proceed upstream uniformly.

(1) 出福南水道上行船舶须在 FN#17 浮-FN#18 浮之间横越，汇入上行船舶流，统一上行。

(2) ships leaving the Funan waterway and entering the Funzhong waterway must maintain a safe distance to the construction area, turn around between FN#17 and FN#18 buoys then proceed downstream to avoid entering the construction area by mistake.

(2) 出福南水道进入福中水道船舶，须与施工水域保持一定安全间距，在 FN#17 浮-FN#18 浮之间掉头下行，避免误入施工区。



03 Berthing and Departing Ships at the South Bank Wharf

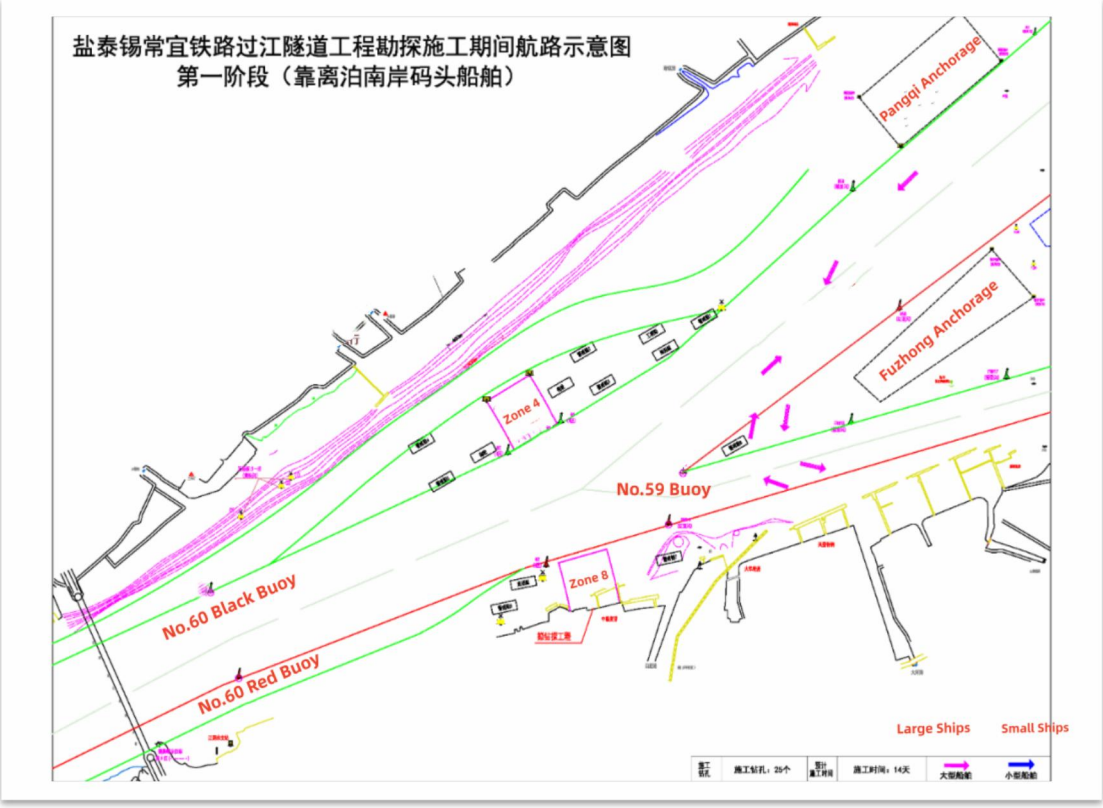
03 靠离泊南岸码头船舶

(1) Large ships coming from downstream to berth at the south bank wharf should choose opportunity to cross river after passing the No.58 black buoy, then cross the Funan waterway and chose appropriate route to berth via the downstream of the construction area.

(1) 下游来船靠泊南岸码头的大型船舶在#58 黑浮后择机横越，在施工水域下游再择机横越福南水道，选择航路靠泊码头。

(2) Construction operations in Zone 8 are prohibited during the period of ships berthing at COFCO Malt Wharf.

(2) 中粮麦芽码头船舶靠泊期间，禁止 8 区施工作业。


盐泰锡常宜铁路过江隧道工程勘探施工期间航路示意图
第一阶段（靠离泊南岸码头船舶）
Pangqi Anchorage
Fuzhong Anchorage
Zone 4
Zone 8
No.59 Buoy
No.60 Black Buoy
No.60 Red Buoy
Large Ships
Small Ships

BRITANNIA LOSS PREVENTION

GUIDANCE

APRIL 2024

FLIGHTED SPONGY MOTH COMPLEX

THE LYMANTRIA DISPAR, ALSO KNOWN AS THE FLIGHTED SPONGY MOTH COMPLEX (FSMC), IS A SPECIES OF MOTHS, NATIVE TO CHINA, FAR-EAST RUSSIA, AND OTHER COUNTRIES OF THE ASIA-PACIFIC, SUCH AS JAPAN AND KOREA.

Spongy refers to the characteristic of the moth eggs which resemble a sponge-like mass. FSMC is a highly destructive pest posing a severe biosecurity risk. If transferred to non-native locations, the FSMC population is also less likely to encounter limitations imposed by natural barriers, such as predators, parasites, viruses, and competing species.

FIGURE 1 Spongy moth

LIFE CYCLE AND FLIGHT SEASON

THE FSMC LIFE CYCLE PROGRESSES THROUGH SEVERAL STAGES, TRANSFORMING FROM EGGS TO CATERPILLARS, THEN EVOLVING INTO PUPAE ENCASED IN COCOONS, BEFORE REACHING THE ADULT STAGE AS THE FINAL PHASE. CATERPILLARS FEEDING ON LEAVES CAUSE THE DESTRUCTION THAT RENDERS FSMC A BIOSECURITY RISK.

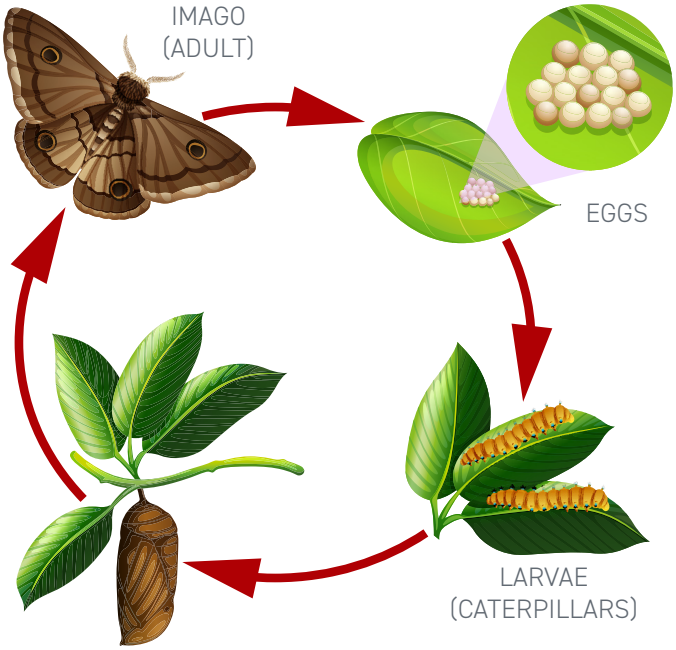


FIGURE 2 Moth life cycle

Female moths lay eggs during the 'flight season', typically between May and October depending on the geographical location. To lay their eggs, they can fly as far as 40km, which contributes to the invasive potential of FSMC.

KEY POINTS

- FSMC is a destructive pest with the potential to cause severe damage to the environment
- Eggs laid onboard ships can transfer FSMC to new locations
- During flight season, female moths are attracted to lights and may lay eggs in sheltered spots on a ship's hull, structures, equipment, and cargo
- FSMC eggs will survive almost any weather condition and temperature.

COUNTRY-SPECIFIC REQUIREMENTS

SEVERAL COUNTRIES HAVE INTRODUCED POLICIES AND REGULATIONS AIMED AT PREVENTING THE INTRODUCTION OF FSMC.

If ships in these countries are discovered to be contaminated with FSMC egg masses, authorities may reject or subject them to quarantine measures. This could then lead to losses, substantial delays, and costly claims.

Consequently, masters, as well as owners and operators trading in the regulated areas, should be aware of the applicable requirements.

In the regulating countries, ships must declare whether they have called at ports in areas designated as FSMC ('regulated areas') during the current or previous flight season ('specified risk period'). The majority of regulating countries also require ships to certify that they are free of FSMC on departure from the regulated area.

Furthermore, ships may be subject to an inspection on arrival to verify they are free of FSMC. These inspection regimes may be periodically tightened depending on the season and weather.

In addition to inspections and certification, some regulating countries require ships to complete a self-inspection before arrival. It is recommended that ships have a robust self-inspection routine in place, to address these requirements and to prevent them from arriving at ports with FSMC egg masses (self-inspection is discussed further below).

- Ships calling at ports in regulated FSMC areas during the risk period could be subject to procedural requirements in various destination states
- Ships typically need inspection before leaving the regulated area to demonstrate they are free of FSMC
- The ship must follow a notification procedure and provide the required documentation before arriving at a port in a destination state with a FSMC policy
- The ship may require self-inspection while on route.

KEY POINTS

The regulated areas, specified risk periods, and the associated requirements may differ from country to country.

The following summary outlines the requirements in countries with FSMC regulations for incoming ships. These requirements are subject to change and other countries may also introduce regulations. It is important that shipowners monitor the current situation closely and always contact their local representative before arrival.

UNITED STATES

The United States Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS) maintains a dedicated website for its FSMC programme. This website provides links to further resources, such as applicable federal regulations and orders and reference material on pest identification.

The United States and Canada collaborate on measures to minimise the risk of FSMC incursion. At the time of writing, Canada and the United States' latest Joint FSMC Industry Notice was issued in February 2024.

Both the United States and Canada base their FSMC policy on the specified risk periods published by the North American Plant Protection Organization (NAPPO).

U.S. AND CANADA REGULATED AREAS AND SPECIFIED RISK PERIODS

COUNTRY	PORT OF PREFECTURE	SPECIFIED RISK PERIOD*
RUSSIAN FAR EAST	Nakhodka, Ol'ga, Plastun, Pos'yet, Russkiy Island, Slavyanka, Vanino, Vladivostok, Vostochny, Zarubino, Kozmino	June 15 to October 15
PEOPLE'S REPUBLIC OF CHINA	All ports in northern China, including all ports on or north of 31°15′	June 1 to September 30
REPUBLIC OF KOREA	All ports	June 1 to September 30
JAPAN – NORTHERN	Akita, Aomori, Fukushima, Hokkaido, Iwate, Miyagi, Yamagata	June 15 to October 15
JAPAN – CENTRAL	Aichi, Chiba, Fukui, Ibaraki, Ishikawa, Kanagawa, Mie, Niigata, Shizuoka, Tokyo, Toyama	June 1 to September 30

CONTINUED ON NEXT PAGE

COUNTRY	PORT OF PREFECTURE	SPECIFIED RISK PERIOD*
JAPAN – SOUTHERN	Ehime, Fukuoka, Hiroshima, Hyogo, Kagawa, Kagoshima, Kochi, Kumamoto, Kyoto, Miyazaki, Nagasaki, Oita, Okayama, Osaka, Saga, Shimane, Tokushima, Tottori, Wakayama, Yamaguchi	May 15 to August 31
JAPAN – FAR SOUTHERN	Okinawa	May 25 to June 30

**Specified risk period is the period when there is a risk of FSMC flight and egg mass deposition*

SOURCE: Joint FSMC Industry Notice, February 2024

THE FOLLOWING REQUIREMENTS APPLY TO SHIPS THAT HAVE CALLED AT REGULATED AREAS DURING THE SPECIFIED RISK PERIOD IN THE LAST 24 MONTHS:

1 Vessel should be inspected and certified free of FSMC by a recognised certification body. A copy of the certificate should be forwarded to the ship's agents. A certificate is valid until the ship calls at another port in a regulated FSMC area during the specified risk period.

2 Vessels must perform a self-inspection on route to find, remove, and destroy all FSMC life stages before entering a port.

3 Vessels must provide port of call data (two years), at least 96 hours prior to arrival to the ship's Canadian or U.S. agent.

Upon receiving the pre-arrival information, the U.S. Department of Homeland Security's Customs and Border Protection (CBP) will determine whether the ship needs to be boarded on arrival for FSMC inspection. The FSMC programme lists the following enforcement monitoring actions:

1 Certified vessels (vessels issued with a pre-departure FSMC inspection certificate from an approved entity in a regulated area) certificates along with additional research will be used for risk assessment to determine the need for inspection.

2 Non-certified vessels will receive an FSMC inspection at all U.S. ports when the itinerary suggests FSMC risk.

3 If FSMC is suspected on a vessel, re-inspections at subsequent ports will occur.

4 If FSMC is detected, vessels are subject to receive removal orders and be removed from the port.

CANADA

The summary of FSMC requirements is available on the Canadian Food Inspection Agency (CFIA) website.

Canada and the United States have harmonised their requirements related to FSMC. At the time of writing, the latest Joint FSMC Industry Notice was issued in February 2024. For the summary, please see the United States section above.

In 2017, the CFIA issued a policy clarification stating that the Canadian policy does not exempt bunkering locations. Therefore, ships should obtain inspection certification from all locations in the regulated area, including when bunkering at anchorage within these areas.

The CFIA notice states that during the high FSMC risk period in Canada (1 March - 15 September in Western Canada, and 15 March - 15 September in Eastern Canada), all 'uncertified vessels' (ships

without an FSMC certificate issued after calling at a regulated area) will be directed to an offshore anchorage location for inspection by the CFIA. To avoid diversion upon arrival, vessels must obtain FSMC certification from at least the last port of call in a regulated area, or anytime afterward, before entering Canadian waters.

CHILE

The agency responsible for the FSMC policy is the Chilean Servicio Agrícola y Ganadero (SAG - Agriculture and Livestock Service). SAG maintains a website dedicated to FSMC. Chilean requirements have been published in Resolution 4412/2013, amended by resolutions 8870/2015 and 8394/2021.

Similar to the United States and Canada, Chile has harmonised its FSMC policy with regulated areas and specified risk periods published by NAPPO.

CHILE REGULATED AREAS AND SPECIFIED RISK PERIODS

COUNTRY	SPECIFIED RISK PERIOD
RUSSIAN FAR EAST	June 15 to October 15
SOUTH KOREA	June 1 to September 30
NORTH KOREA	June 1 to September 30
NORTHERN CHINA (ON OR NORTH OF 31°15')	June 1 to September 30
JAPAN – NORTHERN (HOKKAIDO, AOMORI, IWATE, MIYAGI, FUKUSHIMA, AKITA, YAMAGATA)	June 15 to October 15
JAPAN – CENTRAL (NIIGATA, TOYAMA, ISHIKAWA, FUKUI, IBARAKI, CHIBA, TOKYO, KANAGAWA, SHIZUOKA, AICHI, MIE)	June 1 to September 30
JAPAN – SOUTHERN (WAKAYAMA, OSAKA, KYOTO, HYOGO, TOTTORI, SHIMANE, OKAYAMA, HIROSHIMA, YAMAGUCHI, KAGAWA, TOKUSHIMA, EHIME, KOCHI, FUKUOKA, OITA, SAGA, NAGASAKI, MIYAZAKI, KUMAMOTO, KAGOSHIMA)	May 15 to August 31
JAPAN – FAR SOUTHERN (OKINAWA)	May 25 to June 30

SOURCE: Chile Resolution 8394/2021

Ships that have visited regulated areas during a specified risk period within the last 24 months must supply SAG with a list of the ports they visited during that time frame. Additionally, they must provide a certificate, issued by a recognised organisation, confirming they were free of FSMC upon departure from the last port in the regulated area. This documentation must be provided by the ship's representative/ agent at least 24 hours before the ship arrives at a Chilean port. The agency will conduct SAG inspections based on its risk assessment, which will also dictate the inspection's scope and location. Inspections will occur during daylight hours.

Further online resources published by SAG include FSMC inspection requirements and information posters in English for ships.

ARGENTINA

The agency responsible for the FSMC policy in Argentina is Servicio Nacional de Sanidad y Calidad Agroalimentaria (SENASA - National Food Safety and Quality Service). The summary of applicable regulations are available here. FSMC is regulated by Resolutions 533/2022 and 764/2020.

Regulated areas and specified risk periods in Argentina have been partly harmonised with NAPPO and at the time of writing, last revised by Annex II to Resolution 533/2022.

It should be noted that Argentina defines regulated areas as all ports between latitudes 60°N and 20°N in listed countries. All Chinese ports have been listed as a regulated area (whilst NAPPO only included Chinese ports on or north of 31°15'N). Also, in Japan, there are several differences in assigning prefectures to specified risk period groups, compared with NAPPO – which results in different dates.

ARGENTINA REGULATED AREAS AND SPECIFIED RISK PERIODS

COUNTRY/ZONE	AREA/PREFECTURE	SPECIFIED RISK PERIOD
RUSSIAN FAR EAST	Petropavlovsk-Kamchatskiy; Vanino; Nevelsk; Kholmsk; Korsakov; Kozmino; Slavyanka; Posiet; Zarubino; Vostochny; Nakhodka; Vladivostok	June 15 to October 15
PEOPLE'S REPUBLIC OF CHINA	All ports in northern China	June 1 to September 30
KOREA	Busan; Jinhae; Masan; Tongyeong; Jangseongpo; Okpo; Gohyeon; Incheon; Pyeongtaek-Dangjin; Daesan; Taean; Donghae-Mukho; Okgye; Hosan; Ulsan; Pohang; Gwangyang; Hadong; Samcheonpo; Yeosu; Gunsan; Mokpo; Boryeong	June 1 to September 30
JAPAN – NORTHERN	Aomori, Fukushima, Hokkaido, Iwate, Miyagi	June 15 to October 15
JAPAN – WESTERN	Akita, Ishikawa, Niigata, Toyama, Yamagata	June 1 to September 30
JAPAN – EASTERN	Aichi, Chiba, Fukui, Ibaraki, Kanagawa, Mie, Shizuoka, Tokyo	June 1 to September 30
JAPAN – SOUTHERN	Ehime, Fukuoka, Hiroshima, Hyogo, Kagawa, Kagoshima, Kochi, Kumamoto, Kyoto, Miyazaki, Nagasaki, Oita, Okayama, Osaka, Saga, Shimane, Tokushima, Tottori, Wakayama, Yamaguchi	May 15 to August 31
JAPAN – FAR SOUTHERN	Okinawa	May 25 to June 30

SOURCE: Annex II, Áreas de Origen y Períodos de Vuelo de las Hembras, August 2022

Ships that have visited regulated areas during a specified risk period in the last 24 months must furnish SENASA with a list of ports visited during the same period. They must also submit a copy of the FSMC-free certificate issued by a recognised organisation upon departure from the last port in the regulated area.

Ships that visited regulated areas outside of specified risk periods within the last 24 months, must also provide a list of ports visited during that timeframe. This documentation should be provided to SENASA by the ship's agent at least 72 hours before the ships arrival at an Argentinian port.

SENASA will conduct inspections of ships for FSMC presence based on the agency's risk assessment.

AUSTRALIA

The Department of Agriculture, Fisheries and Forestry (DAFF) manages the biosecurity programme in Australia, including FSMC. DAFF maintains information relevant to FSMC requirements on its website.

At the time of writing, the latest FSMC notice was issued in December 2022. The relevant regulation is contained in the Biosecurity Act 2015 with subsequent amendments.

DAFF receives pre-arrival information through the Australian Maritime Arrivals Reporting System (MARS). Upon submission of the pre-arrival report, MARS automatically emails an FSMC questionnaire to targeted vessels. DAFF's criteria for high risk FSMC focuses on Russian far East ports.

AUSTRALIA REGULATED AREAS AND SPECIFIED RISK PERIODS

COUNTRY	PORTS/PREFECTURE	SPECIFIED RISK PERIOD
EAST RUSSIA	All ports between 40°N and 60°N latitude and west of 147°E longitude	July 1 to September 30

If the ship visited any regulated port during the specified risk period in the previous 24 months, it must also inform DAFF if it has undergone FSMC inspection and clearance by an agricultural authority in Australia, Russia, Canada, New Zealand, or the United States. Additionally, it should send a copy of the relevant clearance certificate.

The heightened FSMC surveillance period in Australian ports is typically between January 1 and May 31 each year. Upon receipt of pre-arrival information, the DAFF National Maritime Centre (NMC) will advise, through MARS, if an FSMC inspection or any specific biosecurity risk mitigation measure is required.

NEW ZEALAND

The FSMC programme in New Zealand is managed by the Ministry for Primary Industries (MPI). MPI has published the relevant information on its Hitchhiker pests website.

The requirements of the FSMC programme have been published in the Craft Risk Management Standard (CRMS) for vessels and the CRMS guidance document for vessels.

New Zealand's FSMC-regulated areas and specified risk periods have been aligned with those published by NAPPO (see the United States section above). In consequence, specified risk periods were extended to 2023 in line with NAPPO. It should be noted that at the time of writing, the CRMS and CRMS guidance document have not been updated with these changes in the FSMC. However, ships should be aware of the revised risk periods and apply them accordingly.

Ships that have visited a regulated area during the specified risk period in the past 12 months (compared to 24 months elsewhere) must carry a valid pre-departure FSMC certificate, issued by a recognised organisation from the last port of call in a regulated area. The certificate should confirm that the ship was inspected during daylight hours on the same date as the ships departure. A copy of this

certificate and the list of ports the ship called at in the last 12 months should be forwarded to MPI at least 48 hours before arrival.

Ships arriving without the required FSMC may require an inspection at a specific port determined by MPI, or potentially 4 nautical miles offshore at an agreed location in cases where the risk is deemed as very high.

THE ROLE OF CREW IN REDUCING THE RISK OF FSMC INFESTATION AND RELATED CLAIMS

SEVERAL COUNTRIES REGULATING FSMC REQUIRES SHIPS TO CARRY OUT A SELF-INSPECTION BEFORE ARRIVAL.

Regardless of the regulatory requirement, a robust self-inspection is highly recommended to prevent losses, delays, and claims if FSMC is discovered after arrival. Where deemed necessary, self-inspection may be a part of a comprehensive pest management programme for the ship.

Instructions for self-inspection published by CFIA in Canada or MPI in New Zealand provide useful guidance, specifically for FSMC. The crew should be aware of what FSMC looks like, where to look for the egg masses, and how should they be disposed of. As egg masses are typically located in sheltered spots, self-inspections should be methodical and thorough. Self-inspections should be carried out before departure from the affected port and again on route/before arrival. Some areas should be inspected with particular attention, for example, areas adjacent to floodlights, which female moths are attracted to. Any egg masses should be scraped off and destroyed by incineration or in boiling water.

Self-inspections and disposal of FSMC egg masses should be carefully recorded with a log book entry. It is also advisable to secure photographic evidence.

OTHER INDUSTRY GUIDELINES

NAPPO published the standard 'Regulating the Movement of Vessels from Areas Infested with the Asian Gypsy Moth' (RSPM 33) which has been widely used as the reference in setting out FSMC management policies. NAPPO has also been instrumental in the recent revision of the FSMC-specified risk periods.

CHARTER PARTY CLAUSES

BIMCO DEVELOPED A GENERIC FLIGHTED SPONGY MOTH COMPLEX CLAUSE FOR TIME CHARTER PARTIES WHICH PROVIDES A COMMERCIAL SOLUTION FOCUSSING ON THE BASIC OBLIGATIONS AND RESPONSIBILITIES OF THE OWNERS AND THE CHARTERERS.

Shipowners play a vital role in reducing the spread of FSMC as an invasive pest. A solid understanding of FSMC and its associated requirements by ship masters, shipowners, and operators plays a crucial role in mitigating the risk of losses and delays in regulating countries stemming from FSMC detection or non-compliance with local requirements.

Considering the potential period of up to 24 months between the call at a regulated area and the point where the FSMC policy will apply, it is highly recommended to have a robust programme of onboard compliance with regulatory requirements related to FSMC.

FOR FURTHER INFORMATION

For further information, please do not hesitate to email losprevention@tindallriley.com.

CONTRIBUTOR

The Club would like to extend our sincere appreciation to Triglav Maritime – Captain Slav Ostrowicki for contributing his technical inputs to this article.

Section 4: ISM

NO	QUESTION	GUIDANCE	REFERENCE / GUIDANCE	Verified by Master / Comments
4.1	Has the vessel's manager established a documented system for personnel to effectively implement the ISM Code? (V)	**Guide to Inspection** The latest revision of ISM manuals, procedure and instructions should be available. The inspector shall examine the compliance of the vessel with the procedures and instruction during the course of inspection The company should define and document the responsibility, authority, and interrelation of all personnel who manager, perform and verify work relating to and affecting safety and pollution prevention. The company should establish procedures, plans and instructions, including checklists as appropriate, for key shipboard operations concerning the safety of the personnel and, ship and protection of the environment. The various tasks should be defined and assigned to qualified personnel. (ISM code and guidelines on the implementation of the ISM code, 2018) The documents used to define and implement the SMS may be described as the Safety Management Manual. It may be more than one manual and may take the form that the company considers most appropriate. Policies, practices, and procedures are to be followed in order to ensure safe functioning of ships at sea.	SHEQ SMS REVISION LOG OFFICE PROCEDURES MANUAL – 4.1, 4.2 , 4.6 AND CHAPTER 5 FLEET PROCEDURES MANUAL – 4.0 - 4.6 COMPANY POLICIES POSTED ON BOARD	☐
4.2	Has a safety officer been appointed and trained, and is the safety officer familiar with the principles and practice of risk assessment? (V)	**Guide to Inspection** The safety officer is the safety adviser aboard the ship and shall provide valuable assistance to the company and to individual employers in meeting the statutory responsibilities for health and safety. Some training may be provided on board, but the safety officer should have attended a suitable safety officer's training course. The safety officer should be familiar with the principles and practice of risk assessment and should be available to advise those preparing and reviewing risk assessments. (Code of Safe Working Practices for Merchant Seafarer's 2020) The Safety Officer training course shall adhere to the STCW Code 2010 Tables A-II/2 and A-III/2 and the IMO Model Course 3.11.	CNO – SAFETY OFFICER COURSE CERTIFICATE HSE - 4.1. SAFETY ORGANISATION AND HSE COMMITTEE MEETING HSE 4.26 – RISK MANAGEMENT DUTIES OF SAFETY OFFICER – REFER TO CODE OF SAFE WORKING PARCTICE	☐

Section 4: ISM

4.3	Are the latest shipboard internal and external audits, as well as navigation audits, available, and are corrective actions being taken in response to non-conformances	**Guide to Inspection** Internal audits should be held as required by the management system, at intervals not exceeding twelve months. Reports should be available on board. The interval of internal audit may be exceeded by not more than three months in exceptional circumstances. RightShip recommends audits in addition to those required by the ISM Code should also be considered, such as navigation assessments. Master's navigation audits should be conducted using a standard questionnaire that addresses company-specific navigational requirements such as UKC, restricted visibility procedures, and calling the master, as well as random chart correction checks, passage plan adherence, log and bell book review, and compliance with bridge watch manning requirements. At least once a year, each vessel shall be subjected to a master's navigation audit to ensure compliance with the Dry Bulk Management Standard (DBMS). A Guide to Best Practice for Navigational Assessments and Audits, first edition 2018, from OCIMF provides further guidance on how to conduct a navigation assessment.	MASTER TO CONDUCT NAVIGATION AUDIT AND UPLOAD REPORT IN BASSNET NAVIATION AUDIT – NAUTICAL MANUAL – CHAPTER 10 - NAVIGATION GENERAL – SECTION 25 INTERNAL AUDIT - FLEET PROCEDURE MANUAL – CHAPTER 07.00 INTERNAL SHIP AUDIT	☐
4.4	Does the master periodically review the effectiveness of the onboard Safety Management System, report the findings to shore based management and receive feedback from them? (M)	**Guide to Inspection** Effective master reviews should be carried out at least once every 12 months and evidence of the company's response to the master's review should be available on board.	Check if form 5.1.6.1 is filed in ONEDRIVE and acknowledged by Company each year FLEET PROCEDURES MANUAL – chapter 6 - MASTERS REVIEW	☐
4.5	Is the vessel provided with an enclosed space entry procedure, and is there documented evidence that it was followed, and is there evidence that the crew assigned to responsibilities requiring entry into enclosed spaces has attended a dedicated enclosed space entry course.	HSE MANUAL – 4.10 – ENCLOSED SPACE ENTRY PROCEDURE CONTAINS ALL THESE REQUIREMENTS ALL SEAFARERS WHOSE DUTIES MAY INVOLVE ENTRY INTO ENCLOSED SPACES SHOULD ATTEND A DEDICATED COURSE FOR ENTRY INTO ENCLOSED SPACES	Complete KARCO training on enclosed space Complete OJT on enclosed space Vessel has atleast 2 gas meters which can be used both as portable and personal gas meters.	☐

			Period of validty of permit is 8 hours as per company form 3.3.1 . Prior entry , the maximum permitted time between atmosphere testing of spaces and when they are entered by personnel shall not be more than 30 minutes Repetitive gas checks to be made every 30 minutes Permit remains valid only as long as the permit conditions are met	
4.6	Is entry into and rescue from enclosed space training undertaken and are regular drills conducted? (V)	**Guide to Inspection** Enclosed space entry and rescue drills should be planned and conducted in a safe manner, considering, as appropriate, the guidance provided in the recommendations developed by the IMO as adopted by Resolution. Crew members with enclosed space entry or rescue responsibilities shall participate in an enclosed space entry and rescue drill to be held on board the ship at least once every two months. Each enclosed space entry and rescue drill shall include: > checking and use of personal protective equipment required for entry. > checking and use of communication equipment and procedures. > checking and use of instruments for measuring the atmosphere in enclosed spaces. > checking and use of rescue equipment and procedures; and > Instructions in first aid and resuscitation techniques. (Regulation 19 – Emergency training and drills /Amendments to SOLAS 74 as amended, 2013) (Revised Recommendation for Entering Enclosed Spaces Aboard Ships, 2011)	Enclosed space entry drill and enclosed space rescue drill to be conducted every 2 months as per Bassnet schedule. Refer OJT 03 - Enclosed space entry and rescue Drills Please ensure the 5 points mentioned in the OJT are covered in respective drills and are recorded in the drill sheet 3.2.3	☐

4.7	Are procedures in place for the control of hot work, are they incorporated in the safety management system and is there documented evidence of compliance? (M)	**Guide to Inspection** **Permits to hot work should be specific regarding the exact risks associated with the specific hot work, location, timing, and hazards.** **Permits to hot work should address dangers to all adjacent cargo or other flammable materials that may be exposed, as well as the necessity for additional protective covers.** Hot work means any work requiring the use of electric arc or gas welding equipment, cutting burner equipment or other forms of naked flame, as well as heating or spark generating tools, regardless of where it is carried out on board a ship. The safety management system (SMS) on board should include adequate guidance on control of hot work and should be robust enough to ensure compliance. Absence of guidance should be regarded as prohibition, rather than approval. Whenever possible, a space such as a workshop where conditions are deemed safe, should be designated for hot work to be performed and first consideration given to performing any hot work in that space. > Hot work performed outside that space should be subject to the following considerations. Hot work outside the designated space: > The Master or designated safety officer should be responsible for deciding whether hot work is justified and whether it can be conducted safely. > A permit-to-work system should be employed. > Hot work procedures should take account of national laws or regulations or other national safety and health rules. > A responsible officer, not involved in the hot work, should be designated to ensure that safe procedures are followed. > A written plan for the operation should be agreed by all who will have responsibilities in connection with the hot work. > The work area should be carefully prepared and isolated before hot work commences. > Fire safety precautions should be reviewed, including fire equipment preparations, setting a fire watch in adjacent compartments and areas, and fire-extinguishing measures. > Isolation of the work area and fire precautions should be continued until the risk of fire no longer exists. (Principles for Hot Work on Board all Types of Ships, 2003) Hot work in places other than the workshop should be the subject of a permit to work. (Code of Safe Working Practices for Merchant Seafarer's, 2020)	HSE 4.11.1 – HOT WORK HSE 4.11.2 – PERMIT TO WORK COMPANY FORM 3.3.1 Risk assessment / tool box meeting prior hot work	☐
4.8	Has a specific permit to work and effective Lock-Out/Tag-Out (LOTO) system been introduced for high-risk duties and are the permits being used effectively? (V)		Form 3.3.1 HSE 4.11.2 – PERMIT TO WORK Lock out / tag out - HSE 4.11.12	☐

		Guide to Inspection **The vessel's manager should identify the High-risk tasks on board and create a specific permit and risk assessment system for the ship**. The safety management system for individual ships will determine when permit to work systems should be used, and the form of the permit to work. (Code of Safe Working Practices for Merchant Seafarer's, 2020) Wherever there is a high-risk job taking place, a written permit to work procedure should always be used. Jobs considered to be high risk should include: > Entry into enclosed or confined spaces. > Working on machinery or equipment which can start automatically or requires isolation. > Hot work including welding. > Working aloft or overside. > General electrical work (Under 1000 Volts); > Electrical high voltage work (Over 1000 Volts); and > Working on lift machinery. Additional Permits to Work may be required depending on the trade of the ship and the work carried out. Permits can be individual or cover a number of work types. (Permits to work: a seafarer's friend, 2016) Working aloft or overside: > The ship's manager shall specify a height above a deck or tank top that is considered to be "working aloft or from height, > Define the meaning of working over or near the side. > Identify shipboard tasks that may require a seafarer to work from height or over the side and the need for the risk assessments for those tasks to identify and address the associated hazards. > Identify practical alternatives for completing routine-routine tasks without a seafarer needing to work from height or over the side; > Articulate the need for all seafarers to remain vigilant-vigilant and exercise care whenever they move about the ship.		

Plant is a general name for equipment, machinery, appliances, tools and implements. Every year, seafarers at work are injured, sometimes fatally, when plant inadvertently activates or stored energy including electricity, heat, steam, and fluids released during inspection, repair, maintenance, or cleaning. The vessel's manager shall implement an effective isolation procedure into the ship's SMS.

A procedure for working over the side to rig and recover accommodation ladders and combination pilot ladders should be incorporated into the company's SMS. The work permit and risk assessment forms should specially identify this task taking account of vessel's movement and weather conditions.

The use of a short brow gangway attached to the bottom platform of an accommodation ladder, should be identified as a high-risk task and specific permit and risk assessment for such task should be available onboard.

Lock Out/Tag Out system are used to prevent contact with a hazard while performing tasks that require the removal, by-passing, or deactivation of safeguarding devices, and the unintended release of hazardous energy (stored energy), or the unintended start-up or motion of machinery, equipment, or processes. Lock-Out/Tag-Out is a decommissioning/recommissioning work system. Decommission to make the work environment safe, and recommission to restore operational readiness.

Lock Out is the control of hazardous energy by the placement of a lock or tag on an energy-isolating device, indicating that the energy-isolating device is not to be operated until removal of the lock or tag. In practice, lockout is the isolation of energy from the system (a machine, equipment, or process) which physically locks the system in a safe mode. The energy-isolating device may be a manually operated disconnect switch, a circuit breaker, a line valve, or a block. Push buttons, selection switches and other circuit control switches are not considered energy-isolating devices.

Tag Out is a labelling process that is always used when lockout is required. The process of tagging out a system involves attaching or using a standardised label that includes the following information:

> Why the lockout or tag out is required (repair, maintenance, etc.).
> Time of Application of the lock or tag; and
> The name of the authorised person who attached the tag and lock to the system

Only the authorised individual who placed the lock and tag onto the system is the one who is permitted to remove them. This procedure helps make sure the system cannot be started up without the authorised individual's knowledge. The following standards can be referred to for safe guidelines: AS/NZS 4836:2011, AS 4024.1603-2006.

4.9	Is there a schedule of drills and exercises to address potential emergency shipboard situations and is it being conducted effectively? (V)	**Guide to Inspection** ISM requirement: "The company should identify potential emergency shipboard situations and establish procedures to respond to them. The company should establish programs for drills and exercises to prepare for emergency actions". (ISM Code and Guidelines on the Implementation of the ISM Code, 2010) Emergency procedures should at least include collision, grounding, flooding, heavy weather damage, cargo damage, shift of cargo, loss of cargo, structural failure as per MSC Circ. 1143, fire (on deck and in cargo hold, the engine room and accommodation), damage to fixed and floating objects, explosion, pollution by harmful substances in packaged form, critical machinery failure, rescue from enclosed spaces, serious personal injury, emergency towing equipment, helicopter operations and pollution clean-up and emergency operation of hatch cover. SOLAS requirement: **On-board training** in the use of the ship's fire-extinguishing systems and appliances shall be planned and conducted in accordance with the provisions of regulation SOLAS III/19.4.1. 2.2.5 **Fire drills** shall be conducted and recorded in accordance with the provisions of regulations SOLAS III/19.3 and III/19.5. **Abandon ship drill**: Each lifeboat shall be launched with its assigned operating crew aboard and manoeuvred in the water at least once every three months during an abandon ship drill. **Free fall lifeboat**: In the case of a lifeboat arranged for free-fall launching, at least once every three months during an abandon ship drill the crew shall board the lifeboat, properly secure themselves in their seats and commence launch procedures up to but not including the actual release of the lifeboat (i.e., the release hook shall not be released). The lifeboat shall then either be free-fall launched with only the required operating crew on board or lowered into the water by means of the secondary means of launching with or without the operating crew on board. In both cases the lifeboat shall thereafter be manoeuvred in the water by the operating crew. At intervals of not more than six months, the lifeboat shall either be launched by free-fall with only the operating crew on board, or simulated launching shall be carried out in accordance with the guidelines developed by the Organization. **Rescue boat drill**: As far as is reasonable and practicable, rescue boats other than lifeboats which are also rescue boats, shall be launched each month with their assigned crew aboard and manoeuvred in the water. In all cases this requirement shall be complied with at least once every three months. **On-board training in the use of davit-launched life rafts** shall take place at intervals of not more than four months on every ship fitted with such appliances. Whenever practicable this shall include the inflation and lowering of a life raft. This life raft may be a special life raft intended for training purposes only, which is not part of the ship's life-saving equipment; such a special life raft shall be conspicuously marked. **Steering gear testing and drills**: 1- Within 12 hours before departure, the ship's steering gear shall be checked and tested by the ship's crew. 2- All ships' officers concerned with the operation and/or maintenance of steering gear shall be familiar with the operation of the steering systems fitted on the ship and with the procedures for changing from one system to another.3- Emergency steering drill shall take place at least every once every three months in order to practice emergency steering procedure. (SOLAS74,2020)	Contingency plan manual Bassnet training and drills Procedures for emergency operation of hatch cover to be kept in ships office	☐
4.10	Are there procedures for reporting, investigation and close-out of non-conformities, accidents, and hazardous situations available and are they being followed? (V)	**Guide to Inspection** **Inspector shall verify the incident history of the vessel with the 24-month incident history provided by RightShip. Any incidents that are not documented in the RightShip record shall be recorded as a Finding.** The SMS should include procedures ensuring that non-conformities, accidents, and hazardous situations are reported to the company, investigated and analysed with the objective of improving safety and pollution prevention. (ISM Code and Guidelines on the Implementation of the ISM code, 2010)	Ensure all reports in bassnet are closed HSE 4.7 A , 4.7 B , 4.7 C	☐

4.11	Has a PPE Matrix for use of personal protective equipment been provided and is it being worn as required? (V)	**Guide to Inspection** **RightShip recommends that ship's crew use an inertia reel personal fall arrestor with a full body harness when working aloft or over side.** **Record a Finding if the vessel is not equipped with a safety harness and fall protection device, or if wearing such personal protective equipment is not an obligatory requirement under the SMS when operating aloft or overside.** "The company must ensure that seafarers are provided with suitable PPE where it is needed. The company should assess the equipment required to ensure that it is suitable and effective for the task in question and meets the appropriate standards of design and manufacture." All personnel who are working at height (i.e. in any position from which there is a risk of falling) shall wear a safety harness (or belt with shock absorber) attached to a lifeline. (Code of Safe Working Practices for Merchant Seafarer's, 2020) **IMSBC requirements:** Many bulk cargoes are dusty. The effects of breathing dust can never be beneficial and are probably harmful in some cases at least. Where possible it is always best to avoid exposure to cargo dust and employers and their representatives have a duty to minimise dust. When exposure to hazardous solids, liquids or gases cannot be avoided respiratory protective equipment (RPE) and safety goggles must be worn. The selection and use of the appropriate PPE is complex and extremely important. It should be part of the risk assessment process. For general shipboard use a simple respirator with a disposable filter where the wearer's lungs are used to draw air through the filter should be suitable for cargoes which are not stated to be hazardous. Filters should be renewed according to manufacturers' instructions or, in the absence of instructions, when soiled. When a chemical product and/or other specialist equipment is used during cargo hold cleaning process, full and correct PPE, suitable for the nature of the task must be available and worn at all times throughout the cargo hold cleaning. (Guidance on Preparing Cargo Holds and Loading of Solid Bulk Cargoes, 2014) The minimum PPE requirement when rigging a combination pilot ladder overside shall be incorporated into the guideline. Employees working in areas where there are potential electrical hazards shall be provided with, and shall use, electrical protective equipment that is appropriate for the specific parts of the body to be protected and for the work to be performed.29 CFR 1910.137 outlines the design, in-service care, and use regulations for electrical protection equipment, which includes rubber insulating gloves. The AS/NZS 1800:1998 standard recommends replacing helmets every three years, however the entire head harness insert must be replaced every two years to ensure the helmets remain in good working order.	Vessel to have 6 safety harness with lanyards , 3 fall arrestor (HSE 4.19) Refer company PPE matrix Ensure helmets are renewed every 3 years (HSE 4.8) Fall arrestors , safety harness to be renewed every 3 years from date put in use.	☐
4.12	Are on-board safety meetings held regularly and, are they reviewed by the vessel's manager and feedback provided where necessary? (M)	**Guide to Inspection** The Company is required to appoint a safety committee on every ship with five or more seafarers. The committee must be chaired by the Master, and members will include, as a minimum, the safety officer and any elected safety representatives. Where safety meetings do not require all off duty personnel to attend then there shall be an effective channel for the crew to report any concerns to the safety committee via the safety representatives and be kept advised of the committee's activities. Safety Committee Meetings are intended to permit discussion among the vessel's officers and ratings where these relate to safety. Safety meetings should not be used for the purposes of instruction or training. The frequency of meetings will be determined by circumstances, but the committee should meet regularly, considering the pattern of operation of the ship and the arrangement for manning and with sufficient frequency to ensure continuous improvement in safety. A meeting should also be held after any serious incident or accident on the ship, if the normal meeting is not due within a week. Safety meetings should be documented with minutes and the reports distributed and acted upon where appropriate. No safety representative may have fewer than two years' consecutive sea service since attaining the age of 18. (Code of Safe Working Practices for Merchant Seafarer's, 2020)	HSE 4.1 - SAFETY ORGANISATION AND HSE COMMITTEE MEETING FORM 5.2.1 C	☐
4.13	Is a completed IMSBC/BLU Code ship/shore safety checklist for loading and unloading dry bulk carriers available and are the requirements of		Form 2.3.3 to be completed and filed in one drive for each cargo operation IMSBC / BLU code available	☐

	the checklist complied with? (M)	**Guide to Inspection** **Incomplete ship/shore safety checklist and/or non-compliance with the checklist should be recorded as a Finding.** The purpose of the ship/shore safety checklist is to improve working relationships between ship and terminal, and thereby to improve the safety of operations. Misunderstandings occur and mistakes can be made when ships' officers do not understand the intentions of the terminal personnel, and the same applies when terminal personnel do not understand what the ship can and cannot safely do. (BLU Code, 2011)	in REGS4SHIPS	
4.14	Are Water Ingress Detector System(WIDS) and alarms maintained in good condition and are the records of tests being maintained? (V & M)	**Guide to Inspection** > Bulk carriers shall be fitted with water level detector > In each cargo hold, giving audible and visual alarms, one when the water level above the inner bottom in any hold reaches a height of 0.5m and another at a height not less than 15% of the depth of the cargo hold but not more than 2.0 m. On bulk carriers to which regulation 9.2 applies, only the latter alarm need be installed. The water level detectors shall be fitted in the aft end of the cargo holds. For cargo holds which are used for water ballast, an alarm overriding device may be installed. The visual alarms shall clearly discriminate between the two different level detectors in each hold. > In any ballast tank forward of the collision bulkhead required by regulation II-1/11, giving an audible and visual alarm when the liquid in the tank reaches a level not exceeding 10% of the tank capacity. An alarm overriding device may be installed to be activated when the tank is in use; and > In any dry or void space other than a chain cable locker, any part of which extends forward of the foremost cargo hold, giving an audible and visual alarm at a water level of 0.1 m above the deck. Such alarms need not be provided in enclosed spaces the volume of which does not exceed 0.1% of the ship's maximum displacement volume. > The audible and visual alarms specified in paragraph 1 shall be located on the navigation bridge. > The record of testing of alarm systems should be retained on board. > The electrical power supply should be from two separate sources, one should be the main source of electrical power and the other should be the emergency source, unless a continuously charged dedicated accumulator battery is fitted, having arrangement, location and endurance equivalent to that of the emergency source (18 hours). The battery supply may be an internal battery in the water level detector system. > The changeover arrangement of supply from one electrical source to another need not be integrated into the water level detector system. > Where batteries are used for the secondary power supply, failure alarms for both power supplies should be provided. (SOLAS74,2020) (Resolution MSC. 188 (79)/Performance Standard for Water Level Detectors 2004)	Record of testing shall be maintained on BASSNET Ensure no alarm on bridge panel	☐
4.15	Has a smoking policy been implemented; is it being followed and are designated smoking areas adequately identified? (V)		HSE 4.22 – FIRE PRECAUTIONS – SECTION 9 Company poster on SMOKING PROCEDURES	☐

Guide to Inspection

Environmental Tobacco Smoke (ETS) is a substantial health risk to nonsmokers. There is no degree of exposure to ETS that is considered safe. Passive smoking entails the inhalation of ETS. ETS is a complex mixture of chemicals and particles (particulate matter) that is released into the air when a person smokes a cigarette, cigar, or pipe. Nonsmokers may face a variety of adverse health consequences as a result of ETS.

(Guidance Note on the Elimination of Environmental Tobacco Smoke in the Workplace, 2003)

Employers have a responsibility to ensure the health and safety of their employees and other persons on board ship, to the extent that this is reasonably practicable.

RightShip urges the vessel's manager to implement a smoking policy with the following objectives:

> to promote the health and welfare of seafarers;
> to provide and maintain a healthy shipboard environment;
> to minimise the risks of tobacco smoke to non-smokers;
> to educate seafarers about the harmful effects of smoking; and
> to provide support and assistance to any seafarers who smoke and express a desire to quit.

Control methods that should be considered include the following:

> Restriction of smoking locations to protect non-smoking personnel from ETS and to provide specified safe smoking areas for smokers during their off-duty hours.
> Smoking should be permitted only in designated places, with visible instructions and prohibition notices.
> Any room allocated for smoking should be utilised only for that purpose. It is not suggested that smoking be permitt in the cabins.
> **Where reasonably practicable, any room that is designated for smoking should be adequately ventilated and not** ventilated into a smoke-free place.
> Smoking should be prohibited in kitchens, galleys, pantries, storerooms or other places where food is stored, handle prepared and notices to this effect should be displayed.
> Careless disposal of burning matches and cigarette ends is dangerous: ashtrays, or other suitable containers, shoul provided and used in locations where smoking is permitted.

Permanent notices should be displayed in the designated smoking areas.

Also “NO SMOKING” notices to be displayed in galley , pantry and food storing, preparing and handling areas

4.16	Are portable gas detectors suitable for atmosphere testing of enclosed spaces provided; in good condition; calibrated in accordance with the manufacturer's instructions, and are officers trained and competent with their operation? (V & M)	**Guide to Inspection** The SOLAS XI-1/7 regulation requires portable gas detectors to be dedicated 4-gas (oxygen, flammable gases, or vapours (% of LFL), carbon monoxide; and hydrogen sulphides), capable of 10 hours continuous operation, waterproof and dustproof to Ingress Protection rating IP67, and capable of remote detection (using a pump with a sample hose) suitable to test the atmosphere in an enclosed space before entry. Calibration is also a requirement, as prescribed by the manufacturers' instructions. (SOLAS74,2020) RightShip recommends vessels to carry at least two portable gas detectors with a built-in sample pump. Bump test is a "qualitative function check where a challenge gas is passed over the sensor(s) at a concentration and exposure time sufficient to activate all alarm indicators to present at least their lower alarm setting. This is typically dependent on the response time of the sensor(s) or a minimum level of response achieved, such as 80% of gas concentration applied." This verifies that sensors and alarms are functioning properly; if they are not, a blockage may be present. In conclusion, bump testing examines function, not accuracy. Calibration check is a "quantitative test utilizing a known traceable concentration of test gas to demonstrate that the sensor(s) and alarms respond to the gas within manufacturer's acceptable limits. Calibration test is a "quantitative test utilizing a known traceable concentration of test gas to demonstrate that the sensor(s) and alarms respond to the gas within manufacturer's acceptable limits". (NSI/ISEA 102-1990 (R2015)) A bump test and/or calibration check should be done on a portable gas detector before each day's use, according to the manufacturer's instructions. A calibration test shall be performed in line with the manufacturer's instructions, or when a bump test or calibration check fails. The danger with hand pumps is that operators may not pump them enough times to sample the bottom of the space. In any event, there must be clear instruction about the number of manual aspiration pumps is required, or how long the built-in pump needs to run, to clear the entire sample hose in use. Personal gas monitoring equipment is designed for personal use only, to provide a warning against oxygen deficiency, toxic gases and explosive atmospheres whilst the wearer is in the space. This equipment should not be used as a means of determining whether a dangerous (enclosed) space is safe prior to entry, unless the specific equipment has the necessary certified/approved additional capability to conduct remote readings (i.e. pumping capability) (The merchant shipping and fishing vessels (entry into enclosed spaces) regulations 2022, 2022) The instruments (including bump test station) should be provided with a manual that describes its features and alarms and explains how to calibrate, operate, and maintain it. The information in this manual should be available in the working language of the ship.	The 2 MARTEK GAS METERS CAN BE USED AS PORTABLE AS WELL AS PERSONAL GAS METERS BUMP TEST – ATLEAST EVERY 3 MONTHS CALIBRATION – EVERY YEAR . RECORDS FILED IN ONE DRIVE. SHEQ / OJT - 051 ON GAS METER REFER SHEQ/MEMO/ GAS METERS – FOR THE MANUAL	☐

4.17	Is welding and gas burning equipment in good order and properly stored? (V & M)	**Guide to Inspection** Record a finding if an annual check of the oxygen and acetylene installation onboard has not been undertaken by a competent engineer from the manufacturers and a certificate for the inspection cannot be provided. Oxy-acetylene gas equipment typically consists of oxygen and acetylene cylinders, pressure regulators, safety devices such as non-return valves and flame arrestors, and a flexible hose assembly capable of supplying a mixed gas output via a blowpipe. A pressure regulator should be selected based on the compatibility of the gas. Regulators are designed for a certain gas and must not be used with any other gas once installed in that gas service. Oxygen regulators are intended for use in oxygen service only. Acetylene and propane are both widely used as fuel gases. However, distinct gases have considerably different properties, which are taken into account while designing and manufacturing gas regulators. Due to the unique characteristics of each gas, each requires a unique design of gas regulator that is compatible with and type-tested for use with that gas. The pressure regulator shall be replaced every five years or as indicated by the manufacturer. Hose tail refers to the end of a coupling device (such as a nipple/nozzle) that is intended to be placed into a hose. The hose shall be crimped to the hose tail using an appropriate crimping instrument that provides reproducible crimping performance. To secure the hose to the hose tail, no worm screw drive or similar detachable clips or clamps shall be utilized. Hoses shall be constructed from a material compatible with the gas being used. Hoses shall not be utilized for gases or at pressures greater than those for which they were intended. > Hose assemblies shall be permanently labelled with the following information:The manufacturer's name or trademark; and > A reference to a a recognized international standard, for example EN 1256. This information shall be marked on the mounting device for the hose or on a separate band attached to the hose adjacent to the coupling or on the mounting device. When a hose's general condition deteriorates, it must be discarded. Hoses used with welding equipment are color-coded. Hoses for oxygen should be blue, whereas hoses for acetylene should be red. Blowpipes have been referred to as torches, lamps, blowtorches, guns, shanks, burners, and handles. Every five years from the date of manufacture, or as recommended by the manufacturer, the flame arrestor shall be renewed. Blowpipes shall be maintained in accordance with the manufacturer's / supplier's recommendations. Prior to each blowpipe inlet connection, a non-return valve (hose check valve) shall be inserted into the assembled hose. The non-return valve should be replaced according to the manufacturer's recommendations. Copper pipe or fittings shall not be used to connect acetylene hoses. The pipeline and fittings for oxygen distribution must be made of seamless steel or copper. The hard pipe for oxygen and acetylene must be color coded, with blue piping for oxygen and red piping for acetylene. (BS EN 1256:2006 Gas welding equipment. Specification for hose assemblies for equipment for welding, cutting and allied processes, 2006) (Code of Practice 7 The Safe Use of Oxy-Fuel Gas Equipment (individual Portable or Mobile Cylinder Supply), 2018) (BS EN 1256:2006 Gas welding equipment. Specification for hose assemblies for equipment for welding, cutting and allied processes, 2006) Regular inspection, thorough examination, and testing of all components to ensure that all the oxy/ acetylene equipment in use on board is in a safe operational condition. This should be undertaken at least annually by a competent engineer from the manufacturer of the equipment and should also include pressure testing of on-board piping systems. An appropriate certificate should be issued. (UK P&I club, Technical Bulletin-Oxy/Acetylene equipment, 2008)	Ensure pressure regulator and flame arrestor is replaced every 5 years. Carry maintenance as per bassnet The hard pipe for oxygen and acetylene must be color coded, with blue piping for oxygen and red piping for acetylene. The hose shall be crimped to the hose tail using an appropriate crimping instrument that provides reproducible crimping performance. To secure the hose to the hose tail, no worm screw drive or similar detachable clips or clamps shall be utilized.	☐

4.18	Are the lifeboats, rescue boat and davit-launched life raft their equipment and launching arrangements being serviced periodically in good condition, and are the crew familiar with the launching procedure and operation? (V & M)	**Guide to Inspection** **When the vessel is equipped with a davit-launched life raft, the Inspector shall quiz the familiarity of crew with operation of the davit and test operation the davit. The wire pennants are occasionally sheathed in plastic by the wire manufacturer. The sheathing allows saltwater ingress, which aids corrosion by retaining moisture, and prevents external inspection and application of lubricant or other corrosion-inhibiting substances. Record a Finding If any wire pendants with sheathed plastic were used to secure the lifeboats, rescue boat, or life raft.** Each survival craft shall be stowed in a state of continuous readiness so that two crew members can carry out preparations for embarkation and launching in less than five minutes. (SOLAS74,2020) Falls used in launching shall be inspected periodically with special regard for areas passing through sheaves and renewed when necessary due to deterioration of the falls or at intervals of not more than five years – whichever is the earlier. (Measures to Prevent Accidents with Lifeboats, 2006) Each free-fall lifeboat shall be fitted with a release system which shall be designed to test the release system without launching the lifeboat. Each lifeboat shall be clearly marked with the number of persons for which the lifeboat is approved and the name and port of registry. Means of identifying the ship to which the lifeboat belongs, and the number of the lifeboat shall be marked in such a way that they are visible from above. (Life-saving appliances including LSA Code, 2017) The release system of lifeboats, rescue boats, free-fall lifeboat including davit-launched life rafts shall be: > Maintained in accordance with instructions for on-board maintenance as required by regulation 36. > Subjected to a thorough examination and operational test during the annual surveys required by regulations I/7 and I/8 by properly trained personnel familiar with the system; and > Operationally tested under a load of 1.1 times the total mass of the lifeboat when loaded with its full complement of person and equipment whenever the release gear is overhauled. Such over-hauling and testing shall be carried out at least once every five years. (SOLAS74,2020)	Remove all plastic sheathings from wire ropes Ensure all crew are familiar with operation of rescue boat davit using 3 means (Normal , accumulator , emergency /manual pump) Try the rescue boat davit for full degree of operation using accumulator Ensure falls are renewed within 5 years Check markings on lifeboat Check if wire rope grips are properly used Ensure operating instructions are displayed beneath emergency light	☐

Davit-launched life raft automatic release hooks shall be:

- Maintained in accordance with instructions for on-board maintenance as required by regulation 36.
- Subjected to a thorough examination and operational test during the annual surveys required by regulations I/7 and I/8 by properly trained personnel familiar with the system; and
- Operationally tested under a load of 1.1 times the total mass of the lifeboat when loaded with its full complement of person and equipment whenever the release gear is overhauled. Such over-hauling and test shall be carried out at least once every five years.

Note: Of particular importance in the checking of lifeboats is the on-load release system fitted to enclosed lifeboats and the maintenance routines for them. A high percentage of accidents at sea are attributed to lifeboats and their release systems.

(Measure to Prevent Accident with Lifeboats, 2006)

SOLAS Regulation III/1.5 requires all ships subject to SOLAS, regardless of build date, to identify existing on-load release mechanisms that do not comply with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the International Life-Saving Appliance (LSA) Code, as amended by IMO Resolution MSC.320 (89); and replace them with compliant release mechanisms no later than the next scheduled dry-docking after July 1, 2014 (but in any case, before July 1, 2019). SOLAS Regulation III/1.5 does not apply to the release mechanisms on free-fall lifeboats.

(IMO Circular MSC.1/Circ.1392, Guidelines for Evaluation and Replacement of Lifeboat Release and Retrieval Systems)

Wire rope grips can be one of the most dangerous fitting if not used correctly. At least three wire rope grips should be used, with the saddles on the live part of the rope, and the U-bolt pressing on the less heavily loaded tail of the rope. They should be spaced at least six wire diameters apart.

The operating instructions for the lifeboat and life raft shall be displayed.
On or near survival craft and their launching controls, posters or signs shall:

1. Clearly indicate the purpose of the controls and the procedures for operating the appliance, as well as any pertinent instructions or warnings.
2. Be easily visible under emergency lighting conditions; and
3. Use symbols consistent with resolution A.760, as amended by MSC.82.

(SOLAS74,2020)

4.19	Are life rafts in good order and are hydrostatic release units maintained and installed correctly? (V & M)	**Guide to Inspection** Cargo ships shall carry one or more inflatable or rigid liferafts, stowed in a position providing for easy side-to-side transfer at a single open deck level and of such aggregate capacity as will accommodate the total number of persons on board. If not stowed in a position providing for easy side-to-side transfer at a single open deck level, the total capacity available on each side shall be sufficient to accommodate the total number of persons on board. If a free-fall lifeboat is fitted, cargo ships shall have one or more inflatable or rigid liferafts, on each side of the ship, of such aggregate capacity as will accommodate the total number of persons on board. The liferafts on at least one side of the ship shall be served by launching appliances. (SOLAS74,2020) For davit launched liferafts, the launching appliance shall include an automatic release hook arranged so as to prevent premature release during lowering and shall release the liferaft when waterborne. The release hook shall include a capability to release the hook under load. The on-load release control shall: > Be clearly differentiated from the control which activates the automatic release function; > Require at least two separate actions to operate; > Be designed such that crew members on deck can clearly observe when the release mechanism is properly and completely set. (Life-saving appliances including LSA Code, 2017) Every liferaft shall be stowed with its painter permanently attached to the ship. Each liferaft or group of liferafts shall be stowed with a float-free arrangement so that each floats free and if inflatable, inflates automatically when the ship sinks. Liferafts shall be so stowed as to permit manual release of one raft or container at a time from their securing arrangements. (SOLAS74,2020) Some hydrostatic release manufacturers recommend that each liferaft is fitted with its own individual hydrostatic release unit (HRU), to prevent the possibility, where more than one liferaft is utilising the same release, of one of the liferafts breaking the weak link before the second or subsequent liferafts have inflated. When multiple liferafts are connected to a single HRU, each raft must be equipped with its own weak link. A HRU is not required for liferafts stored in the forward part of a vessel.		Ensure painter is permanently attached to ship Check if HRU is properly connected Check expiry date of HRU Ensure annual inspection is carried out Vessel shall have Survitec inspection kit onboard	☐
4.20	Are life jackets in good condition, allocated as per the plan and donning instructions clearly displayed? (V & M)	**Guide to Inspection** The vessel must carry: (a) a lifejacket for each person that the vessel is certified to carry, including a suitable lifejacket for each person aboard the vessel who weighs less than 32 kg; and (b) a sufficient number of lifejackets stowed in working spaces for the use of seafarers who may be required to remain on duty in those spaces. (2) A lifejacket for an adult must: (a) be designed to fit a person weighing up to 140 kg and with a chest measurement of at least 1 750 mm; or (b) have available suitable accessories to enable its use by that person. Lifejackets selected for free-fall lifeboats and the manner in which they are carried or worn, shall not interfere with entry into the lifeboat, occupant safety or operation of the lifeboat. (SOLAS 74, 2020) For ships having keel laying on or after 01 July 2010, the method of securing the lifejacket to the wearer has quick and positive means of closure that do not require tying of knots.		Ensure number and location of lifejackets are as per LSA plan Ensure vessel has 3 oversized lifejackets (HSE 4.19) Also request all crew on board to wear the lifejackets kept in their cabins and revert if the size is okay. If the size does not match (too	☐

			big , too small etc) , please inform the ship manager Donning instructions to be posted Ensure lights and whistle are operational Ensure method of securing lifejacket to wearer has quick and positive means of closure that does not require tying of knots	

4.21	Are immersion suits in good condition, allocated as per the fire and safety plan and donning instructions clearly displayed? (V & M)	**Guide to Inspection** The Guidelines for monthly shipboard inspection of immersion suits and anti-exposure suits (MSC/Circ.1047) are very helpful in identifying obvious problems with a suit, but do not adequately address deterioration of seams and closures (zippers, etc.) which may not be readily apparent by visual inspection. Such deterioration can be detected by pressurisation of the suit with air and testing the seams and closures for leaks with a soapy water solution. To ensure the maintenance of adequate strength and watertightness of seams and closures of immersion suits and anti-exposure suits with age, it is recommended that each suit be subjected to an air pressure test such as the following, at intervals not exceeding three years, or more frequently for suits over ten years of age: > A suitable head piece, fitted with a means to inject air into the suit, should be inserted into the face orifice of the suit and secured so as to minimize leakage around the face seal. A low-pressure monitoring device, either integral to the fitting for air injection or as a separate device, should also be inserted. If the suit is fitted with detachable gloves and/or boots, the wrists and/or cuffs should be sealed by inserting a short length of suitable diameter plastic pipe and securing the gloves and/or boots with suitable wire ties or hose clamps. The zipper should be fully zipped, and any face flap closed. The suit should then be inflated to a pressure of 0.7 to 1.4 kPa (0.1 to 0.2 psi). If an auxiliary inflatable means of buoyancy is provided, it should be inflated through the oral valve to a pressure of 0.7 kPa (0.1 psi) or until firm to the touch. > Each seam and closure of the suit and each seam, oral tube and attachment points and joint or valve of any auxiliary inflatable means of buoyancy should then be covered with a soapy water solution containing enough soap to produce bubbles (if leakage is noted at a foot valve to the extent that air pressure cannot be maintained, the valves should be sealed for the test). > If leaks are revealed by the propagation of bubbles at seams or closures, the leaking areas should be marked and, after cleaning the suit thoroughly with fresh water and drying it, repaired in accordance with the suit manufacturer's recommendations. (MSC/Circ.1114 –Guidelines for Periodic Testing of Immersion Suit and Anti-Exposure Suit Seams and Closures, 2004)	Ensure immersion suits number and location are as per LSA plan Ensure vessel has 1 oversized immersion suit (HSE 4.19) Also request all crew on board to wear the immersion suit kept in their cabins and revert if the size is okay. If the size does not match (too big , too small etc) , please inform the ship manager and raise requisition Donning instructions to be posted Ensure maintenance of immersion suit is done and filed in CORNES LSA REGISTER./ BASSNET	☐ Please inform 3NO and ensure maintenance is included in CORNES LSA register. (Last section) Vessel shall have IMMERSION SUIT TEST KIT onboard While conducting 3 yearly test please take photographs of testing as evidence
4.22	Are IMO symbols to identify the location of life saving equipment, firefighting equipment and hazardous areas displayed appropriately and in good condition? (V)	**Guide to Inspection** SOLAS, Chapter III, Regulation 20.10 requires signs to identify the locations of life saving equipment in accordance with recommendations of IMO. Reference should be made to the symbols related to Life Saving Appliances and arrangements adopted by IMO by resolution A.760 (18), MSC82 (70) and A.952 (23). (SOLAS 74, 2020)	OJT10 – SAFETY SIGNS AND POSTERS BASSNET – ROUTINE MONTHLY CHECKS – IMO SYMBOL	☐

4.23	Has a sample of foam compound, applicable to both fixed and portable systems, been sent for regular testing and is evidence of satisfactory results available? (M)		**Protein based foam concentrate:** Thoroughly check Protein based foam concentrate portable containers and portable tanks and, if more than **five years** old, the foam concentrate should be renewed; .4 **Non Protein based foam concentrate**: Portable containers or portable tanks containing foam concentrate, that remain factory sealed shall be renewed **after 10 years**	☐
4.24	Are fire mains and associated isolation valves, fire boxes, hoses, nozzles, applicators, and spanners regularly inspected and maintained and found to be in a satisfactory operating condition		PMS to be updated in bassnet FIRE LINE , HYDRANTS, HOSES A	☐
4.25	Are the International Shore Connection fitting arrangements clearly marked and well maintained and are the crew aware of their location? (V)	**Guide to Inspection** There should be at least one shore connection for ship greater than 500GRT. The international shore connection is a standard sized flange with nuts, bolts and washers and a coupling for ship's fittings. The fitting and joining must be suitable for a working pressure of 10.5 bar. Four bolts are required of 16mm diameter and 50mm length, also eight washers and a gasket of any suitable material. (SOLAS 74, 2020)	Refer FFA code for details of international shore connection Ensure number of international shore connection is as per fire plan. Update PMS in bassnet Ensure location	☐

<table>
<tr><td></td><td></td><td></td><td>is as per fire plan and IMO symbol posted

INTERNATIONAL SHORE CONNECTION</td><td></td></tr>
<tr><td>4.26</td><td>Are records available to show that fixed fire detection and fire alarm systems have been tested at regular intervals and maintained in good condition? (V)</td><td>Guide to Inspection
If a fire detection and alarm system is found to be malfunctioning, the machinery space shall not be operated in UMS mode until the system is repaired.

Periodically, fixed fire detectors and fire alarm systems shall be tested in accordance with MSC.1/Circ.1432 using equipment suited to the types of fires to which the detector is designed to respond.
If indicated by the manufacturer, the test protocol and specialised test equipment should be followed and used.
Spaces not covered by a fire detection system shall be covered by regular fire patrols.</td><td>REFER PMS IN BASSNET</td><td>☐</td></tr>
<tr><td>4.27</td><td>Are the fixed fire extinguishing systems (where fitted) inspected, tested and in good order? (V & M)</td><td>Guide to Inspection
Fixed hold fire extinguishing systems, such as CO_2 lines, should be blown through with compressed air and checked to ensure they are free of dust and debris.

Paint lockers shall be protected by:
> A carbon dioxide system, designed to give a minimum volume of free gas equal to 40 % of the gross volume of the protected space; or
> A dry-powder system, designed for at least 0.5 kg powder/m³; or
> A water-spraying or sprinkler system, designed for 5 l/m² min. Water spraying systems may be connected to the fire main of the ship: or
> A system providing equivalent protection, as determined by the Administration.

In any case, the system shall be operable from outside the protected space.
Flammable liquid lockers shall be protected by an appropriate fire-extinguishing arrangement approved by the Administration.

For lockers of a deck area of less than 4 m², which do not give access to accommodation spaces, a carbon dioxide portable fire extinguisher sized to provide a minimum volume of free gas equal to 40 % of the gross volume of the space may be accepted in lieu of a fixed system. A discharge port shall be arranged in the locker to allow the discharge of the extinguisher without having to enter into the protected space. The required portable fire extinguisher shall be stowed adjacent to the port. Alternatively, a port or hose connection may be provided to facilitate the use of fire main water.
(SOLAS 74, 2020)
The foam pump shall be maintained as per manufacturer recommendation and the inspector shall witness the free movement of the foam pump when possible.</td><td>REFER PMS IN BASSNET

Ensure Fixed hold fire extinguishing systems, such as CO2 lines, are blown through with compressed air and checked to ensure they are free of dust and debris.

Ensure paint sprinkler system is tested as per PMS</td><td>☐</td></tr>
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4.28	Is the emergency fire pump being regularly tested, in good operational condition and are starting instructions clearly posted? (V)	**Guide to Inspection** When agreeable by the Chief Engineer and safe to do so, the inspector shall witness the starting and operation of the emergency fire pump and check the following: > Fire pumps should operate satisfactorily and be able to maintain proper pressure > Pressure gauges should be in good order > The operating condition of the priming system and/or non-return valve should be in good order > The operating condition of the isolating valves and cocks should be in good order > Witness delivered flow from hose with nozzle. All fire pumps, including emergency fire pumps, must be flow tested once a year to ensure proper pressure and capacity (reference: MSC.1/Circ.1432). When possible and with the Master's agreement, the inspector shall witness the test of the emergency fire pump's capacity and pressure by deploying a fire hose on the bridge wing and another on the forecastle and observing the water flow.	REFER PMS IN BASSNET Ensure pressure gauges are in good order Ensure priming system is in good order Ensure isolating valves and cocks are in good order	☐
4.29	Are portable fire extinguishers being maintained in good order, and ready for immediate use in an emergency? (V)	**Guide to Inspection** Although there is no clear requirement concerning the validity date of powder in the FSS Code, it is generally considered necessary to refill the powder every 5 or 6 years, in principle. It is highly recommended that spare charges should also be replaced at the same time considering age deterioration, even though the expiration date of the charges is not specified by the manufacturer. In light of the above situation, crew shall consider replacing the spare charges of powder fire extinguishers at the same intervals as the refilling intervals specified by the manufacturer (Class NK Bulletin 20, 2020). **Periodic inspections and maintenance of portable fire extinguisher:** Extinguishers should be subject to periodical inspections in accordance with the manufacturer's instructions and serviced at intervals not exceeding one year. > At least one extinguisher of each type manufactured in the same year and kept on board a ship should be test discharged at five yearly intervals (as part of a fire drill). > All extinguishers together with propellant cartridges should be hydraulically tested in accordance with the recognized standard or the manufacturer's instruction at intervals not exceeding ten years. > Service and inspection should only be undertaken by, or under the supervision of, a person with demonstrable competence, based on the inspection guide in table 9.1.3 in Resolution A.951 (23). > Records of inspections should be maintained. The records should show the date of inspection, the type of maintenance carried out and whether a pressure test was performed. > Extinguishers should be provided with a visual indication of discharge. > Instructions for recharging extinguishers should be supplied by the manufacturer and be available for use on board. (Resolution A.951 (23)/Improved Guidelines for Marine Portable Fire Extinguishers, 2004) Spare charges shall be provided for 100% of the first ten extinguishers and 50% of the remaining fire extinguishers capable of being recharged on board. Not more than sixty total spare charges are required. For fire extinguishers which cannot be recharged on board additional portable fire extinguishers of the same quantity, type, capacity, and number as determined in paragraph above shall be provided in lieu of spare charges. (SOLAS 74, 2020)	Spare charges shall be provided for 100% of the first ten extinguishers and 50% of the remaining fire extinguishers capable of being recharged on board. Refer PMS in bassnet	☐

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<td>4.30</td>
<td>Are firemen’s outfits including their equipment, two-way portable radiotelephone apparatus for fire-fighter’s communication and breathing apparatus in good condition, fit for purpose and available for instant use? (V & M)</td>
<td>
Guide to Inspection
Each firefighting team shall be equipped with portable two-way radiotelephones for the purposes of communication. The efficient use of these radios shall not be inhibited by the use of any firefighting equipment, including the firefighter's outfit. To be fit for purpose a firefighter wearing a fireman's outfit and Breathing Apparatus must be able to communicate clearly and without restriction with the Command and Control team.

When possible, the inspector should evaluate the effectiveness of the two-way radio communication equipment provided. Record a Finding if there are insufficient intrinsically safe two-way portable radios for the number of fire teams on the muster list, or if wearing a fireman's outfit and Breathing Apparatus hinders the firefighter's ability to operate the radios while fighting a fire.

One complete fireman's outfit should include following items:
> SCBA (self-contained breathing apparatus)
> Fireman's suit
> Fireman's helmet
> Fireman's rubber boots
> Explosion proof light

Fireproof lifeline combination rope of wire and nylon or hemp rope, complete with safety snap hook. Available in 30, 40 and 50 metre lengths.
> Fire axe
> Fireman safety belt

"Compressed air breathing apparatus shall be fitted with an audible alarm and a visual or other device which will alert the user before the volume of the air in the cylinder has been reduced to no less than 200 litres." This applies to ship's constructed (keel laid) on or after 1 July 2014. Ships constructed (keel laid) before 1 July 2014 must comply no later than 1 July 2019.

"An on-board means of recharging breathing apparatus cylinders used during drills shall be provided or a suitable number of spare cylinders shall be carried on board to replace those used." This applies to all ships on or after 1 July 2014.

"For ships constructed on or after 1 July 2014, a minimum of two two-way portable radiotelephone apparatus for each fire party for fire-fighter's communication shall be carried on board. These two-way portable radiotelephone apparatuses shall be of an explosion-proof type or intrinsically safe. Ships constructed before 1 July 2014 shall comply with the requirements of this paragraph not later than the first safety equipment survey after 1 July 2018."
(SOLAS 74, 2020)
</td>
<td>Ensure 4 fire fighting walkie talkies are on board

These walkie talkies shall be sealed and not be used for any other purpose.

Refer PMS in bassnet for fireman outfit

Ensure SCBA compressor is operational and there is an adaptor to charge SCBA bottle as well as EEBD bottle.

Ensure explosion proof torch is operational and there are spare batteries onboard.</td>
<td>☐</td>
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<tr>
<td>4.31</td>
<td>Is the operation and maintenance of the breathing apparatus air recharging system (where fitted) incorporated in the ship’s safety management</td>
<td>
Guide to Inspection
Annual testing should be carried out to ensure the air quality of breathing apparatus air recharging systems.
(MSC/Ciro.1432, Revised Guidelines for the Maintenance and Inspection of Fire-Protection Systems and Appliances, 2012)
</td>
<td>Vessel shall have maker manual on board for SCBA sets and compressor.

Check if PMS for SCBA</td>
<td>☐</td>
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	manual, and has the annual air quality check for breathing apparatus air recharging systems been carried out? (V & M)		compressor is included in bassnet Check date of last annual testing of air quality of compressor Update SCBA maintenance in bassnet	
4.32	Are records available to show that Emergency Escape Breathing Devices (EEBDs) in the accommodation and engine room are being inspected, in good condition and are available for instant use? (V & M)	**Guide to Inspection** The minimum number of EEBDs to be kept within accommodation spaces should be: For cargo ships: two (2) EEBDs and one (1) spare EEBD. In machinery spaces for category A containing internal combustion machinery used for main propulsion, EEBDs should be positioned as follows: 1. One (1) EEBD in the engine control room, if located within the machinery space. 2. One (1) EEBD in workshop areas. If there is, however, a direct access to an escape way from the workshop, an EEBD is not required; and 3. one (1) EEBD on each deck or platform level near the escape ladder constituting the second means of escape from the machinery space (the other means being an enclosed escape trunk or watertight door at the lower level of the space). Alternatively, different number or location may be determined by the Administration taking into consideration the layout and dimensions or the normal manning of the space. For machinery spaces of category A other than those containing internal combustion machinery used for main propulsion, one (1) EEBD should, as a minimum, be provided on each deck or platform level near the escape ladder constituting the second means of escape from the space (the other means being an enclosed escape trunk or watertight door at the lower level of the space). For other machinery spaces, the number and location of EEBDs are to be determined by the Administration. (MSC/Circ.1081, Unified Interpretations of SOLAS Regulations II-2/13.3.4 and II-1/13.4.3, 2003) The EEBD should be maintained in accordance with the manufacturer's instructions. Spare EEBDs should be kept on board. Maintenance requirements, manufacturer's trademark and serial number, shelf life with accompanying manufacture date and name of approving authority should be printed on each EEBD. Training in the use of the EEBD should be considered as a part of basic safety training. All EEBD training units should be clearly marked. Personnel should be trained to immediately don an EEBD prior to exiting a space when the atmosphere becomes life threatening. This is necessary due to the possibility of encountering smoke during escape. Such training should be accomplished by scheduling routine escape drills for crew members working in the engineering or machinery spaces. (MSC/Circ.849, Guidelines for The Performance, Location, Use and Care of Emergency Escape Breathing Devices (EEBDs), 1998)	Number and location of EEBD shall be as per LSA plan Refer BASSNET FOR MAINTENANCE. Spare/ training EEBD shall be on board Carry training n use of EEBD AS PER BASSNET SCHEDULE – TRAINING – BASIC FIRE FIGHTING	☐

4.33	Are ventilation fire dampers clearly marked with open/close positions and space served and is there evidence of regular testing and maintenance? (V)	Refer BASSNET FOR MAINTENANCE. Monthly test : Ventilation system and damper by 2EO		☐
4.34	Are Material Safety Data Sheets (MSDS) for all bunkers, chemicals, paint, corrosive, and toxic materials available, and are all crew familiar with their contents? (V)	**Guide to Inspection** It is essential before use of any hazardous substance that the manufacturer's safety data sheet (SDS) is referred to, to select appropriate personal protective equipment (PPE) and working methods. (Code of Safe Working Practices for Merchant Seafarer's, 2020) All stores on board where hazardous or toxic substances are kept, such as paint and chemical stores, shall have readily accessible MSDS. FW_ INTERNAL AUDIT _ MSDS.msg	HSE manual 4.11.8- Handling hazardous substances PPE like apron , goggles /face shield , eyewash , chemical handling gloves to be kept where paint / chemicals are stored Please refer to attached sample photos and prepare ship specific MSDS files for the following: •engine room chemicals , •lubricants , •hold cleaning chemicals , •paints, thinners •SOPEP locker OSD etc Prepare table of contents and use dividers for separating each MSDS. MSDS to be kept at each location where paints , chemicals etc are stored. In case you require any MSDS information	☐ FW_ INTERNAL AUDIT _ MSDS.msg

			regarding paint , chemical etc , please liaise with ship manager and obtain the same. Ensure proper housekeeping where paints , chemicals etc are stored	
4.35	Is a safe means of access to the vessel being provided? (V)	**Guide to Inspection** **Inspector shall check if the bottom step securing pins of the accommodation ladder are in place and in good condition. Record a Finding if the means of access was not landed on solid surfaces ashore.** The type of vessel access should be selected based on the experience and physical abilities of the people boarding the vessel as per ISO 5488:2015 and MSC.1/Circ. 1331. Their capability must be assessed prior to them embarking or disembarking, particularly when using a combination pilot and accommodation ladder. When a vessel is alongside at a berth, the provision of safe access is a shared responsibility between the vessel and the provider of the berth. Often, it is poor wharf design that prevents landing a gangway, and this has a significant impact on safe access arrangements. The Master and any provider of the means of access are both responsible for ensuring that a safe means of access is used. SOLAS Chapter II-1 Regulation 3 9 and MSC. 1/ Circ.1331 include requirements for safely rigging vessel access equipment. > Gangways should not be used at an angle of inclination greater than 30 degrees from the horizontal. > Ship accommodation ladders should not be used at angles greater than 55 degrees from the horizontal, unless designed and constructed for use at angles greater than these and marked as such. > Adequate lighting, lifebuoys and a mounted safety net sufficient to prevent falls must be provided. Arrangements at some berths prevent accommodation ladders being safely landed on the wharf edge. In such situations it is common practice to suspend the ship's accommodation ladder at the vessel's side with a short brow or gangway fitted to the lower accommodation ladder platform to bridge the gap between the vessel and wharf edge. Such arrangements should be considered only after a detailed hazard identification and risk analysis in accordance with BS ISO 31100:2021 or an equivalent standard has been completed and the results have been determined to be within acceptable limits. Accommodation ladders and gangways are designed and tested to be landed on solid surfaces. To do otherwise is impacting on the engineering design of the shipboard access arrangement. If the means of access is provided with a permanent system of handrails made of structural members, safety nets are not required. **The RightShip best practice & lessons learned for Safe Means of Access must be taken in to account when rigging a safe means of access. Please** click here	HSE 4.17 – Safe access Check if bottom step securing pins are in place and in good condition.	☐
4.36	Are accommodation ladders and gangways		The date of fall wire renewal should be stencilled in	☐

	maintained in good condition, marked clearly, and inspected regularly (V)	**Guide to Inspection** **Record a Finding If the maintenance and inspection of the accommodation ladder turn table and its pin were not included in the PMS** Accommodation ladders and gangways, including associate winches and fittings, should be properly maintained, and inspected at appropriate intervals as required by SOLAS regulation III/20.7.2, in accordance with manufacturers' instructions. Additional checks should be made each time an accommodation ladder or gangway is rigged, looking out for signs of distortion, cracks, and corrosion. Close examination for possible corrosion should be carried out, especially when an aluminium accommodation ladder/gangway has fittings made of mild steel. Bent stanchions should be replaced or repaired and guard ropes should be inspected for wear and renewed where necessary. Moving parts should be free to turn and should be greased as appropriate. The lifting equipment should be inspected, tested, and maintained paying careful attention to the condition of the hoist wire. The wires used to support the means of embarkation and disembarkation should be renewed when necessary, as required by SOLAS regulation II-1/3-9. Arrangements should also be made to examine the underside of gangways and accommodation ladders at regular intervals. All inspections, maintenance work and repairs of accommodation ladders and gangways should be recorded to provide an accurate history for each appliance. The information to be recorded appropriately on board should include the date of the most recent inspection, the name of the person or body who carried out that inspection, the due date for the next inspection and the dates of renewal of wires used to support the embarkation and disembarkation arrangement. **Winch:** During annual surveys required by SOLAS regulations I/7 and I/8, the following items should be examined for satisfactory condition: > Brake mechanism including condition of brake pads and band brake, if fitted. > Remote control system; and > Power supply system (motor). At every five-yearly survey, the winch should be operationally tested with the specified maximum operational load of the accommodation ladder. **Marking:** Each accommodation ladder or gangway should be clearly marked at each end with a plate showing the restrictions on the safe operation and loading, including the maximum and minimum permitted design angles of inclination, design load, maximum load on bottom end plate, etc. Where the maximum operational load is less than the design load, it should also be shown on the marking plate. (MSC.1/Circ.1331, Guidelines for Construction, Installation, Maintenance and Inspection/Survey of Means of Embarkation and Disembarkation, 2009) The certificate (s) for a five-year load test of an accommodation ladder should be kept on board, and the load test should be performed within the stipulated time period. A manufacturer's certificate for a fall wire in service should be provided, as well as confirmation that accommodation ladder fall wires have been replaced within the last five years. The date of fall wire renewal should be stencilled in the vicinity of the fall wire winch. All wires used to support the means of embarkation and disembarkation shall be maintained and inspected with special regard to the areas passing through sheaves. The falls should be 'renewed when necessary due to the deterioration of the falls or at intervals of not more than five years, whichever is the earlier as per SOLAS III/20.4, SOLAS II-1/3- and MSC.1/ Circ.1206.	the vicinity of the fall wire winch. Bassnet contains all maintenance requirements. Maintenance done to be updated in bassnet Check for Name plate and legible markings Certificate for wires to be on board Wires to be renewed every 2.5 years	

4.37	Are pilot ladders used for pilot transfer in good condition, and inspected regularly, clearly identified with tags or with permanent marking and are maintenance records available and, are crew members capable of demonstrating proper rigging of the pilot-ladder arrangement?(V)	**Guide to Inspection** Expected service life of the pilot ladder, which may be less than 30 months, especially on ladders with mechanically placed metal clamps that prevent inspection of the side ropes. If a pilot ladder's service life exceeds 30 months, the test specified in section 6.6 of ISO standard 799-2021 should be conducted. (BS ISO 799-2:2021 Ships and marine technology. Pilot ladders. Maintenance, use, survey, and inspection, 2021) All pilot ladders used for pilot transfer shall be clearly identified with tags or other permanent marking so as to enable identification of each appliance for the purposes of survey, inspection and record keeping. A record shall be kept on the ship as to the date the identified ladder is placed into service and any repairs effected. (SOLAS 74, 2020) The top of the pilot ladder should be secured to the certified fixing point and not to handrails. Ladder steps or spacers should not be rigged in a position in which they are taking the weight of the ladder. (Code of Safe Working Practices for Merchant Seafarer's, 2020) The easiest way to secure the ladder is the use of two strong (at least 2 x 24 kN) manila ropes directly attached to each side rope of the pilot ladder, by means of a rolling hitch knot. Any pilot ladders not in use should be clearly identified and tagged. The requirements in SOLAS V/23, deal with the standards for equipment installed and arrangements for pilot transfers on ships on or after 1 July 2012. The standards adopted by the IMO can be found in IMO Resolution A.1045(27) "Pilot transfer arrangements". SOLAS V/23.2.3 additionally states that a pilot ladder shall be certified by the manufacturer as complying with V/23 or "with an international standard acceptable to the Organization" and ref and refers to ISO 799:2004 Ships and marine technology.	Renew pilot ladder if more than 30 months Carry out maintenance as per bassnet All pilot ladders shall be clearly identified with permanent marking which shall match with the certificate number. The top of the pilot ladder should be secured to the certified fixing point and not to handrails. Ladder steps or spacers should not be rigged in a position in which they are taking the weight of the ladder. The easiest way to secure the ladder is the use of two strong (at least 2 x 24 kN) manila ropes directly attached to each side rope of the pilot ladder, by means of a rolling hitch knot. Dispose condemned pilot ladders	☐ Pilot ladder .docx

4.38	Has the vessel been provided with ship-specific fire safety and SOLAS training manuals and operational booklets? (V)	**Guide to Inspection** Fire Safety training manual: A training manual shall be written in the working language of the ship and shall be provided in each crew mess room and recreation room or in each crew cabin. The manual shall contain the instructions and information required in regulation II-2/15.2.3.4. Part of such information may be provided in the form of audio-visual aids in lieu of the manual. (SOLAS 74, 2020) SOLAS training manual: Specific training manuals shall be provided in each crew mess room and recreation room, or in each cabin and shall contain instructions and information on the life-saving appliances provided in the ship. It shall also contain information on the best methods of survival. The material in the manual shall be in easily understood terms and illustrated where appropriate. The following when applicable, shall be incorporated into the manual and explained in detail: > Donning of lifejackets, immersion suits and anti-exposure suits, as appropriate. > Muster at the assigned stations. > Boarding, launching, and clearing the survival craft, rescue boats, fast rescue boats, free-fall boats and inflated boats. > Method of launching from within the survival craft. > Release from launching appliances. > Methods and use of devices for protection in launching areas. > Illumination in launching areas. > Use of all survival equipment. > Use of all detection equipment. > With the assistance of illustrations, the use of radio lifesaving appliances. > Use of sea anchors. > Use of engine and accessories. > Recovery of the survival craft, rescue boats, fast rescue boats, free-fall boats and inflated boats including stowage and securing. > Hazards of exposure and the need for warm clothing. > Best use of the survival craft facilities in order to survive. > Methods of retrieval, including the use of helicopter rescue gear (slings, baskets, stretchers), breeches-buoy and shore life-saving apparatus and ship's line-throwing apparatus; all other functions contained in the muster list and emergency instructions. The fire safety operational booklet shall contain the necessary information and instructions for the safe operation of the ship and cargo handling operations in relation to fire safety. The booklet shall be written in the working language of the ship and be provided in each crew mess room and recreation room or in each crew cabin. The booklet may be combined with the fire safety training manuals required in regulation II-2/15.2.3. The booklet may be combined with the fire training manual. (SOLAS 74, 2020)	SOLAS TRAINING MANUAL – REFERENCE SOLAS / CH III- REG 35 Fire safety manual – SOLAS II-2 /15.2.3.4 Refer OJT -028 in SHEQ and ensure compliance Ensure number and location of solas training manual and fire safety manual is as per LSA/FFA plan	☐
4.39	If the vessel is provided with a helicopter operating area, does the area comply with the requirements of ICS guidelines, and is there a		Ensure strength confirmation letter from a classification society is available on board for landing area	☐

	safe access from the hatch cover to deck? (V)	**Guide to Inspection** **Record a Finding if a strength confirmation letter from a classification society is not available on board. A copy of the strength letter shall be collected by inspector and forwarded to RightShip. Inspector to provide 360-degree photos of landing site and access when practicable.** The strength of the HLS for the vessel is to be confirmed by the following documents: 1. Maximum designed load for helicopter landing on HLS as described in the structural drawings such as hatch cover, upper deck, etc. 2. Strength confirmation letter by HLS designer (shipyard, hatch cover maker, etc.) or the Flag State. 3. Strength confirmation letter issued by classification society in cases where neither items 1 nor 2 above are available. In order to issue the letter under this paragraph, the structural drawing of the HLS is to be submitted to the classification society. In addition, fire-fighting equipment for helicopter facilities are required to comply with the "Guide to Helicopter/Ship Operations, 5th Edition issued by the International Chamber of Shipping. The access from hatch cover to deck should be a fixed height inclined ladder with fixed handrails and front platform with operational load for two persons (150 KG). The steps and platforms should be made of non-slip materials. The Master of a vessel must ensure that any obstacle within the landing or winching area is clearly marked if it does com with the recommendations for obstacles in the ICS Guide. (AMSA Marine Orders Par In addition to the marking arrangements described, the vessel's manager should ensure that, if possible, a minimum of tv access/egress routes to and from the landing area available to ensure that, in the event of an incident on the landing area helicopter passengers and crew can escape upwind of the incident. Handrails exceeding the height limitation set out in section 4.1.2 of the Guide to helicopter/ship operation shall be retract collapsible or removed. Such handrails should be painted in a contrasting colour scheme and procedure should be in plac retract, collapse or remove them prior to the arrival of the helicopter. Red and white strips should be used for marking the position of notifiable objects within either the manoeuvring zone or clearing zone that exceed the height limits for those zone(refer figure 4.1 of the ICS Guide to Helicopter/Ship Operations Edition 5): > Object within the clear zone of heigh exceeding 2.5 cm > Objects outside the clear zone but within the manoeuvring zone of height exceeding 25 cm. Yellow should be used for marking the position of objects beyond the manoeuvring zone to which it is considered approp to draw the attention of the helicopter pilot. Yellow may also be used to mark objects within manoeuvring zone and clear zone below the height limits for either the clear zone(2.5 cm) or the manoeuvring zone(25 cm) and to which it is considere appropriate to draw the attention of the helicopter pilot. (ICS Guide to Helicopter/Ship Operations Editi	Access from hatch cover to deck (inclined ladder) shall be as per HSE PROCEDURE S MANUAL-4.14. HELICOPTER OPERATIONS Ensure markings as per the guide to inspection The ladder shall be protected from weather and stored in a proper location. Send photos of storage location to ship manager.	

4.40	Is an up-to-date muster list with ship specific emergency instructions displayed and is the fire control plan up to date, with any changes reviewed and approved by the class? (V)	**Guide to Inspection** Clear instructions to be followed in the event of an emergency shall be provided for every person on board in the language or languages required by the ship's flag State and in the English language. Muster lists and emergency instructions shall be exhibited in conspicuous places throughout the ship, including the navigation bridge, engine-room, and crew accommodation spaces. The muster list shall specify details of the general emergency alarm and public address system, and action to be taken by crew and passengers when this alarm is sounded. The muster list shall also specify how the order to abandon ship will be given. The muster list shall specify which officers are assigned to ensure that lifesaving and fire appliances are maintained in good condition and are ready for immediate use. The muster list shall specify substitutes for key persons who may become disabled. The muster list shall be prepared before the ship proceeds to sea. The muster list shall show the duties assigned to the different members of the crew including: > Closing of the watertight doors, fire doors, valves, scuppers, side scuttles, skylights, portholes, and other similar openings in the ship > Equipping of the survival craft and other life-saving appliances > Preparation and launching of survival craft. > General preparations of other life-saving appliances > Muster of passengers > Use of communication equipment manning of fire parties assigned to deal with fires, and > Special duties assigned in respect to the use of fire-fighting equipment and installations. > Illustrations and instructions in appropriate languages shall be posted in cabins and be conspicuously displayed at muster stations and other spaces to inform crew of: > Their muster station. > The essential actions they must take in an emergency, and > The method of donning lifejackets. The Master is responsible for keeping the fire control plan current and recording any modifications as soon as possible. As a result, if the Master / ship's manager make changes to the fire plan, they are responsible for submitting the updated fire plan to the classification society for approval and endorsement. > Renewal or update of the fire control plan is required in the following circumstances: 1-A modification is made to the firefighting system, the alarm system, the design of the escape route, or any other aspect of the current fire plan. The new system or design must be included, and the classification society's approval must be sought. 2-Any modifications to the ship's structure or particulars that influence the current fire plan must be incorporated into the plan. 3-Whenever a ship's flag is changed, the ship's fire control plan must be reviewed by the appropriate classification society. 4-When a classification society changes, the fire control plan must be reviewed by the new classification society.	Company muster lists 3.5.7 posted in bridge , engine room and crew spaces Muster list to be kept updated with latest crew Illustrations and instructions in appropriate languages shall be posted in **cabins** to inform crew of: their muster station and the essential actions they must take in an emergency Ship Manager shall be informed if any change is required in LSA/FFA plan and CLASS approval obtained if any changes are made. Instructions for donning immersion suits / life jackets to be posted for each make / model on board	☐

4.41	Are the crew familiar with the helicopter operation at sea, and are records available to show that the proper communication, shipboard helicopter safety checklist and specific risk assessment conducted prior to helicopter operation (v)	**Guide to Inspection** The inventory of helicopter equipment shall be in compliance with section 9.3 of the record of approved Ship Safety Equipment. Evidence of communication between helicopter and vessel's bridge team, shipboard safety checklist for helicopter operations, specific risk assessment (as per appendix B of Guide to Helicopter/Ship operation) should be available and reviewed by inspector. Helicopter operations are commonly used for embarkation and disembarkation of Pilot and medical evacuation in emergency situations. The helicopter operation is a complicated, high-risk operation. This operation demands accuracy, training, and clearly established procedures. The officers and crew members associated with these operations should show a high level of situational awareness and good seamanship. **For additional information, reference should be made to the Rightship best practice & lessons learned for Helicopter Operations High Potential Near Miss Incidents. Please download the document via this link.**	Shipboard safety checklist for helicopter operations to be completed prior helicopter operations (Form 3.3.7) Applicable procedures as per ICS guide including communication and contingency procedures to be strictly complied. Refer technical library publication. Training/ drill to be conducted to ship staff prior helicopter operation and recorded in COMPANY FORM 3.2.3 Also conduct tool box meeting and prepare Risk assessment prior helicopter operation (Refer bassnet for sample template) Please update equipment list and ensure all items are available. FFA shall be kept in close proximity to the landing / winching areas during helicopter operations. HSE PROCEDURE	☐

			S MANUAL-4.14. HELICOPTER OPERATIONS	
4.42	Are the lifebuoys, related equipment, and pyrotechnics in good working order?	**Guide to Inspection** Cargo ships shall carry not less than the following numbers of lifebuoys: > Under 100 metres in length - 8 > Between 100 metres and under 150 metres - 10 > Between 150 metres and under 200 metres - 12 > 200 metres and over – 14 At least one lifebuoy on each side of the ship shall be fitted with a buoyant line, equal in length to not less than twice the height at which it is stowed above the waterline in the lightest seagoing condition, or 30 metres, whichever is the greater. Not less than one half of the total number of lifebuoys shall be provided with self-igniting lights; Not less than two of these shall also be provided with lifebuoy self-activating smoke signals capable of quick release from the navigating bridge; Lifebuoys with lights and those with lights and smoke signals shall be distributed equally on both sides of the ship and shall not be the lifebuoys provided with lifelines. 12 rocket parachute flares must be carried and stored on or near the navigation bridge. There shall be a line throwing appliance that complies with the requirements of Section 7.1 of the Code. The officer of the watch shall have readily available an illustrated table describing the life-saving signals. The line throwing apparatus should be immediately available for use. The line and rockets should not be separated when stowed. Self-contained rocket line throwing appliances are frequently dismantled prior to transport to the vessel. Inspectors should verify that all equipment has been reassembled and rockets are properly positioned for immediate use. Containers, brackets, racks, and other similar stowage locations for life-saving equipment shall be labelled in accordance with IMO Resolution A.760(18) with symbols indicating the devices stowed in that location for that purpose. If that location is used to store more than one device, the number of devices must also be indicated. (SOLAS 74, 2020)	Ensure all lifebuoys are as per LSA plan and the lights are operational. Please ensure additional Lifebuoy with a self-igniting light and buoyant line is kept for immediate use in vicinity of means of embarkation/disembarkation arrangement (accommodation ladder/ gangway) as per requirements of MSC Circular 1331 on port and stbd side Ensure line throwing appliance is as per attached instructions and available for immediate use. The line and rocket should not be separated. Ensure life saving signal is posted on bridge Ensure IMO symbol is posted on each LSA and also the number of devices is posted	☐

			Check expiry date of 12 rocket parachute flares Lifebuoy lines shall be non kinking	
4.43	Are adequate familiarization procedures in place that cover the personal safety and professional obligations of new personnel and personnel transferred to a new assignment, and are documents available to confirm effective familiarization	**Guide to Inspection** The company should establish procedures to ensure that new personnel and personnel transferred to new assignments related to safety and protection of the environment are given proper familiarization with their duties. Instructions which are essential to be provided prior to sailing should be identified, documented and given. (ISM code and guidelines on the implementation of the ISM code, 2018) Deck officer familiarization with navigation equipment should be delivered one-on-one using a common language using the Bridge Procedure Guide's (BPG) checklist C2.3 and C2.4. Familiarization should include all bridge equipment and procedures relevant to the roles and responsibilities of each bridge team member. (Bridge Procedure Guide, 2022)	HSE PROCEDURES MANUAL / CHAPTER 4.6 / SECTION 14 OFFICE PROCEDURES MANUAL- 5.0 RESOURCES AND PERSONNEL – SECTION 6 - FAMILIARISATION TRAINING FORM 4.1.2 (B1-B6),4.1.2 E FORMS – NAV B3 and B4 NAUTICAL MANUAL – CHAPTER 3	☐

GALLAGHER MARINE SYSTEMS
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11 April 2024
Client Advisory – #14-24
Emergency Power Source, Blackout Tests, and Steering Drills

Background:
Recently there have been incidents that may be attributed to power failure and loss of propulsion. These incidents have brought focus to power management, maintenance, tests, and drills.

Actions:
GMS encourages our compliance partners to thoroughly review written procedures, testing, and drills for:

- Emergency generator under load.
- Restarting essential equipment - A written procedure should be readily available within the engine room, which should be vessel-specific to effectively identify relevant controls.
- Regaining power from the emergency source:
  - To the main switchboard.
  - Charging the air receivers for the main diesel generators to ensure electrical power is provided to all auxiliaries (fuel and lubricating oil pumps and the boiler supply).
  - Restarting all auxiliaries.
  - Restarting the main engine and boiler.

As a reminder of SOLAS requirements:

- Each emergency generating set arranged to be automatically started shall be equipped with starting devices approved by the Administration with a stored energy capability of at least three consecutive starts. A second source of energy shall be provided for an additional three starts within 30 minutes unless manual starting can be demonstrated to be effective (SOLAS II-1/44.2). These instructions are not for the use of the qualified engineering personnel, but for others who might be required to start the generator in an emergency and ensure there is instruction on how to put power on the emergency switchboard if not an automatic system.
- Where the emergency generator starting source relies on a single starter motor, then a spare starter motor should be available.
- The emergency batteries must supply the designed power load for up to 18 hours.
- Emergency steering drills shall take place at least once every three months to practice emergency steering procedures. These drills shall include direct control within the steering gear compartment, the communications procedure with the navigation bridge and, where applicable, the operation of alternative power supplies. (SOLAS V/26.4).
-

- Simple operating instructions with a block diagram showing the changeover procedures for remote control systems and steering gear power units shall be permanently displayed on the navigation bridge and in the steering gear compartment.
- A fixed storage tank shall be provided having sufficient capacity to recharge at least one power actuating system including the reservoir (SOLAS II-1/29.12.3). This may not necessarily mean a full tank. A minimum level to comply with these requirements should have been established.
- Simple operating instructions with a block diagram showing the change-over procedures for remote control systems and steering gear power units shall be permanently displayed on the navigation bridge and in the steering gear compartment (SOLAS V/26.3.1).
- Verify that ECDIS should be functional on main and emergency power supply.
- Procedure for the weekly starting of emergency generator, monthly simulation of load from busbar cutoff and the procedures for the annual blackout test and drills.

In addition to the emergency steering drill mentioned above, U.S. Coast Guard regulations in 33 CFR 164.25 (d) state that "No vessel may enter, or be operated on the navigable waters of the United States unless the emergency steering drill described below has been conducted within 48 hours prior to entry and logged in the vessel logbook, unless the drill is conducted and logged on a regular basis at least once every three months. This drill must include at a minimum the following:

1) Operation of the main steering gear from within the steering gear compartment.
2) Operation of the means of communications between the navigating bridge and the steering compartment.
3) Operation of the alternative power supply for the steering gear if the vessel is so equipped."

Summary:
GMS compliance partners are strongly encouraged to review this Client Advisory and share it with fleet vessels.

Any questions related to this advisory should be sent to:
techservices@gallaghermarine.com

END OF ADVISORY

No.1270
26 April 2024

JAPAN P&I NEWS

To the Members

China (Zhoushan Port)－Local government issued a guide to ship owners for bunkering at the five anchorages

Local government of Zhoushan port issued a guide to ship owners for receiving bonded bunkers at Zhoushan port recently, introducing the coordinates, navigational requirement, anchoring requirement, meteorological restriction, and other useful information of the five main bunkering anchorages. We have obtained information by Oasis P&I Services Company Limited. For details, please find attached their circular.

The five anchorages include Xiazhimen North Anchorage, Tiaozhoumen Anchorage, Xiushan East Anchorage, Mazhi Anchorage and Qushan Temporary Anchorage. As there are many fishing vessels operating in these area, vessels intended to bunker at Zhoushan port are suggested to follow the recommended navigational routes, comply with the various requirements stated in the aforementioned guide, as well as other local regulations and international conventions, and keep watch at all times. Vessels are also suggested to contact their local ship agent in advance for detailed information and obtain guidance in case it is required.

Yours faithfully,

The Japan Ship Owners' Mutual Protection & Indemnity Association

Attachment: Oasis Circular No.2404

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Date: 23 April 2024

Oasis Circular No.: 2404

Subject: Local government issued a guide to ship owners for bunkering at the five anchorages of Zhoushan port, China

Local government of Zhoushan port issued a guide to ship owners for receiving bonded bunkers at Zhoushan port recently (hereinafter referred to as "the Guide"), introducing the coordinates, navigational requirement, anchoring requirement, meteorological restriction, and other useful information of the 5 main bunkering anchorages. A summary of the 5 anchorages is given below for your easy reference and our free English translation of the Guide is attached to this circular.

I. Xiazhimen North Anchorage

Vessels shall obtain approval from Ningbo VTS before entering and/or dropping anchor here.

Vessels shall follow the recommended routes when entering and/or leaving this anchorage and obtain prior approval from Ningbo-Zhoushan VTS for crossing the "Deep Water Channel".

During bunkering operation, vessels shall keep their main engines on standby and maintain strengthened lookout.

II. Tiaozhoumen Anchorage

Vessels departed from Zhoushan port through Xiazhimen channel or Tiaozhoumen channel could proceed to this anchorage directly for bunkering, however, vessels shall not cross the Xiazhimen south anchorage when proceeding.

While waiting here for bunkering, vessels shall anchor at difference zones of the 1# Management Area and adopt different routes according to its draft (i.e., whether it exceeds 14 m or not). There is a risk of dragging anchor at the 1# anchoring position, therefore vessels are not allowed to anchor here during the spring tide (12 days per month).

Vessels shall apply for Shallow Navigation Plan (applicable for draft greater than 16 m) or Deep Water Channel Plan (applicable for draft greater than 19 m) one day in advance via Vessel Traffic Service Management Platform of Zhejiang MSA before entering and/or departing from Tiaozhoumen outer anchorage

III. Xiushan East Anchorage

The qualified bunker barges shall apply for registration before MSA prior to conducting bunker supply to vessels during night time.

Saving for the 12# anchoring position, ocean-going vessels shall apply to Vessel Traffic Service Management Platform online for anchoring at other anchoring positions.

IV. Mazhi Anchorage

Vessels anchoring by using a single anchor, the length of the anchor chain on deck shall be no less than 5 shackles.

Vessels entering and/or departing from this anchorage shall apply for Shallow Navigation Plan (applicable for draft greater than 16 m) or Deep Water Channel Plan (applicable for draft greater than 19 m) one day in advance via Vessel Traffic Service Management Platform.

V. Qushan Temporary Anchorage

Vessels shall enter this anchorage and/or drop anchors against the current, different routes shall be adopted under different tidal conditions. Vessels shall follow the recommended routes when departing from this anchorage.

In case the current speed exceeds 3 knots, no bunkering operation shall be conducted.

Our suggestions

As there are many fishing vessels operating in this area, vessels intended to bunker at Zhoushan port are suggested to follow the recommended navigational routes, comply with the various requirements stated in the Guide as well as other local regulations and international conventions, and keep watch at all times.

In case the vessel sustains hull damages by the bunker vessel during the bunkering operation, the vessel is suggested to collect evidences, issue a statement and inform owners and their insurers in time, so as to seek a possible recovery from the liable parties.

Vessels are suggested to contact their local ship agent in advance for detailed information and obtain guidance when entering and/or departing from the anchorages in case it is required.

We hope that the above is of assistance. If there is any query, please feel free to contact us at oasis@oasispandi.com at any time.

Best regards,

Oasis P&I Services Company Limited

Attachment: Free English translation of the Guide to Ship Owners on Bunkering Bonded Oil at Zhoushan (2024 Edition)

Attachment

Free translation

Guide to Ship Owners on Bunkering Bonded Oil at Zhoushan (2024 Edition)

Zhoushan is the main open sea gateway for the eastern coast of China and the Yangtze River basin to the world. Among the seven main international routes entering and/or departing from China, six of which pass through Zhoushan sea area, with nearly 110,000 ocean-going vessels passing through annually. More than 24,000 ocean-going vessels stop by in Zhoushan, and it has the capacity of 17 million cubic meters for bonded oil, covering various scenarios of bunkering bonded oil including bunkering at inner or outer anchorage, berth, and cross-border port areas. It's a comprehensive maritime service port with the highest efficiency, the most complete varieties of the fuel, and with the most transparent pricing in China. It's the largest bunker supply port in China and the fourth largest bunker supply port in the world. In order to provide ship owners with comprehensive information, we prepared this letter regarding the coordinates, navigational requirement, meteorological information, and other information of the main anchorages for bunkering in Zhoushan for your reference.

I. Xiazhimen North Anchorage

1. Coordinates

1 # Anchoring position: 29°46'18.0"N, 122°20'40.0"E
2 # Anchoring position: 29°46'18.0"N, 122°21'50.0"E
3 # Anchoring position: 29°46'00.0"N, 122°23'00.0"E

2. Navigation and anchoring requirements

a) Bunker barges shall use the Bogumen or Fulimen channel to enter and/or depart from the anchorage.

b) If a bunker barge plans to continue operation at Tiaozhoumen Anchorage, it shall apply to Ningbo VTS in advance and obtain permission before crossing southward from the east to the 5# buoy (29°43'17"N, 122°24'72"E) and 6# buoy (29°43'04"N, 122°24'03"E) of Deep Water Channel after completing bunker operation at Xiazhimen North Anchorage, and shall not hinder the inbound and outbound vessels.

c) The bunker receiving vessel (hereinafter referred to as the “Vessel”) heading towards Xiazhimen North Anchorage following the coastal public route in Zhejiang shall enter via the north of 29°46.5'N. Vessel that already anchored at

north of 29°48'N could directly enter Xiazhimen North Anchorage. After bunkering, vessel shall depart from the north of 29°46.5'N (as shown in the following diagram).

d) Vessel departing from the Xiazhimen Channel is strictly prohibited from altering northward without permission. The vessel shall firstly sail eastward following the south of the Deep Water Channel, and after passing through the 3# buoy of Deep Water Channel, apply to Ningbo-Zhoushan VTS to cross the Deep Water Channel northward. Then, the vessel shall sail westward to Xiazhimen North Anchorage for bunkering or continue to sail northward to drop anchor and wait in the water area in the north of 29°48'N.

e) Vessel departing from the Tiaozhoumen Channel shall sail eastward following the recommended route on the south off the Tiaozhoumen Channel. After passing through the 3# buoy of Deep Water Channel (29°42'40"N,122°27'65"E), the vessel shall apply to Ningbo - Zhoushan VTS to cross the Deep Water Channel northward. Afterwards, it shall sail westward to the North Anchorage for bunkering, or continue to drop anchor and wait in the water area north of 29° 48'N.

f) If a bunker barge is not engaged in bunkering operation, it shall anchor in the water area 1 nm away from the north of the Xiazhimen North Anchorage.

(Diagram 1: Bogumen channel and Fulimen channel)

3. Restrictions

a) The meteorological wind speed reported by Zhoushan Oceanic Meteorological Observatory Forecast shall not exceed 13.8m/s (Force 6) and wind speed

reported by Zhoushan Meteorological Bureau Forecast shall not exceed 17.1 m/s (Force 7).

b) The maximum height of wave during bunkering shall not exceed 1.5 m, the optimal height of wave shall not exceed 1 m, and the visibility for mooring and unmooring shall exceed 1 nm.

c) This anchorage can be used for mooring at night.

4. Notes

a) The Xiazhimen anchorage is for bunkering bonded oil only, and the operation schedule at this anchorage is arranged by the Bonded Oil Dispatch Centre of Zhoushan Comprehensive Bonded Zone.

b) The bunker barge shall maintain her AIS normal display and keep effective watch on VHF channel 08. Before entering the anchorage, the bunker barge shall report to Ningbo VTS and obtain permission in advance. Report shall also be made to Ningbo VTS after the bunker barge has entered the anchorage and moored alongside the vessel, starting bunkering, and unmooring from the vessel after bunkering is completed. During the period of bunkering, the bunker barge shall keep her engine on standby and maintain proper lookout, ensure her main engine is always available, strengthen the crew's vigilance and always check the mooring lines' tension.

c) The vessel shall maintain the AIS normal display, keep effective watch on VHF channel 08, and comply with the management of Ningbo - Zhoushan VTS. Before entering the anchorage, vessel shall apply for an anchoring position from Ningbo VTS and obtain permission. Before arriving at the designated water area to drop anchor, vessel shall voluntarily contact Ningbo VTS to verify the anchoring position and obtain permission before dropping anchor. The vessel shall report to Ningbo VTS from the time when anchor is properly dropped until the bunker operation is completed. During the bunkering operation, the vessel shall keep her engine on standby and maintain navigational lookout, ensure her main engine is always available, and to prevent dragging anchor. After bunkering, the vessel shall depart in a timely manner to provide convenience to subsequent bunkering vessels.

d) Bunker barge shall strictly adhere to the requirements for declaring dangerous goods on board and the reporting requirement for bunking operation.

e) For ocean-going vessels that intend to bunker at Zhoushan port for the first time, the local ship agent shall voluntarily contact the foreign vessel to confirm the navigation route for entering and leaving the anchorage. Any incorrect route shall

be corrected in a timely manner, and comprehensive tracking and guidance services shall be provided. At the same time, ocean-going vessels shall contact the local agent in advance for consultation and clarification if they need any assistance for entering and/or departing from the anchorage.

II. Tiaozhoumen Anchorage

1. Coordinates

1 # Anchoring position: 29°39'58.0"N, 122°18'28.0"E
2 # Anchoring position: 29°39'03.0"N, 122°17'04.0"E
3 # Anchoring position: 29°38'51.0"N, 122°18'58.0"E
4 # Anchoring position: 29°38'04.3"N, 122°16'26.8"E
5 # Anchoring position: 29°37'09.2"N, 122°18'24.4"E

2. Navigation and anchoring requirements

a) Bunker barges shall use the Tiaozhoumen channel to enter and/or depart from the port.

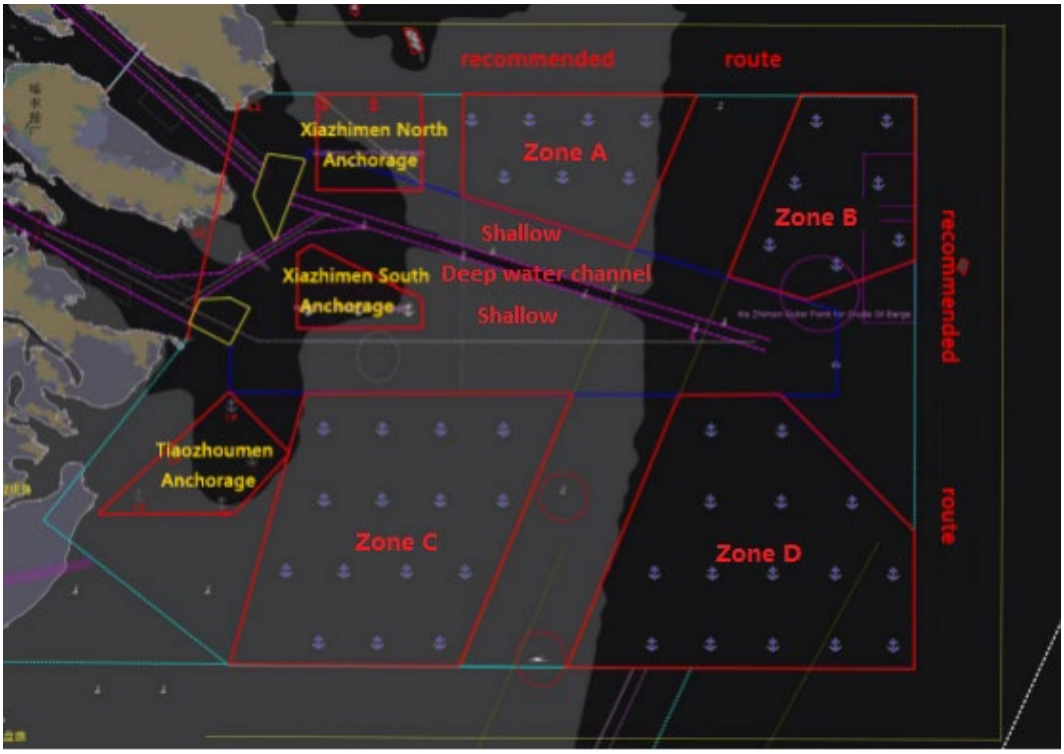
b) Vessels sailing towards the Tiaozhoumen anchorage via the coastal public route of Zhejiang shall alter course in the water area between 29°37'N and 29°43'N to avoid altering too early or too late, and then enter the anchorage via the north of the recommended route outside the Tiaozhoumen. After bunkering, the vessel shall depart accordingly via the south of the recommended route outside the Tiaozhoumen (as shown in the following diagram).

c) Vessels using the Zhejiang coastal eastern route upon departure shall alter to east after passing 122° 34'E. If a vessel chooses the outer route, it shall alter to the east after passing 122° 44'E. A vessel that does not choose the common route is recommended to sail 10 nm away from east of the outer route before altering course.

d) For a vessel waiting for bunkering, it's recommended if her draft is less than 14 m, to anchor in Zone C of 1# Management Area, and if her draft is more than 14 m, to anchor in Zone D of 1# Management Area. Vessels anchoring in Zone C of 1# Management Area directly enter the Tiaozhoumen anchorage while vessels anchoring in Zone D of 1# Management Area should follow the recommended route outside the Tiaozhoumen when entering the anchorage.

e) Vessel departing from the Xiazhimen or Tiaozhoumen channels directly sail to the Tiaozhoumen anchorage for bunkering, or waiting at Zone C or Zone D of the 1# Management Area, but shall not cross the southern anchorage of Xiazhimen.

f) If a bunker barge is not engaged in bunker operation, it shall anchor in Zone C of the 1 # Management Area.



(Diagram 2: Illustration of 1# Management Area)

3. Restrictions

a) The meteorological wind speed reported by Zhoushan Oceanic Meteorological Observatory Forecast shall not exceed 13.8m/s (Force 6) and wind speed reported by Zhoushan Meteorological Bureau Forecast shall not exceed 17.1m/s (Force 7).

b) The maximum height of wave during bunkering shall not exceed 1.5 m.

c) The visibility for mooring and unmooring shall exceed 1 nm.

4. Notes

a) The Tiaozhoumen Anchorage is the anchorage dedicated for bunkering bonded oil only, and the operation schedule is arranged by the Bonded Oil Dispatch Centre of Zhoushan Comprehensive Bonded Zone.

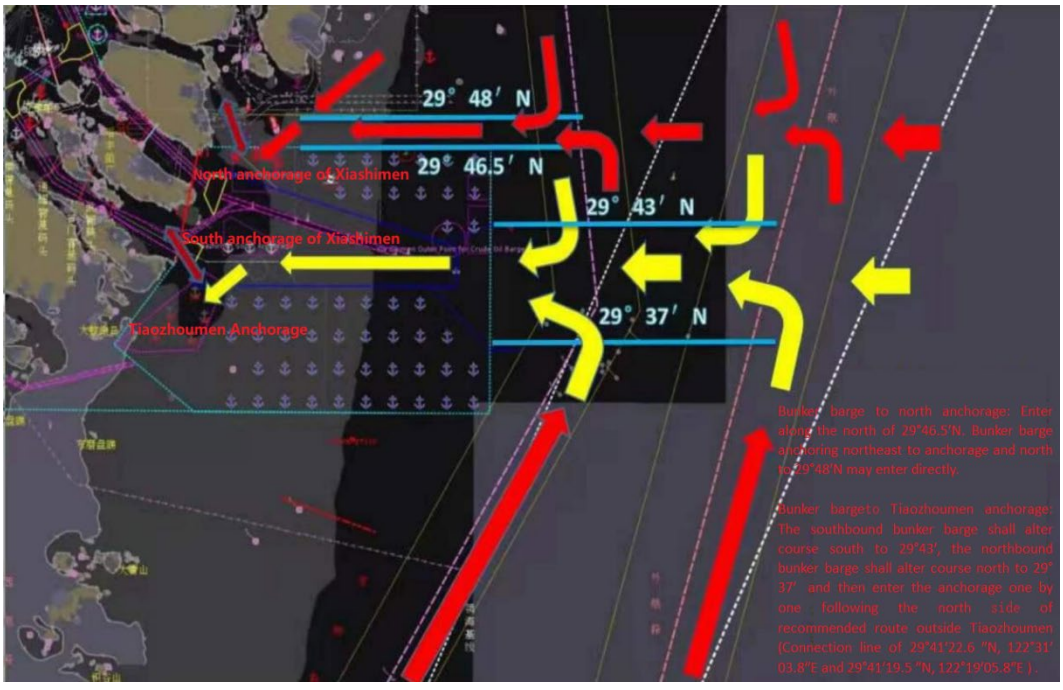
b) Vessels with draft of less than 18 m shall enter or depart from Tiaozhoumen Anchorage following the recommended route outside the Tiaozhoumen. Vessels with draft of more than 18 m shall enter or depart from the Tiaozhoumen Anchorage via the Deep Water Channel of Xiazhimen.

c) There is a risk of dragging anchor at the 1 # anchoring position of Tiaozhoumen, and it's prohibited to use it during the spring tide (two days before and three days after the first and sixteenth day of each lunar month). During other times, strengthen the lookout and keep VHF on watch when anchoring.

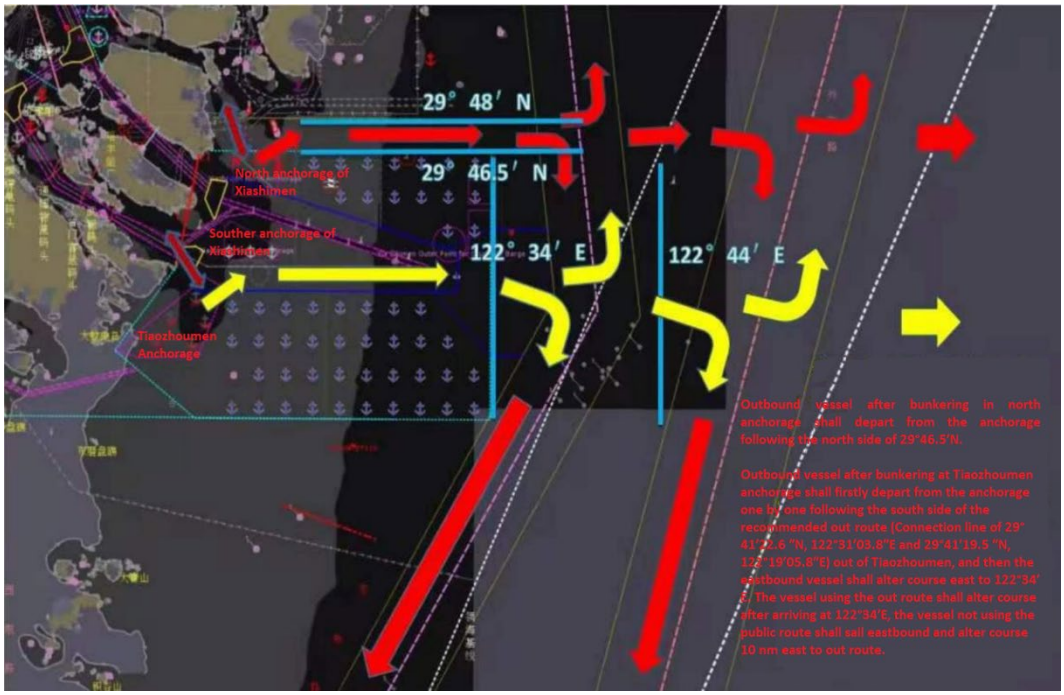
d) For vessel with draft exceeding 16 m, the ship owner, operator or local agent shall apply for Shallow Navigation Plan or Deep Water Channel Plan one day in advance via Vessel Traffic Service Management Platform of Zhejiang MSA when entering and/or departing from the outer anchorage of Tiaozhoumen. Shallow Navigation Plan shall be applied for vessel with draft exceeding 16 m, while Deep Water Channel Plan shall be applied for vessel with draft exceeding 19 m.

e) Bunker barge shall strictly adhere to the requirements for declaring dangerous goods on board and reporting requirement for bunkering operation.

f) For ocean-going vessels that intend to bunker at Zhoushan port for the first time, the local ship agent shall voluntarily contact the foreign vessel to confirm the navigation route for entering and leaving the anchorage. Any incorrect route shall be corrected in a timely manner, and comprehensive tracking and guidance services shall be provided. At the same time, ocean-going vessels shall contact the local agent in advance for consultation and clarification if they need any assistance for entering and/or departing from the anchorage.



(Diagram 3: Navigation method when entering the anchorages)



(Diagram 4: Navigation method when departing from the anchorages)

III. Xiushan East Anchorage

1. Coordinates

A. 30°10'15.0"N, 122°13'19.0"E
B. 30°10'15.0"N, 122°17'18.0"E
C. 30°07'54.0"N, 122°13'19.0"E
D. 30°07'54.0"N, 122°17'18.0"E

2. Restrictions

a) The meteorological wind speed reported by Zhoushan Oceanic Meteorological Observatory Forecast shall not exceed 17.1m/s (Force 7), and if the wind direction is northeast, east or southeast, the wind speed shall not exceed 13.8m/s (Force 6).

b) The maximum height of wave during bunkering shall not exceed 1.5 m.

c) The visibility for mooring and unmooring shall exceed 1 nm.

d) Qualified bunker barges can carry out berthing and bunkering of bonded oil at night after completing the registration with the relevant departments of MSA.

3. Notes

a) 12# anchoring position is the position dedicated for bunkering bonded oil only, and the operation schedule is arranged by the Bonded Oil Dispatch Centre of Zhoushan Comprehensive Bonded Zone.

b) Saving for 12 # anchoring position, all other anchoring positions for ocean-going vessels shall be applied through Vessel Traffic Service Management Platform online.

c) During the bunkering operation, all vessels shall maintain smooth communication and stay on duty around the clock.

d) Bunker barge shall strictly adhere to the requirements for declaring dangerous goods on board and reporting requirement for bunkering operation.

IV. Mazhi Anchorage

1. Coordinates

1# Anchorage

A. 29°55'30.0"N, 122°12'42.0"E
B. 29°55'30.0"N, 122°16'30.0"E
C. 29°54'00.0"N, 122°16'30.0"E
D. 29°54'00.0"N, 122°12'42.0"E

2# Anchorage

A. 29°53'20.0"N, 122°12'30.0"E
B. 29°53'20.0"N, 122°13'30.0"E
C. 29°52'30.0"N, 122°13'30.0"E
D. 29°52'30.0"N, 122°12'12.0"E

2. Navigation and anchoring requirements

a) When the bunker barge approaches the vessel, it shall contact the vessel in advance and inform the vessel to prepare for mooring and unmooring.

b) If a bunker barge is not engaged in bunker operation, it shall wait outside the anchorage.

3. Restrictions

a) The meteorological wind speed reported by Zhoushan Oceanic Meteorological Observatory Forecast shall not exceed 17.1m/s (Force 7) or wind speed reported

by Zhoushan Meteorological Bureau Forecast shall not exceed 20.7m/s (Force 8).

b) The maximum height of wave during bunkering shall not exceed 1.5 m.

c) The visibility for mooring and unmooring operation shall exceed 1 nm.

d) The anchorage can be used for mooring at night.

4. Notes

a) The Y5 # anchoring position is the anchoring position dedicated for bunkering bonded oil only, and the operation schedule is arranged by the Bonded Oil Dispatch Centre of Zhoushan Comprehensive Bonded Zone.

b) Saving for Y5 # anchoring position, all other anchoring positions for ocean-going vessels shall be applied through Vessel Traffic Service Management Platform online.

c) During bunkering, all vessels shall maintain smooth communication and remain on duty around the clock. After the bunkering is completed, report shall be made to the Zhoushan VTS immediately.

d) If the vessel is anchoring by using a single anchor, the length of the anchor chain on deck shall not be less than 5 shackles.

e) For a vessel with draft exceeding 16 m, the ship owner, operator or local agent shall apply for Shallow Navigation Plan or Deep Water Channel Plan one day in advance via Vessel Traffic Service Management Platform of Zhejiang MSA when entering and/or departing from Mazhi anchorage. Shallow Navigation Plan shall be applied for vessel with draft exceeding 16 m, while Deep Water Channel Plan shall be applied for vessel with draft exceeding 19 m.

f) Bunker barge shall strictly adhere to the requirements for declaring dangerous goods on board and reporting requirement for bunkering operation.

V. Qushan Temporary Anchorage

1. Coordinates

1 # Anchoring position: 30°27'35.4"N, 122°28'4.4"E
2 # Anchoring position: 30°27'36.4"N, 122°29'25.6"E

2. Navigation and anchoring requirements

a) The vessel shall enter the anchorage and/or drop anchor against the current. When departing from the anchorage, the vessel shall use the northern section of the Sheyimen Channel and the previous Zhebei Central Channel. When the tide is rising, the vessel shall alter eastward against the current from the Sheyimen channel to enter the Qushan Temporary Anchorage (See vessel C in the following diagram), and when the tide is ebbing, the vessel shall alter to westward against the current from the previous Zhebei Central Channel to enter Qushan Temporary Anchorage (See vessel A or vessel E in the following diagram)

b) There are two main routes for vessel departing from the Qushan Temporary Anchorage. One is to sail westward through the Sheyimen Channel after heaving up anchor, and the other is to sail eastward through the previous Zhebei Central Channel.

aa) As shown in the following diagram, vessel B heaves up anchor and sails eastward. If it sails southward through the previous Zhebei Central Channel, it shall enter the southbound lane of the previous Zhebei Central Channel at a small angle after departing from the anchorage (the dotted arrow in forward-starboard side of the vessel B). If it sails northward through the previous Zhebei Central Channel, it shall firstly cross the southbound lane of the previous Zhebei Central Channel vertically and then enter the northbound lane and sail northward (the solid arrow in forward-port side of the vessel B).

bb) As shown in the following diagram, vessel D heaves up anchor and sails westward, and when heading northward through the Sheyimen Channel, it shall enter the northward lane of the Sheyimen hannel at a small angle after departing from the anchorage. Due to the southern section of the Sheyimen Channel is narrow and there are Shulanghu and Sheyimen operating areas on both sides, the vessel normally shall not depart from the Qushan Temporary Anchorage from the southern section of the Sheyimen Channel.

c) Bunker barges shall follow the customary route for small boats in principle.

3. Restrictions

a) The meteorological wind speed reported by Zhoushan Oceanic Meteorological Observatory Forecast shall not exceed 13.8m/s (Force 6) , and the wind speed in other directions shall be less than or equal to 17.1m/s (Force 7).

b) The maximum height of wave during bunkering shall not exceed 1.5 m.

c) The visibility for mooring and unmooring shall exceed 1 nm.

d) The current speed shall be less than 3 knots.

4. Notes

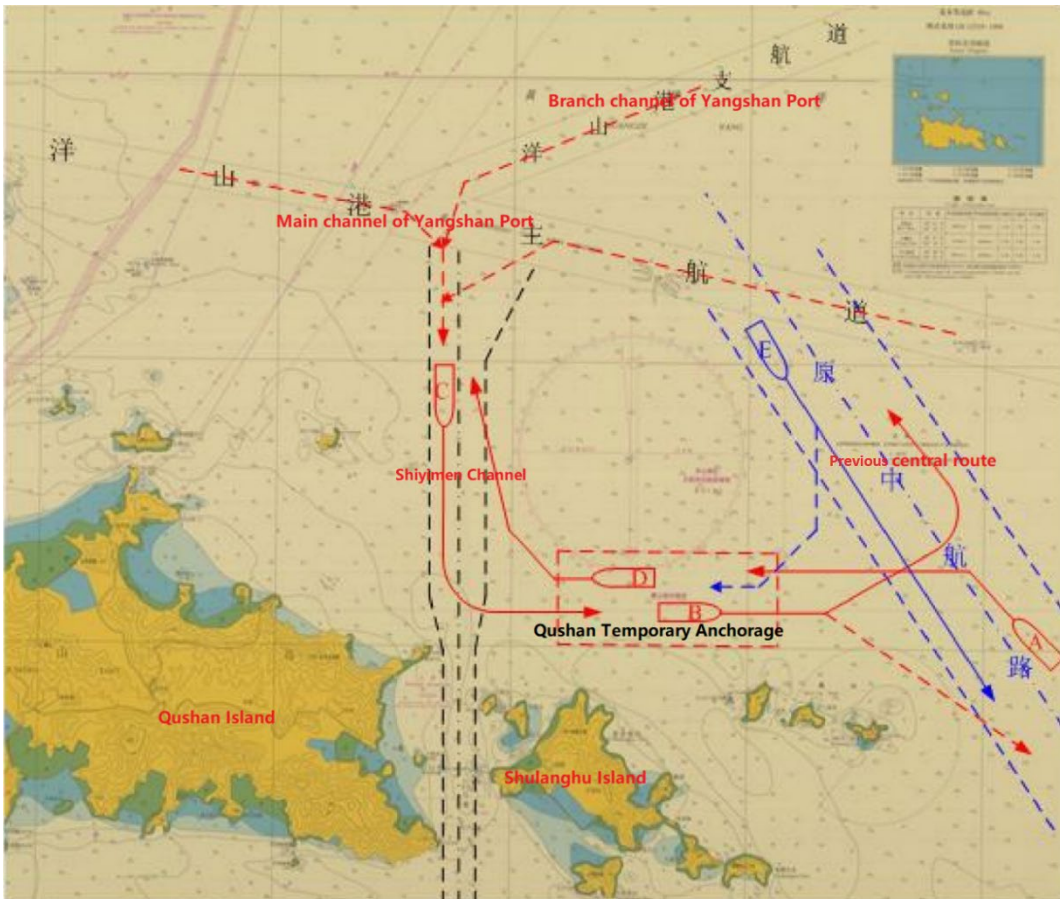
a) Ocean-going vessels shall apply for anchoring position through Vessel Traffic Service Management Platform online.

b) Bunker barges of "Zhoushan Type" or other bunker barges with DWT of 3000 mt or above are allowed to carry out bunkering bonded oil service at this anchorage.

c) When a vessel heaves up and/or drops anchor, it shall report to Zhoushan VTS through the VHF 30 mins in advance, and keep watch on VHF channel 16 and channel 12 throughout the entire process.

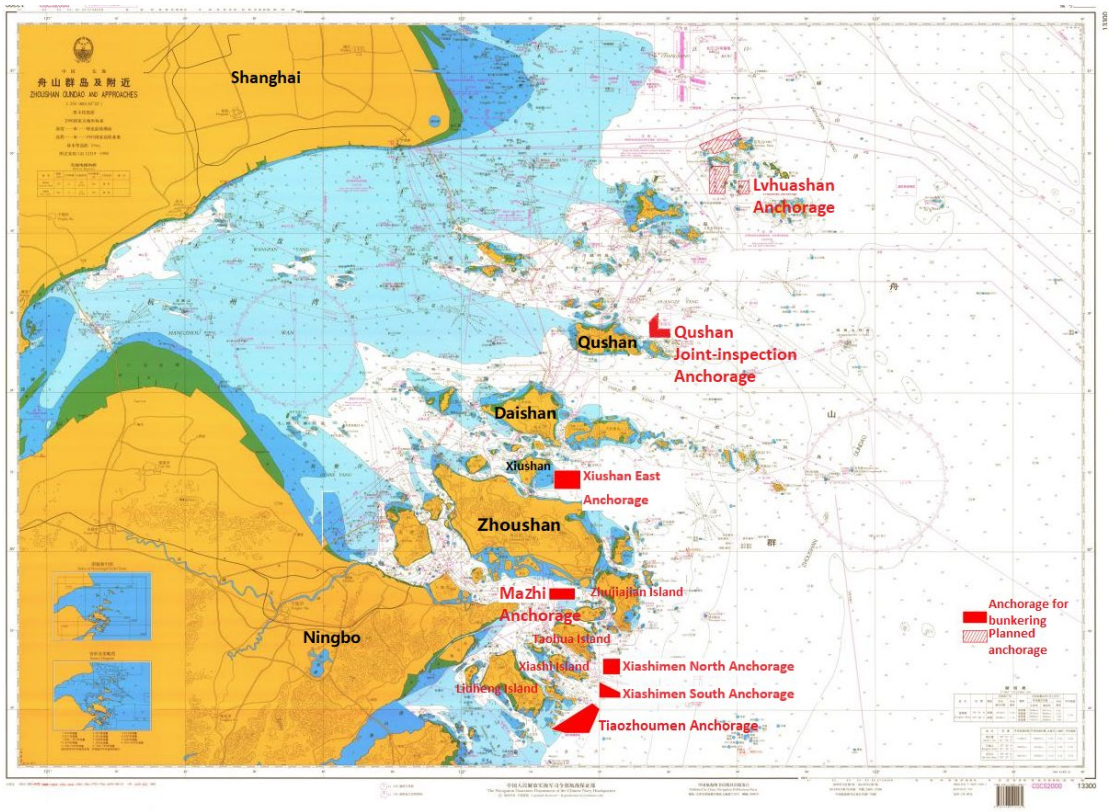
d) Bunker barge shall strictly adhere to the requirements for declaring dangerous goods on board and reporting requirement for bunkering operation.

e) Bunker barges shall strictly implement the operational procedures to ensure safe mooring. Fenders shall be arranged when mooring, appropriate mooring methods shall be used and the mooring ropes shall be checked and adjusted at any time.



(Diagram 5: Navigation method when entering and/or departing from Qushan Anchorage)

VI. Main anchorages for bunkering at Zhoushan



(Diagram 6: Main anchorages for bunkering at Zhoushan)

VII. Key websites for meteorological information

Zhoushan Oceanic Meteorological Observatory: https://www.zsghqx.com/

Zhoushan Sea Tide and Current Information Release:
http://hai.tsphp.com/index.php?wap

Zhoushan Meteorological Bureau: http://www.zs121.com.cn/wapnew/gztqyb.aspx

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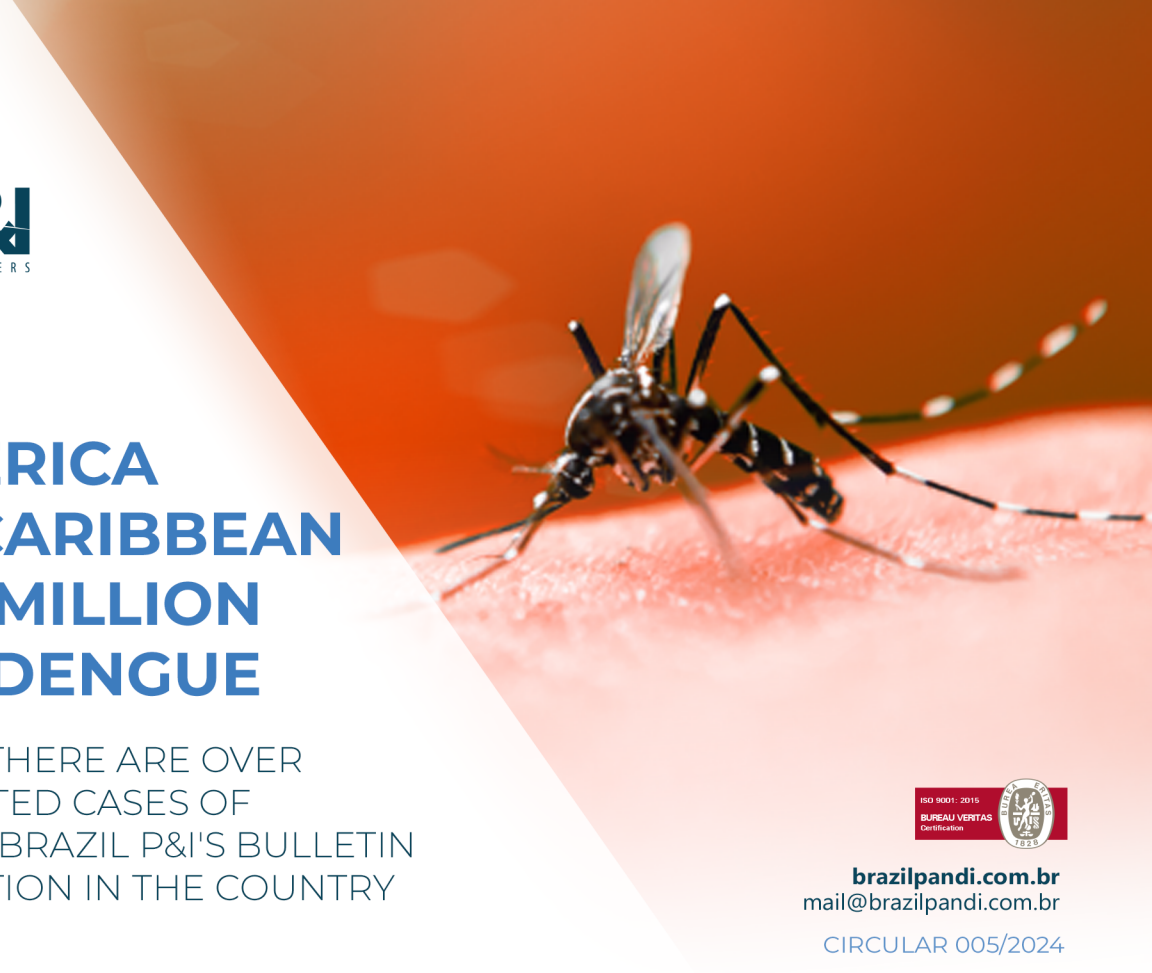

LATIN AMERICA AND THE CARIBBEAN TOTAL 4.6 MILLION CASES OF DENGUE

IN BRAZIL ALONE, THERE ARE OVER 3 MILLION SUSPECTED CASES OF THE DISEASE, AND BRAZIL P&I'S BULLETIN SHOWS THE SITUATION IN THE COUNTRY

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CIRCULAR 005/2024

INTRODUCTION

Countries in Latin America and the Caribbean have reported approximately 4.6 million cases of dengue this year. The number represents a 237% increase compared to the same period last year. The significant increase is caused by the epidemic in Brazil. The country surpasses 3.5 million probable cases in 2024, or 67.4% of the reports from other locations.

The information comes from the Pan American Health Organization (PAHO). The data was collected in the first 15 weeks of the year and includes the first few days of April. In absolute numbers, Brazil leads the ranking. The countries immediately behind Brazil, Paraguay, Argentina, and Peru, in order, do not exceed 200 thousand cases each.

One of the reasons that explain Brazil's prominence is the fact that it is the country with the largest population. However, when looking at the incidence of dengue, i.e., the proportion of cases in relation to the population, the country ranks second, behind Paraguay.

Incidence Rate of Probable Cases - (per 100,000 inhabitants)

State	Incidence Rate	Probable Cases
Distrito Federal	7841,6	220.903
Minas Gerais	4996,9	1.026.290
Paraná	3010,8	344.532
Espírito Santo	2822,3	108.192
Goiás	2417,9	170.588
Santa Catarina	2003,7	152.472
São Paulo	1586,2	704.580
Rio de Janeiro	1291,1	207.274
Bahia	978,1	138.261
Rio Grande do Sul	832,5	90.585
Acre	715,5	5.939
Amapá	564,3	4.139
Mato Grosso	532,2	19.473
Mato Grosso do Sul	516,1	14.226
Rio Grande do Norte	372,8	12.311
Rondônia	281,0	4.442
Tocantins	278,5	4.209
Amazonas	241,0	9.499
Pernambuco	224,2	20.310
Paraíba	208,7	8.294
Piauí	191,9	6.274
Pará	163,8	13.291

According to PAHO's numbers, Paraguay has an index of 2,540 cases per thousand inhabitants, while Brazil registers 1,816. However, according to the Brazilian Ministry of Health, the incidence rate is 1,529 per group of one thousand people. Regarding confirmed dengue deaths, Brazil has recorded 1,292 cases in 2024.

The country leads PAHO's absolute numbers ranking. However, proportionally, the country ranks ninth, behind Paraguay, Guatemala, Peru, Bolivia, Honduras, Ecuador, Argentina, and Panama.

The World Health Organization (WHO) actively monitors dengue outbreaks and epidemics in at least 23 countries, 17 of which are in the Americas - including Brazil. The increase in cases is due to environmental factors such as increased rainfall and consequently humidity, favoring the proliferation of the mosquito, as well as rising global temperatures, both phenomena caused by climate change.

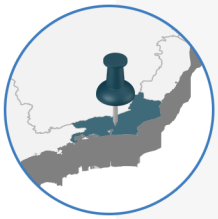
SEE HOW THE SITUATION IS IN THE CITIES THAT HOST THE MAIN BRAZILIAN PORTS:

SANTOS

In the city that houses the right bank of the country's largest port, 1,258 cases of dengue have been confirmed. There are already 1,864 probable records. Two deaths are under investigation.

In Guarujá, on the other bank, there are 3,253 suspected cases, including three deaths. Two other deaths have already been confirmed in the city, as well as 2,797 cases.

The state of São Paulo has recorded more than 600 thousand confirmed cases of dengue this year. The number of deaths has reached 305, and another 618 deaths are still under investigation.



RIO DE JANEIRO

According to the Rio de Janeiro State Department of Health, there has been a progressive decrease in cases of the disease over the past three weeks. Probable dengue cases fell by almost 50% in the state, from 14,782 in week 12 (from 03/17 to 03/23) to 7,406 in week 13 (from 03/24 to 03/30).

In the city of Rio de Janeiro alone, there are 91.6 thousand probable cases and 12 deaths under investigation. Among the confirmed records, the total is over 78 thousand.

According to the epidemiological scenario, the state of Rio went from level 3 of the secretariat's contingency plan (when the number of probable cases is ten times above the endemic limit) to level 2 (between five and ten times). Four regions of the state - Serrana, Metropolitan I, which includes the Baixada Fluminense and the state capital, Baixadas Litorâneas, and North Fluminense - still have a number of cases above expected.

RECIFE

Recife is in the state of Pernambuco, which has recorded 20,896 probable cases of dengue. Of the total, 1,434 have already been confirmed. The others are being investigated by the State Department of Health, which reported 31 severe cases and one death from the disease in the state. The incidence is 230 probable cases per 100 thousand inhabitants.With this, records are 564% higher when compared to the same period last year, when 2,993 cases were reported.

In Recife alone, there are 3,781 probable cases and 6 deaths under investigation. Among the confirmed cases, records total 3,575.

SALVADOR

The port of Salvador is located in Bahia. Of the 417 municipalities in the state, 269 are in a dengue epidemic. In total, 37 deaths from the disease have been confirmed.

In Salvador alone, there are 6,466 probable cases of dengue. The incidence is 267.4 cases per 100 thousand inhabitants. There is one death under investigation, according to the Ministry of Health.

PARANAGUÁ

The state of Paraná has already confirmed 140 deaths caused by dengue in the current epidemiological period, which began in July 2023. During this period, there are 219,045 confirmed cases, 34,226 more compared to the previous report, in addition to 451,280 notifications and 97,083 cases under investigation.

In the port cities of Paranaguá and Antonina, there are 1,732 and 2,243 confirmed cases, respectively. There are also 1,954 and 2,253 cases under investigation, respectively.

THE DISEASE

Dengue is a disease caused by a virus, transmitted by the bite of the Aedes aegypti mosquito. The characteristic symptoms are high fever (lasting up to 7 days), muscle and joint pain, headache and eye pain, loss of appetite, and red spots on the body.

Not everyone presents these symptoms. That is why it is important to seek health services. Dengue can present complications, including occurrence of minor bleeding, which do not constitute hemorrhagic dengue, the severe form of the disease.

It usually occurs when the person has had dengue before (the patient may or may not know). Confirmation of hemorrhagic dengue is done by clinical examination (performed by the doctor) and laboratory tests. Usually on the 5th day, the disease can progress to a state of severity. In this case, it is important to seek health services and follow all medical recommendations. In case of symptoms such as headache, behind the eyes, body and joint pain, high fever, malaise, and red spots on the body, it is necessary to seek medical attention as soon as possible.

HOW TO KNOW IF YOU ARE INFECTED

There are several types of tests for dengue identification - RT-PCR, NS1 antigen, and serology -, which should be performed according to the stage of the disease and the symptoms at the time of the test. The NS1 test searches for the viral antigen, and RT-PCR tests detect the virus's genetic material.

While NS1 should be done up to five days after the onset of symptoms, RT-PCR can be performed up to seven days after the onset of infection. Serology tests search for IgM and IgG antibodies, which are produced by the individual as a result of the infection, and should be performed from the sixth day of infection onwards. Tests for the detection of chikungunya are RT-PCR and serology.

PREVENTION

The main recommendations for the population are to avoid stagnant water in containers such as flowerpots, old tires, water drums, pools, bottles, and containers, among others; periodically clean areas such as trash cans, drains, animal drinking fountains, and other objects that can accumulate water; do not dump garbage improperly in inappropriate places.

INDIVIDUAL PROTECTION MEASURES TO PREVENT MOSQUITO BITES:

- Protect areas of the body that mosquitoes may bite by wearing long pants and long-sleeved shirtS
- Use insect repellents containing DEET (N,N-Diethyl-meta-toluamide), IR3535, or icaridin on exposed parts of the body (it can also be applied to clothing).
- Use mosquito nets over the bed, window screens, and, when possible, air conditioning.

THE MOSQUITO

Female Aedes aegypti mosquitoes lay eggs in stagnant water. These eggs need water and warmth to hatch. Thus, larvae emerge, which later turn into pupae and, finally, into mosquitoes.

Only female mosquitoes feed on human blood, which is necessary for the maturation of their eggs before being laid. However, if this female has bitten a person infected with dengue or chikungunya, she becomes a carrier of the viruses when she feeds on the blood of other individuals.

UNDERSTANDING DENGUE

The symptoms of dengue can vary from mild to severe and usually appear 4 to 10 days after being bitten by an infected mosquito. Some of the most common symptoms include:

- Sudden high fever
- Intense muscle pains, especially in the back and joints
- Severe headache, often located behind the eyes
- Fatigue and weakness
- Nausea and vomiting
- Skin rash
- Mild to severe abdominal pain
- Bleeding from mucous membranes, such as gums and nose
- Loss of apetite

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27 March 2024
Client Advisory – #10-24
U.S. Coast Guard Enhanced Examination Program April – June 2024 (Q2 2024)

Background:
This purpose of this Alert is to advise our compliance partners about a recently announced U.S. Coast Guard (USCG) Enhanced Examination Program (EEP). Such USCG EEPs are similar to Concentrated Inspection Campaigns (CICs) of other Port State Control regimes,

Overview:
Beginning on 1 April 2024 and continuing until 30 June 2024, USCG Port State Control (PSC) Officers have been directed to carry-out an enhanced exam to verify engine room fire safety.

The enhanced exam will take place during every USCG PSC A and PSC B exam conducted onboard cargo ships. The USCG PSC team is directed to:

1. Verify proper operation of at least one (1) fuel oil shutoff valve via remote operation. (SOLAS II-2/4.2.2.3.4)
2. Verify proper operation of control of stopping power ventilation for machinery spaces from outside the machinery space. (SOLAS II-2/5.2.1.2)
3. Verify presence and condition of protection against hot surfaces (i.e., lagging). (SOLAS II-2/26.1)

PSCOs are instructed to not test operation of fuel oil shutoff valves which would affect current operation of a ship's machinery, to ensure that engines are not starved of fuel. If available engine room fuel oil shutoff valves cannot be operationally tested without affecting engine or ship operations, PSCOs shall visually examine the material condition of each valve, but not instruct the ship's crew to carry out operational testing.

Actions:
Compliance partners are urged to share this advisory with fleet vessels. It is recommended to verify full functionality of remote and local operation of fuel oil shutoff valves, power ventilation stopping arrangements and to also ensure that engine room lagging of pipes and hot surfaces are clean, not contaminated with oil and provide adequate protection,

END OF ADVISORY