Making waves

IVSS AND TAMAR CAMPAIGN JUL 2025

ISLAND VIEW SHIPPING SERVICES

TAMAR SHIP MANAGEMENT

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1. MPA ADVISORY ON PSC DETENTIONS

We would like to bring to your attention the recent of PSC detentions of Singapore-registered ships (SRS) in Paris MOU (PMOU)

In June 2025, there were 4 (Four) SRS detentions in Paris MOU, namely Genoa, Italy (1 detention), Antwerpen, Belgium (1 detention), Rognan, Norway (1 Detention) and Rotterdam, Netherlands (1 Detention).

Kindly go through the attached 15 deficiencies, check each deficiency paying attention in detail and report to the Ship manager / Marine superintendent if there are any issues.

2. MANUAL HANDLING

Recently we had crew injury incidents due to improper manual handling of heavy objects (When lifting stores, spares etc.)

To prevent the recurrence of these incidents, we request the Master to comply with the following:

- Discuss SMS CHAPTER (HSE 4.11.4) – Manual handling with ship staff
- Conduct OJT on Manual Handling as per attached guidelines and maintain records of training in form 3.2.3
- Prepare risk assessment in CSM on manual handling

Reference shall be made to the publication – Code of safe working practices - Manual handling.

Prior to undertaking a manual handling task, consider the following four factors: ***Task, Individual, Load and Environment*** (known under the TILE acronym) to ensure a thorough evaluation of the task and its associated risk.

Each crew shall maintain situational awareness when handling heavy objects.

Also, other relevant factors (e.g., the age and health of the person, the frequency and duration of the work) should be considered. A full list of factors to be considered is given in COSWP Annex 10.1.

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:

- **FAMILIARIZATION OF CONTRACTOR ON BOARD**
- **PORT STATE CONTROL VOL 3**
- **RECOVERY OF PERSONS FROM WATER**

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 member 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 (support@karcoservices.com) for any queries regarding KARCO.

Records of training to be maintained in form 3.2.3

5. PRECAUTIONS FOR FISH FARMS IN LANSHAN, CHINA

The Master shall discuss the attached article issued by SKULD with all deck officers and ensure that applicable precautions are complied with if the vessel is calling Lanshan.

6. MEDITERRANEAN ECA

Please note that the Mediterranean Sea is a Sox ECA from 1 May 2025.

Resolution MEPC.361(79), will prohibit ships operating within the Mediterranean Sea ECA from using fuel oils with a Sulphur content exceeding 0.1% m/m

Please inform operators / charterers and plan for your bunkers accordingly well in time (if transiting this area).

Refer LR circular in SHEQ /MEMO / POLLUTION section which clearly specifies the coordinates for change over.

7. OJT– SOLAS TRAINING MANUAL

Please conduct On the job training on SOLAS TRAINING MANUAL and record details of training in Company form 3.2.3.

8. RIGHTSHIP SECTION 05 – POLLUTION PREVENTION AND CONTROL

RIGHTSHIP has commenced inspection of dry vessels using their checklist (RISQ) which is uploaded on the landing page of SHEQ.

There are 17 chapters in the RIGHTSHIP questionnaire.

The Company will send guidance for each section as part of the monthly campaign.

For this month, the Master shall go through the attached **"POLLUTION PREVENTION AND CONTROL"** checklist with all officers and ensure that the vessel is in compliance with all the items.

Please reply to the Marine Superintendent / Ship Manager with any queries or sections that your vessel does not fully comply with.

9. ENTRIES IN BALLAST WATER RECORD BOOK

The "final total quantity retained" or "final quantity retained", where required to be entered in the BWRB, refers to the final total quantity (in cubic meters) of ballast water on board in all tanks, and not the quantity in individual tanks.

Example 1: When ballast water is taken on board (ballasting operation) – at port

Date	Code (letter)	Item (number)	Record of operations/signature of officer in charge
02-JAN-2023	A	1	Start - 0900 hrs (UTC) (hhmm SMT) on 01-JAN-2023 at BE ANR (UN/LOCODE or port name)
		2	Completion - 0600 hrs (UTC) (hhmm SMT) on 02-JAN-2023 at BE ANR
		3	3P, 3S, 4P and 4S BW tanks
		4	Uptake 6800 m3. Final quantity retained: 7200 m3
		5	Yes. Ballasting as per BWMP for D-2 compliance
		6	Approved BWMS
			Signed———— Name ————Rank————

3	3P , 3S , 4P and 4S BW tanks
4	3P initial volume 100 m3 , uptake 1600m3 , final volume1700 m3
4	3S initial volume 100 m3 , uptake 1600m3 , final volume 1700 m3
4	4P initial volume 100 m3 , uptake 1800m3 , final volume 1900 m3
4	4S initial volume 100 m3 , uptake 1800m3 , final volume 1900 m3
4	Total uptake in 3P, 3S, 4P, 4S tanks 6800 m3 . Final quantity retained in all the ballast tanks onboard : 8900 m3

Please ensure that when ballast water is taken on board OR When ballast water is discharged into the port, Final quantity retained entered in the ballast water record book is the final total quantity (in cubic meters) of the ballast water on board in all tanks.

10. CLASS APPROVED FIRE RETARDANT PUTTY FOR SEALING CABLE PENETRATIONS

Please note that we have been receiving PSC deficiencies due to missing / damaged penetration for electrical cables on Bridge / accommodation space deck penetrations.

After shipyard delivery, many new installation or modifications have been done including but not limited to below

- LAN network cables
- ECDIS Installation and renewal
- CCTV Camera cables
- New equipment installation
- Additional Lighting

All cable penetration needs to be sealed with Class certified " Fire Retardant Putty".
Recently on one of our vessel, PSC inspector opened all cabinet doors on the Bridge, including underside of Radars / Gyro / Steering to check the condition and found damaged sealings and threatened to detain the vessel.
If any damaged or missing sealing is found, same can be easily repaired if there is correct sealing compound on board.

Please comply with the following and report to in charge Ship Manager

- C/E + ETO to check and confirm that all cable penetrations are sealed
- Check if vessel has on board "Fire Retardant Putty " and type approval certificate from Class (Any Class which is an IACS member).

The putty should be under custody of ship's ETO and included in his handover notes.

The Master should have a copy of the Type approval certificate in his certificate folder and include it in VCSA reported to office every month, with copy uploaded in Mesas Certificate module.

On the Type approval certificate, please ensure that location and custody of the putty is clearly handwritten for example " Located in Electrical Store on B deck, under custody of ETO"

☐

C2-51	Fall Arrestor		Certificate No				
C2-52	Fire Retardant Putty for Cable Penetration sealing	NA	NA				**Putty stored in " XXXX" location under custody of ETO**

If there is no putty on board, please raise new requisition for 20 kg of " Fire Retardant Putty with Class Certificate for A-60 Bulkhead " for supply at convenient port to keep as emergency spare on board and ensure the certificate is recorded.

Please find below

- sample photos of damaged / missing penetration
- fire retardant putty sample photo
- sample class certificate from CCS and ABS

中国船级社
CHINA CLASSIFICATION SOCIETY

证书编号/Certificate No.
SH19PTB00060

型式认可证书
CERTIFICATE OF TYPE APPROVAL

兹证明本证书所述制造厂具备按照下列标准的要求生产本证书所列产品的能力和条件。
This is to certify that the manufacturer stated in the certificate meets the requirements of the standards listed below and is available with the ability and conditions to produce the products described in the certificate.

制造厂/Manufacturer

太仓市海盛船舶配件有限公司
Taicang City Haisheng Marine Fitting Co., Ltd.

地址/Address

江苏省太仓市城厢镇太胜村
Taisheng Village, Chengxiang Town, Taicang City, Jiangsu Province

产品名称/Product

贯穿件、贯穿装置
Division Penetrations
电缆贯穿装置
Cable Transits

认可标准/Approval Standard

1. 1974 年国际海上人命安全公约及其修正案第II-2 章第3、9 条
Regulations 3 and 9 , Chapter II-2 of International Convention for the Safety of Life at Sea, 1974, as Amended.
2. IMO 2010年FTP规则第3部分
IMO 2010 FTP Code Part 3

用于/Intended for

国内航行海船/Domestic sea-going ship ，国际航行海船/International sea-going ship

产品明细/Product Description

电缆贯穿装置/Cable Transits (M001)

名称/Name	属性（值）/Value	单位/Unit
型号/Model	CHS/DL2007-A60H, CHS/DL2007-A60T	
电缆框/电缆筒包覆用隔热材料/Insulation Material Bundled for Cable Frame Or Barrel	陶瓷棉，不燃材料，标称密度：170 kg/m^3，标称厚度：20+20mm|Ceramic fibre, non-combustible material, normal density: 170 kg/m^3, normal thickness: 20+20mm	

证书有效期至/This Certificate is valid until **2023年04月09日/ Apr. 09,2023**

发证机构 中国船级社上海分社
Issued by CCS Shanghai Branch, 15

签发日期 2019年05月13日
Date May. 13,2019

CCS

UTN:P019-550279

№ 18699485

11. RIOTINTO - HSE SHARE

Please find attached the HSE notifications issued by RIO TINTO:

- RTM_2025_011 – Fatality Prevention – Incident with Breathing Air Compressor
- RTM_2025_012 – Maintenance and Visibility of draft marks

Kindly discuss these notifications with ship crew to bring awareness and take necessary actions.

Date: 26 June 2025

[For the attention of SRS operators, Designated Persons (DPA) and Master]

Dear Sir/Madam,

Increasing number of Singapore-Registered Ships (SRS) PSC Detentions in Paris MOU (PMOU)

We would like to bring to your attention to the recent of PSC detentions of Singapore-registered ships (SRS) in Paris MOU (PMOU)

2. In the month of June this year, there are 4 (Four) SRS detentions in Paris MOU, namely Genoa, Italy (1 detention), Antwerpen, Belgium (1 detention), Rognan, Norway (1 Detention) and Rotterdam, Netherlands (1 Detention).

Detainable Deficiencies

3. Following are the detainable deficiencies noted by the PSCO.

No.	Code	Deficiency	Action taken	ISM related
1	04109	Poor crew performance during fire drill (fire simulated in galley while ship at sea)	30 – Ground for detention	Yes
2	13102	Auxiliary engines no. 1 and no. 3 cannot be started remotely or locally without additional intervention of the crew members.	30 – Ground for detention	Yes
3	13102	3 of 4 Diesel generator Oil Mist detector and related auto shut not possible to test.	30 – Ground for detention	Yes
4	10114	VDR Certificate of Compliance missing.	30 – Ground for detention	-
5	18302	An inspection of crew cabins and sanitary facilities revealed insufficient cleanliness and maintenance. Additionally, not all public toilets are equipped with both hot and cold running water.	30 – Ground for detention	Yes
6	18324	An inspection of the galley, mess rooms, provision rooms, freezers and cold stores revealed a lack of cleanliness.	30 – Ground for detention	Yes
7	08108	Several important alarms found activated. (i.e. S/T seal oil, aft tank low level, ME air cooler C.W. inlet,	30 – Ground for detention	Yes

		No.1 HFO setl tk and all cargo bilge alarm)		
8	02101	Several watertight doors not closing properly	30 – Ground for detention	Yes
9	02107	Several sounding caps on aft deck found seized.	30 – Ground for detention	Yes
10	14616	Vessel found consuming high sulphur fuel > 0.5% for boiler and auxiliary engines and scrubber is in service during time of inspection. (i) Scrubber tower very dirty of heavy leakages, unhealthy atmosphere due to exhaust gas leakages and unsafe due to poor lighting. (ii) Monitor in engine room showing: SO2 – 0.3 and CO2 is 0.1, the ratio however valued zero. (iii) Monitoring unit in scrubber connected with sample hose from measuring probe found switched off and not able to switch on. (iv) Overboard wash water showing sensor flow alarm. (v) No power supply light on for CEMS and air dryer power on power supply unit in engine room. (vi) Crew not able to explain several components, unfamiliar with the system and not able to demonstrate compliance.	30 – Ground for detention	Yes
11	07108	Steering gear fire detector disconnected/broken. Water mist panel pump/valves blocked by oil drums. Foam liquid jerrycan leaking. 135 litre foam bottle in E/R stuck in place.	30 – Ground for detention	Yes
12	07114	Fuel isolation valve system of auxiliary engine portside inoperative.	30 – Ground for detention	Yes
13	13104	Self-priming unit of both fire/general service pump missing. Bilge suction valve of starboard bilge well seized in closed position.	30 – Ground for detention	Yes
14	14108	Testing of oily water separator by re-circulation (15 ppm alarm with overboard flow stop) could not be demonstrated	30 – Ground for detention	-

15	15150	Deficiencies marked ISM related are objective evidence of a serious failure or lack of effectiveness of implementation of the ISM Code.	30 – Ground for detention	-

Call for Action

4. Despite MPA's effort and engagements with SRS operators, SRS are still being detained by PSC in PMOU. These recent detentions are particularly concerning as they could have been prevented had the ISM Company, Master, and crew exercised due diligence and implemented necessary measures to ensure vessel compliance with relevant requirements.

5. We urge all SRS operator, DPA and Master to take into account of the information shared in order to provide additional guidance for the company and ship/master/chief engineer preparation for the PSC inspection, and ensure the following actions are taken:

i. Ship's planned maintenance system is to be regularly updated and monitored by senior officers/engineers and company.
ii. Scheduled inspection and maintenance of emergency and critical equipment carried out onboard by ship crew are to be monitored and to the satisfaction by senior officers/engineers.
iii. All ship crew shall be properly trained and competent to perform the emergency and critical equipment operational test.
iv. Emergency drills shall be conducted regularly to ensure all crew are aware of their roles and responsibilities, and implementation of emergency procedures.
v. MLC inspection shall be conducted on regular basis, emphasizing on MLC documentation, crew welfare and wellbeing.
vi. Master and Chief Engineer shall diligently conduct the inspection of ship such as the crew accommodation, engine room, various spaces, on deck and report any non-compliance to the company, and appropriately to MPA or the Classification Society.
vii. Pre-arrival inspection shall be diligently carried out prior arrival to each port.
viii. All defects shall be promptly reported to Flag Administration, Classification Society and relevant Port State authorities.

6. MPA will investigate all SRS PSC detentions and will take appropriate actions on the company, master and crew, as required, to uphold SRS quality status.

7. We seek your full cooperation on this matter and together we can work towards upholding quality SRS.

Thank you.

Yours faithfully,
The Team from Flag State Control
Maritime & Port Authority of Singapore

VESSEL: _____ DATE: _____

Details of training: MANUAL HANDLING (Reference COSWP / HSE MANUAL - 4.11.4)

- The term 'manual handling' is used to describe any operation that includes any transporting or supporting of a load, lifting, putting down, pushing, pulling, carrying or moving by hand or bodily force (Handling any weight more than 30 kg for men and more than 20 kg for women) example handling of stores, spares, provisions, drums , wire ropes, steel plates, pipes , machinery parts during maintenance etc. This guidance is generally concerned with preventing musculoskeletal injury.
- The Code of Safe Working Practices (COSWP) includes the illustration regarding safe weights for manual lifting in the Manual Handling section. It is to be reminded that these weights are not fixed and vary with the capability of the individual undertaking the task. The safe limits will be reduced if the action to be performed involves twisting or to be repeated over a short time.
- In all cases, a risk assessment should be prepared taking full account not only of the characteristics of the load and the physical effort required but also of the working environment (e.g., ship movement, confined space, high or low temperature, physical obstacles such as steps or gangways) and any other relevant factors (e.g., the age and health of the person, the frequency and duration of the work)
- As far as possible, avoid the need for any hazardous manual-handling operations, which may cause injury to seafarers, e.g., by re-organisation of the work, or automating or mechanising the operation.
- The ship staff should consider whether alternative means of doing the same job would reduce this risk. Proper use of mechanical means e.g., trolley, lifting appliances like cranes, chain blocks etc are to be considered as first preference.
- Assess the load and plan the lift – where is the load to be placed and consider whether you need any help with the load. Some loads require two or more people to lift safely.
- Look for sharp edges, protruding nails or splinters, surfaces that are greasy or otherwise difficult to grip and for any other features that may prove awkward or dangerous.
- Ensure that the deck or area over which the load is to be moved is free from obstructions, especially in narrow accesses, and is not slippery.
- Check the final stowage location to ensure that it is clear and suitable for the load.
- When two or more people are handling a load, it is preferable that they should be of similar stature. The actions of lifting, lowering, and carrying should, as far as possible, be carried out in unison to prevent strain and any tendency for either person to overbalance.
- Do not position yourself in the LINE OF FIRE
- Whenever possible, manual lifting and carrying should be organised in such a way that each person has some control over their own rate of work.
- Prior to undertaking a manual handling task, consider the following four factors: ***Task, Individual, Load and Environment*** (known under the **TILE** acronym) to ensure a thorough evaluation of the task and its associated risk.

TILE (TASK, INDIVIDUAL, LOAD AND ENVIRONMENT)

Factors	Questions
1. The Tasks	Do they involve: • Activity that is too strenuous? • Bolding or manipulating loads at distance from trunk? • Unsatisfactory or unstable bodily movement or posture, especially: - Twisting the trunk? - Stooping? - Reaching upward? • Excessive movement of loads, especially: - Excessive lifting or lowering distances? - Excessive carrying distances? • Risk of sudden movement of loads? • Frequent or prolonged physical effort, particularly affecting the spine? • Insufficient rest or recovery periods? • A rate of work imposed by a process? • *Climbing up or down stairs?* • *Handling while seated?* • *Use of special equipment?* • *Team handling?*
2. The Loads	Are they: • Heavy? • Bulky or unwieldy, or difficult to grasp? • Unstable or with contents that are likely to shift? • Likely, because of the contours and / or consistency, to injure workers, particularly if the individual collides with someone or something? • *Wet, slippery, very cold, or hot and, therefore, difficult to hold?* • *Sharp?* • *Potentially damaging / dangerous if dropped?*
3. The Working Environment	• Are there space constraints preventing the handling of loads at a safe height or with good posture? • Is there an uneven, slippery or unstable deck surface? • Are there variations in level of deck surfaces (eg: door sills) or work surfaces? • Are there extremes of temperature or humidity? • *Has account been taken of the sea state, wind speed and the unpredictable movement of the vessel?* • *Are there steps, stairs or ladders or self-closing doors to be negotiated?* • *Is the area adequately lit?* • *Is movement or posture hindered by personal protective equipment or by clothing?*

Factors	Questions
4. Individual Capability	Is the individual: • Physically unsuited to carry out the task, either because of the nature of the task, or because of a need to protect an individual from a danger that specifically affects them? - *ie: Does the job require unusual strength, height, etc?* - *Is there a hazard to those who might reasonably be considered unsuited to the task?* - *Does it pose a risk to those who are pregnant or have a health problem?* • Wearing unsuitable clothing, footwear, or other personal effects? • Inadequately experienced or trained? • Inadequately equipped?

Training conducted by Master:

Name: _____

Please file in OneDrive/ 3.2.3 Training folder

Overview

Job Description: Manual-handling of weights

		Initial					Residual				
ID Codes	Hazards	Risk Categories	Probability	Consequence	Risk	Control Measures	Probability	Consequence	Risk	Remarks	Confirmed
1	Heavy loads	Service Loss	3	0	0	1.Check the weight of the object to be handled manually 2.Refer diagram in COSWP for safe weights for manual handling 3.Assess number of the crew required to handle the weight considering weight, climbing up or down stairs, and space restriction 3.Consider the size, unstable and bulky nature of the weight 4.check object for sharp edges, nail and other hazards 5.check the gripping points 6. Don proper PPE 7. Use lifting appliances e.g. crane, chain block etc to minimize the manual handling. 8.Carry out toolbox meeting educating staff on weightlifting postures etc.	3	0	0	Injury	by: Sharma, Rajesh at: 3/19/2025
		Property	3	0	0		3	0	0		
		Personnel	3	0	0		3	0	0		
		Environment	3	0	0		3	0	0		
1	Strenuous activity	Property	4	0	0	1.Maintain proper posture when handling weights 2.Avoid twisting the body during handling the weight 3.Refer weights handling postures in the COSWP 4.Plan rest during handling of the weights as required	4	0	0	Injury	by: Sharma, Rajesh at: 3/19/2025
		Personnel	4	0	0		4	0	0		
		Service Loss	4	0	0		4	0	0		
		Environment	4	0	0		4	0	0		
3	Inadequate working environment	Service Loss	4	0	0	1.Be aware and mark the trip hazards in way of transferring the weight 2.Be aware of an uneven, slippery or unstable deck surface 3.Check weather forecast - sea state, wind speed and swell 4. Avoid handling of the weights during rolling/pitching 5. Ensure area adequately lit 6.Wear appropriate clothing pertaining to the environment 7. Extreme temperature or humidity to be avoided.	4	0	0	Injury	by: Sharma, Rajesh at: 3/19/2025
		Personnel	4	0	0		4	0	0		
		Environment	4	0	0		4	0	0		
		Property	4	0	0		4	0	0		
		Property	3	0	0		3	0	0		

Overview

		Initial					Residual				
ID Codes	Hazards	Risk Categories	Probability	Consequence	Risk	Control Measures	Probability	Consequence	Risk	Remarks	Confirmed
4	Inadequate individual capability	Personnel	3	0	0	1.Job to be assigned to experienced and physically fit crew members 2. Assign sufficient crew members depending upon the nature of manual handling 3.Encourage team lifting for heavier loads to distribute weight evenly.	3	0	0	Injury	by: Sharma, Rajesh at: 3/19/2025
		Environment	3	0	0		3	0	0		
		Service Loss	3	0	0		3	0	0		
5	Slips, Trips, and Falls	Service Loss	3	0	0	1. Check the working area for obstructions, space limitation 2.Be aware of an uneven, slippery or unstable deck surface 3. Be care full when transferring weight using staircase	3	0	0	Injury	by: Sharma, Rajesh at: 3/19/2025
		Personnel	3	0	0		3	0	0		
		Environment	3	0	0		3	0	0		
		Property	3	0	0		3	0	0		
6	Dropping of the weight	Service Loss	3	0	0	1.Ensure weight is properly gripped 2.Check for gripping points 3. Be aware of the working area e.g. cramped space, staircase for handling the heavy weights	3	0	0	Injury, damage	by: Sharma, Rajesh at: 3/19/2025
		Property	3	0	0		3	0	0		
		Personnel	3	0	0		3	0	0		
		Environment	3	0	0		3	0	0		

Risk Assessment verified and accepted (date): 19/03/2025

CHIEF OFFICER: _____

Precautions for fish farms in Lanshan, China

Navigation

Published: 20 May 2025

Image credit to: Leonid Sorokin / Shutterstock.com

Incident overview

Recently, a vessel allegedly damaged aquaculture farms while navigating towards Lanshan no.1 anchorage. Despite warnings from the VTS via VHF and plotted coordinates on the ECDIS by the 2/O, the vessel inadvertently entered the fish farm area. Our local correspondent has informed us that such incidents frequently occur in Lanshan Port, with six incidents recorded in both 2023 and 2024.

Investigation insights

The investigation revealed that the fish farm area lacked adequate special markings to warn passing vessels of its presence. The markings were not established in accordance with MSA requirements, and their absence posed additional navigational risks. Furthermore, the licenses for the fish farms had expired, raising concerns about their legitimacy and the potential discrepancies between the designated marking areas and the actual boundaries of the farms.

Furthermore, it was noted that the master and deck officers were unfamiliar with local hazards, as this was their first call to the port. Although the local agent provided information about fish farm locations, the bridge team did not fully comprehend the associated risks. The vessel altered its route, taking a shortcut towards the anchorage, which resulted in its unintended entry into the high-risk fish farm area.

This incident highlighted significant shortcomings in bridge team management and passage planning practices. The bridge team lacked familiarity with local hazards and failed to effectively communicate the risks related to fish farm locations. They did not adequately execute the passage plan, which should have included a thorough assessment of navigational hazards, clear and noticeable marks on the charts, and practicable Off-Track Margin (OTM) considerations. Additionally, a detailed briefing for all bridge team members was essential. This oversight ultimately led to the incident.

Recommendations

Further to previous Skuld advisories in 2013, the following actions are recommended:

- Prior to arrival, confirm with local agents about the current state of fish farm locations and recommended navigation routes to ensure safe passage. Obtain the latest information on farm boundaries and newly established fish farms. Integrate detailed fish farm locations into the passage plan and mark them on the charts.
- Conduct a thorough bridge team briefing for all members regarding the passage plan, navigation warnings, and the locations of fish farms along with their associated hazards. Emphasize the necessary precautions to be take during navigation to ensure the vessel is always operating in safe areas.
- Implement best practices in passage planning by incorporating the OTM into the plan. Keep the vessel within the OTM and defined navigation channel until it is confirmed that there are no farms in the area.
- Maintain a vigilant lookout while the vessel proceeds into port. Utilize various methods to ensure an effective lookout in the vicinity of the fish farm area. If necessary, increase bridge manning levels, especially during nighttime navigation.
- Utilize high-frequency X-band radar settings to detect smaller objects, such as buoys marking fish farms. Ensure that lookout personnel remain vigilant, especially in low visibility conditions and at nighttime; consider adding an additional lookout if necessary.
- Maintain clear communication with VTS and pilot stations for real-time updates on the vessel's movement and fish farm locations, ensuring the vessel navigates safely out of farm boundaries.
- Approach the port and anchorage in areas with known fish farm activity at a reduced speed, keeping anchors ready for immediate use if necessary.

Following these recommendations can significantly reduce the risk of incidents involving fish farms, ensuring safer navigation and protecting aquaculture operations.

Vessel: ***Date:***

<u>Details of training</u>: SOLAS TRAINING MANUAL– REFERENCE SOLAS/CH III- REG 35

- The SOLAS training manual should contain instructions and information in easily understood terms illustrated wherever possible on the life saving appliances provided in the ship and on the best methods of survival.
- SOLAS training manual is generally provided by the shipyard at the time of delivery of the vessel.
- The number of SOLAS training manual and their location shall be as per LSA plan (where indicated). The 3NO shall ensure that it is properly kept in the respective location and in good condition (No torn pages, loose sheets etc)
- Operating instructions /procedures/donning instructions /pictures (as per maker) for all appliances mentioned in LSA plan are to be incorporated in SOLAS training manual.
- 3NO shall check and update **ship specific information** for the following LSA in Solas training manual. (**Same make/model of actual LSA on board**)

1. Life jackets pictures and donning instructions (including oversize life jackets)
2. Life buoys and self-igniting lights pictures and instructions
3. Immersion suits pictures and donning instructions (including large size)
4. EPIRB / SART pictures and operating instructions
5. GMDSS WALKIE TALKIES pictures and operating instructions
6. Pyrotechnics pictures/operating instructions
7. Line throwing appliances pictures/operating instructions
8. Life rafts pictures and manual and davit launching instructions
9. Lifeboat and rescue boat launching instructions (same as laminated instructions posted near lifeboat)
10. MOB markers pictures and operating instructions
11. Latest Muster lists
12. Enclosed space familiarization program
13. Gas meters

- ***Whenever new equipment is received onboard OR when existing equipment is replaced for example if life raft is changed to Survitec or the model of SART/EPIRB/LIFEJACKETS / IMMERSION SUITS/ MOB MARKERS/PYROTECHNICS etc are changed, new instructions are to be inserted and obsolete ones to be removed***
- Check the index/table of contents and ensure all pages in the manual are available and properly arranged as per the index. (If properly indexed it will be very easy to locate the items in the manual. Use dividers to separate different sections)
- Improperly maintained SOLAS training manual can result in PSC deficiencies.
- The Master and safety officer shall crosscheck contents of the SOLAS training manual for ship specific information

Training conducted by Master:

Name:

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RioTinto

HSE Notification RTM/2025/011

Title: Fatality Prevention - Incident with Breathing Air Compressor

Date:	24/06/2025	Contact person:	Marine Safety & Vetting
Type of notification:	HSE Notification	Contact number (or email)	Vetting@riotinto.com
Category	Equipment	Type of Alert	Shared Learning from Incident

Distribution of notice to Rio Tinto Marine Associates

Details:

In continuation of Rio Tinto's ongoing commitment to promoting safety across the wider maritime industry, we are pleased to share our next Fatality Prevention Safety Awareness video focusing on the hazards associated with Breathing Air Compressors (BACs).

This audio-visual module (embedded herewith) highlights the serious risks posed by improper use, poor maintenance, or insufficient training related to BACs. These high-pressure systems are essential for filling air cylinders (Self Contained Breathing Apparatus - SCBAs) used in firefighting, entry into enclosed spaces, and various emergency operations. As such, strict adherence to prescribed procedures is critical for their safe and effective use.

Accidents involving BACs can result in severe injuries or even fatalities. By fostering a strong culture of safety and awareness, we can significantly reduce these risks, helping to safeguard crew wellbeing and maintain operational readiness during emergencies. We encourage you to share this video with your teams and utilise it as a valuable resource for safety discussions and training.

Additionally, a Link to the safety video is shared herewith:
https://www.youtube.com/watch?v=XSVvrs_1q-k

Next Steps:

Reflect on current processes for operating the breathing air compressor within the onboard safety management system to ensure safety.

For any feedback, please contact vetting@riotinto.com

HSE Notification RTM/2025/012

Title: Maintenance & Visibility of Draft Marks

Date:	30/06/2025	Contact person:	Marine Safety & Vetting
Type of notification:	HSE Notification	Contact number (or email)	Vetting@riotinto.com
Category	Human / Equipment / Procedure	Type of Alert	Shared learning from incidents

Distribution of notice to: Rio Tinto Marine Associates

Details:

Clear and visible draft marks are vital for safe and efficient vessel operations. Feedback from the terminal noted concerns over poor draft mark visibility on certain vessels, underscoring the importance of regular maintenance.

Draft marks ensure safe navigation, accurate cargo loading, and compliance with regulatory inspections. Any damage or fading can lead to delays, penalties, safety risks, and inaccurate cargo loading, which can disrupt operations and increase costs.

Best Practices for Draft Mark Maintenance

1. **Regular Inspection & Maintenance -** Draft marks should be inspected at every port call (especially when in ballast Condition) for signs of fading, hull staining, discolouration, damage, or marine growth. Prompt cleaning and repainting will maintain their visibility, ensuring smooth operations. The hull plating around the draft marks should also be painted in a contrasting colour to improve visibility and the readability of the draft marks. A good practice is to include photographs of draft marks during draft surveys, as this provides a good opportunity to review the need for refurbishing draft marks and act early to restore the markings.

2. **Coordination with Local Authorities -** Before refurbishing draft marks, vessel operators should liaise with local authorities to ensure compliance with port regulations and environmental guidelines regarding paint application within port limits.

3. **Correct Marking of Load Lines -** Vessels with multiple load lines should ensure that correct load line marks are accurately painted, clearly visible, and that proper documentation is maintained to confirm the correct markings are in place.

4. **Durable Paints and Protection -** Using high-durability, low-fade marine-grade paints and applying protective coatings around draft marks will help prevent wear from the harsh marine environment, reduce maintenance frequency, and ensure longer-lasting visibility.

5. **Safety Precautions and Compliance -** When performing maintenance or repairs on draft marks or load lines, ensure all safety precautions are strictly followed. This includes wearing appropriate Personal Protective Equipment (PPE), conducting Risk Assessments (RA) for tasks such as working overside, and obtaining any necessary permits for repainting or maintenance work, seeking support from local vendors who are expert in such tasks. Additionally, the office and local authorities should be notified, and, as applicable, permission should be sought before any repainting or maintenance work is undertaken. These measures help ensure safety and full regulatory compliance throughout the process.

Next Steps

By identifying and addressing gaps in monitoring draft marks within their preventive maintenance systems (PMS), companies can significantly reduce operational delays. The checks should be part of the cargo operation checklist, and any shortcomings should be addressed at the first opportunity rather than waiting for the condition to worsen.

For further information: https://www.ecfr.gov/current/title-46/chapter-I/subchapter-I/part-97/subpart-97.40/section-97.40-10 and https://www.imo.org/en/About/Conventions/Pages/International-Convention-on-Load-Lines.aspx

Please reach out to vetting@riotinto.com in case of any feedback.

Section 5: POLLUTION PREVENTION AND CONTROL

RISQ-NO	QUESTION	GUIDANCE	PIC/ REFERENCE / GUIDANCE	Verified by Master / CEO Comments
5.1	Is the Oil Record Book (Part 1) completed correctly (V)	**Guide to Inspection** The Flag Administration may permit the use of an electronic oil record book as an alternative substitute of the traditional paper ORB. However, Flag approval should be available on board and verified by the inspector. Non-automatic starting of discharge overboard via 15 ppm equipment, transfer, or disposal otherwise of bilge water which has accumulated in machinery spaces should be recorded in section D. Pumping of bilge water from engine-room bilge wells to a tank listed under item 3.3 in the Supplement to the IOPPC should be recorded in section D 15.3. Automatic starting of discharge overboard, transfer or disposal otherwise of bilge water which has accumulated in machinery spaces should be recorded in section E. The automatic starting systems will be activated by float switches in bilge wells or bilge holding tanks. This system is rarely installed in the machinery space of dry cargo vessels. The condition of oil filtering equipment and oil content meter or stopping device, including the alarm and automatic stopping devices when defective should be recorded in section F. A code 'I' entry should also be made indicating that the overboard valve was sealed shut due to non-working oil filtering equipment or oil content meter. On the date when the system is functional again, a new entry, using code F should be made. A code 'I' entry should also be made indicating that the overboard valve was unsealed since the operation of the oil filtering equipment or oil content meter has been restored. Accidental or other exceptional discharges of oil should be recorded in section G. Bunkering of fuel or bulk lubricating oil should be recorded in section H. Separate entries are required for each grade of fuel oil and lubricating oil respectively to ensure transparency. This entry is not required if lubricating oil are delivered on board in packaged form (55-gallon drum, etc.). Voluntary declaration of quantities retained in bilge water holding tanks (ref MEPC.1/Circ.640) should be record weekly in section I. (MEPC.1/Circ.736/Rev.2, Guidance for the Recording of Operations in the Oil Record Book Part I- Machinery Space Operations (All Ships), 2011) "When disposal of engine-room oil water or sludge to a shore reception facility has taken place, the entry in the Oil record Book shall be made accurately and in consistency with the shore reception facility receipt."	Ensure entries in ORB are prompt and accurate after each operation and signed by the officer Reference MEPC.1/Circ.736/Rev 2 – Guidance for the recording of operations in ORB Part 1 – Machinery space operations	☐ CE
5.2	Is an approved MARPOL Shipboard Oil Pollution Emergency Plan (SOPEP) available, and up to date and are ship's personnel familiar with their duties? (V)	**Guide to Inspection** Every ship other than an oil tanker of 400 gross tonnage and above shall carry on board a shipboard oil-pollution emergency plan approved by the Administration. Such a plan shall be prepared based on guidelines developed by the Organisation and written in the working language of the Master and officers. The plan shall consist at least of: > The procedure to be followed by the Master or other persons having charge of the ship to report an oil pollution incident > The list of authorities or persons to be contacted in the event of an oil pollution incident > A detailed description of the action to be taken immediately by persons on board to reduce or control the discharge of oil following the incident > The procedures and point of contact on the ship for coordinating shipboard action in combating the pollution with national and local authorities > Description of equipment, its location, a plan for deployment and specific crewmember duties for handling small spills, and > An up-to-date IMO Coastal Contact List. The SOPEP must be re-approved after a change of management. The list of national operational contact points is issued electronically on a quarterly basis on the 31 January, 30 April, 31 July and 31 October at www.imo.org.	Check if latest quarterly IMO coastal contact list is updated. Check if annual review of SOPEP is carried out. Update and file monthly clean up equipment inventory in sopep. Ensure port contact list for the port is posted in Bridge and ships office and also filed in SOPEP. Ensure ship interest contact list is updated.	☐ Master

Section 5: POLLUTION PREVENTION AND CONTROL

5.3	Are the ship's personnel aware of the requirements of MARPOL Annex V with respect to the disposal of operational waste and cargo residues from ships? (V)	**Guide to Inspection** Operational waste means all solid waste (including slurries) not covered by other Annexes that are collected on board during normal maintenance or operation of a ship or used for cargo stowage and handling. Operational waste also includes cleaning agents and additives contained in cargo holds and external wash water. Operational waste does not include grey water, bilge water, or other similar discharge essential to the operation of a ship, taking into account the guidelines developed by the Organisation. Cargo residues means the remnants of any cargo which are not covered by other Annexes and which remain on the deck or in holds following loading and unloading; including loading and unloading excess or spillage, whether in wet or dry condition or entrained in wash water; but does not include cargo dust remaining on the deck after sweeping or dust on the external surface of the ship. (MARPOL, 2017) The SKULD P&I club information paper "Guidance on disposal of cargo residues in line with MARPOL Annex V "provides further information.	Crew to familiarize with contents of Garbage management plan and garbage record book Carry out OJT on garbage management plan and record book as per SHEQ/ OJT Refer to garbage placards posted onboard	☐ CNO
5.4	Are the scupper plugs fitted and in a satisfactory condition, and are there suitable measures in place for draining water on deck when the vessel is involved in dry bulk cargo operations? (V)	**Guide to Inspection** Deck scuppers should be plugged during bunkering and cargo operations. Hydraulic system leaks associated with cargo hold hatch covers, cranes, pumps, and other deck machinery can often lead to oil spills on the deck of ships. Ship managers should establish procedures to ensure the deck containment 's integrity is maintained including implementing the proper use of drain valves where fitted and ensuring controlled drainage of accumulated water from the deck during cargo operations. CO and Duty Officer to ensure compliance with above with the proper plugging of the scuppers.	Check the condition of scupper plugs. Scuppers are to be effectively plugged during bunkering and during operation of deck hydraulic machinery (mooring winches/crane/hatch covers). Also scuppers to be plugged when loading/discharging cargo Scupper filters like oil absorbent pads shall be readily available for draining rainwater on deck when the vessel is involved in solid bulk cargo operations. Reference: DRY CARGO MANUAL, 15.0. Pollution Prevention	☐ CNO

Section 5: POLLUTION PREVENTION AND CONTROL

5.5	Is the vessel free from any visible bulkhead leakage? (V)	**Guide to Inspection** The examples of bulkheads are: > The engine room forward bulkhead at its intersection with the topside tank structure in the aftermost cargo hold. > The side shell plating of the cargo hold side structure. > Side shell plating in the foremost cargo hold. > The stool shelf plates of the transverse bulkheads in the cargo hold. > The transverse bulkheads at the topside tank connection, in the cargo hold. > The vertical corrugations of transverse bulkheads in the cargo hold. > The corrugated bulkheads at the intersection of the shredder plates in the cargo holds. > Any fuel tank bulkheads within the machinery space	Please check and advise if there is any leakage	☐ CNO / CE
5.6	Are the cargo hold bilge pumping systems and bilge arrangements appropriately set, in good order and tested? (V)	**Guide to Inspection** Bilge wells, including bilge covers, strum boxes; and bilge well valves, including non-return valves, should be in a clean and sound condition. Non-return valves must be checked to ensure they are fully operational. Overhaul of non-return valves at regular intervals should be incorporated into the planned maintenance system. Inspection and testing of these non-return valves should be incorporated in the pre-loading checks of the holds. The presence of previous cargo residues and/or scale around the valve's seat may prevent the correct operation of the non-return valve. Bilge lines should be blown back to confirm the effectiveness of the valves regularly. Bilge high-level alarms should be tested regularly. Records of testing of alarm systems should be retained on board. (Bulk Cargoes-Hold Preparation and Cleaning, 2011) When the cargo hold bilge system is not in use, all valves should be effectively shut and measures should in place to ensure that they remain shut i.e. visible signs.	Refer Forms 2.3.20 / 2.3. 21 / 2.3.25. Ensure completed forms are filed. Ensure spectacle flange is used for blanking bilge lines (CE) Ensure all bilge valves are shut when not in use (CE) Record date of last test of bilge alarm	☐ CNO
5.7	Is the sounding of cargo hold bilge, ballast tanks, chain lockers, pipe ducts and other void spaces regularly performed for accumulations of water, or alternative evidence of regular monitoring? (V)		Daily sounding to be taken and entries made in deck logbook	☐ CNO
5.8	Are suitable containment arrangements in place around the hydraulic components of deck machinery? (V)	**Guide to Inspection** The hydraulic component can include hatch cover rams and remote-control stand, cranes, winches, windlass, piping, and hoses.	Fabricate containment plates around hatch cover RAMS Ensure all trays are fitted with stainless steel drain plugs.	☐ CNO

			Ensure that plugs on all the save-all trays are always kept plugged. Ensure a chain is connected to each pluG. Ensure that the plug is properly fitted , the threads are in good condition , sealing effectively and plug is free to operate. Ensure that the threads are properly greased Ensure save-all tray is clean and empty and there are no debris like ropes , rags etc on the tray. Paint save-all trays if required. Ensure scuppers are plugged prior operation of hydraulic machinery. Deck watch will be maintained during operation of deck machinery and hydraulic components shall be checked regularly as part of watch keeping routine. Hydraulic ram and associated connections/flexible hoses shall be kept in good condition in accordance with the PMS.	

Section 5: POLLUTION PREVENTION AND CONTROL

5.9	Are the arrangements for detection and disposal of water from forecastle store and chain locker in good order, and are measures in place to prevent the accidental discharge of oil? (V)	**Guide to Inspection** Where there is a possibility of hydraulic or other oil accumulating in the forecastle space, and hand pumps or ejectors are fitted, pollution prevention notices should be posted and the overboard valves should be secured against accidental opening, but not padlocked unless the key is readily available in a sealed box. The sea valve may be left open while the vessel is at sea; however, a warning and notification placard shall be attached to the remote-control panels for the valve, and remote use of the valves shall be restricted to emergency situations only. The sea valve shall be kept closed while the vessel is within the port limits, at anchor, or alongside, and special warning signs shall be posted to prevent the sea valve from being accidentally opened.	Ensure forecastle store bilge well is dry and area round it is clean. Keep the overboard valve closed in port limits and at anchor. Tie the valve with rope to indicate it is closed Keep the overboard valve open at sea to pump out water if forepeak store if flooded accidentally Stencil " To be kept open at sea and kept closed in port limits and anchor" near the valve Stencil near bilge well "Check for oil content before discharge overboard" Stencil near the remote control panel " Restricted to emergency situations only" Check chain locker at regular intervals and pump out water as required	☐CNO

Section 5: POLLUTION PREVENTION AND CONTROL

<table>
<tr>
<td>5.10</td>
<td>Is the Ballast Water Treatment system in good order and were the Master and Officers familiar with the vessel's Ballast Water Management Plan, and were records available to demonstrate that ballast handling had been conducted in accordance with the plan? (V)</td>
<td>
Guide to Inspection
The Ballast Water Management Plan (BWMP) is the document that details the procedure for the discharge of ballast water in accordance with regulation D-1 (exchange), and/or regulation D-2 (treatment). Conducting ballast water discharge in accordance with the BWMP ensures compliance with regulations D-1 or D-2.

By September 2024, all ships must confirm conform to the D-2 standard.
All ships are required to carry:
> A ship specific BWMP
> A Ballast Water Record Book (BWRB)
> An International Ballast Water Management Certificate (IBWMC)

The BWMP is approved by the ship's flag state and should set out a particular and realistic set of measures to be followed by the crew. These should include the following procedures:
> Best practices are in place to ensure the BWMS is not disabled or malfunctioning due to mechanical or electrical faults that are easily preventable;
> Verify the next port of discharge and place into IMO or United States Coast Guard (USCG) mode accordingly;
> Ensure that all valve position are verified before the start of each ballast operation;
> All maintenance work is performed inline with the PMS;
> All consumables (reagents, disinfectants, chemicals, etc.) and critical spare parts are readily available; and
> Ensure that all troubleshooting and mitigation measures are followed as outlined in the original equipment manufacturer's instructions.

The ship-specific and crew familarisation program should cover:
> Maintenance of the system, including checklists and schedules for maintaining the system's optimal condition, including:
- Inspection, cleaning, and calibration; and
- Maintaining adequate spare parts on board, as well as active substances and neutralisers on board, if applicable.
> Troubleshooting and mitigation where best practices should be established for investigating and resolving common/ critical BWMS technical malfunctions that may arise;
> Record keeping; and
> The procedure for notifying the port state that they will receive ballast water discharge impacted by failure of malfunction of the BWMS.

For record keeping, the following actions requires a note to be made in the BWRB:
> When ballast water is taken onboard;
> When ballast water is discharged into the sea
> Whenever ballast water is exchanged into the sea
> Whenever ballast water is exchanged, circulated and treated for ballast water management purposes;
> Uptake or discharge of ballast water from/to a port-based or reception facility
> Accidental discharge/ingress or other exceptional uptake or discharge of ballast water;
> Failure and malfunction of the BWMS; and
> Ballast tank cleaning/flushing, removal and disposal of sediments

The duties of the officer in charge of ballast water operations must be specified in the ship's BWMP.
The officer in charge must fill in and sign every BMRB entry and the master should sign every full page.
Should the BWMS fail, the shipowner/manager should be contacted before bypassing the ballast water treatment system.
The ship will need to demonstrate that any bypass of the system will not be a risk to the environment and should only be used as a last resort.
(Engine Room Procedures Guide 2024)
</td>
<td>Ensure BWTS is fully operational

Ensure officers are familiar with operation of BWTS

Ensure maintenance as per maker is incorporated in PMS

Ballast Water Record Book entries are up to date.</td>
<td>☐ CE and CO</td>
</tr>
<tr>
<td>5.11</td>
<td>Is an approved Ballast Water and Sediment Management Plan provided and complied with? (V)</td>
<td>
Guide to Inspection
To show compliance with the requirements of the convention each ship shall have on board a valid certificate, a Ballast Water Management Plan and a Ballast Water Record Book.
</td>
<td>Ensure vessel has class approved BWMP and valid BWTS certificate

Ensure entries are made promptly in the record book after each operation</td>
<td>☐ CNO</td>
</tr>
</table>

Section 5: POLLUTION PREVENTION AND CONTROL

5.12	If ballast tanks are located adjacent to fuel oil tanks, or there is a possibility of contamination by hydraulic oil, are ballast tank contents being sampled to ensure there has been no contamination of the water by oil prior to discharge? (V)	**Guide to Inspection** There have been cases where fuel has leaked into ballast water tanks due to fractures, pitting or corrosion in the shared bulkhead between the tanks. This can lead to substantial financial losses and penalties if the contaminated ballast water is discharged at sea. Ballast tanks adjacent to bunker tanks, or those with bunker lines running through them, need to be monitored for potential leaks from nearby bunker tanks or bunker lines. It's crucial that ballast water, if it contains an oil sheen on the surface, is not discharged. Monitoring these ballast tanks may involve one of several options. These could include checking the quality of the water inside the ballast tanks by visually inspecting the surface, drawing samples from the tanks, or monitoring the atmosphere within the tanks by installing a gas sampling system.	CO, 2O, 3O HSE PROCEDURES MANUAL - 6.14. BALLAST WATER MANAGEMENT – section 11 - BALLAST WATER CHECK FOR OIL CONTAMINATION The water ballast tanks adjacent to the fuel oil tanks shall be checked for oil contamination prior to discharge and during voyage. The result shall be entered in the PORT/CARGO LOGBOOK prior discharge. The Chief officer shall ensure that the ballast tanks are sampled for oil contamination by using oil finding paste , using cloth attached to sounding tape , sense of smell etc. The vessel shall have sufficient oil / water finding paste onboard. Enter in the sounding record book on daily basis ''No oil smell or oil trace noticed during sounding''.	☐ Master

5.13	Are the emergency bilge suction and emergency overboard discharge valves in the engine room in good order and clearly identified with a notice warning against accidental opening and, is the area around the bilge injection suction bellmouth clear of debris and clean? (V)	**Guide to Inspection** The inspector shall review the test procedure of emergency suction valves. Emergency bilge discharge valves and other overboard discharge valves of a similar nature that are normally closed are sealed in the closed position with numbered seals. The SMS should implement a suitable method, either manual or electronic, for recording the changes in the process, including removal and replacement of numbered seal tags, testing of valves, maintenance, and other operational requirements. In accordance with MSC-MEPC.4/Circ.3, the sealing of valves of an emergency nature shall not be construed as a requirement for the valve to be blanked or physically locked. It shall be ensured that such valves always remain available for use in case of an emergency, and valve sealing may be accomplished through use of a breakable seal, electronic tracking, or similar method.	Refer Technical Procedure Manual/section 12. TESTING AND EXAMINATION OF EQUIPMENT Prepare test procedure of emergency suction valve and keep copy in the ECR. Ensure area around bilge injection suction bell mouth is clean and free of debris. Valves to be closed and sealed and seal number to be recorded in company form 3.2.7 The valves on these systems are to be overhauled at every routine docking, and exercised/operated every 6 (six) months Use of emergency bilge suction only in “Emergency Situation” and in compliance to Company procedures. Normally the valves must be always in the closed position and secured by seals. Periodically these need to be tested to	☐ CE

			ensure easy operation and should be lubricated at the same time. This must be recorded in PMS, ORB and MARPOL log book. A sign shall be posted close to the overboard valve stating ***"DO NOT OPERATE VALVE WITHOUT CHIEF ENGINEER OFFICER PERMISSION"***. - TECHNICAL PROCEDURE S MANUAL Sect 21.0 OILY WATER SEPERATOR	
5.14	Are arrangements for sludge collecting pumps free from any connection to a direct overboard discharge? (V)	**Guide to Inspection** Sludge collecting pumps are pumps capable of taking suction from any oil residue (sludge) producing equipment or tank, other than an oil residue (sludge) tank(s) and discharging only to oil residue (sludge) tank(s). (MEPC.1/Circ.642, Revised Guidelines for Systems for Handling Oily Wastes in Machinery Spaces of Ships Incorporating Guidance Notes for an Integrated Bilge Water Treatment System (IBTS), 2008)	Ensure sludge collecting pumps are free from any connection to a direct overboard discharge	☐ CE

Section 5: POLLUTION PREVENTION AND CONTROL

5.15	Are the Engine room bilge and sludge transfer and processing systems, in good operating condition and in compliance with MARPOL regulations?	**Guide to Inspection** **The oily water separator's arrangement for extracting samples from the 15 ppm Bilge Separator discharge line to the 15 ppm Bilge Alarm is designed to provide a truly representative sample of the effluent. This ensures both adequate pressure and flow.** **Certain designs incorporate a stop valve on the small-bore sampling line of the Oil Content Meter (OCM). If such a valve exists and can interrupt the flow of the representative fluid sample to the OCM it must either be sealed by Class in the open position or when closed (thereby stopping the flow to the OCM), halt the overboard discharge.** **Where the valve is not sealed Inspectors are required to witness such tests to verify the correct operation of the oily water separator in accordance with MEPC 107(49).** For vessels equipped with OWS filtering equipment complying with MEPC 107(49), officers and crew members must be thoroughly familiar with the operation and maintenance of the equipment, which includes the ability to retrieve historical data from the Oil Content Monitoring (OCM) in accordance with manufacturer's instructions and as indicated in MEPC 107 (49) and as paraphrased as follows: > The 15-ppm bilge alarm should record date, time and alarm status, and operating status of the 15-ppm bilge separator. > The recording device should also store data for at least eighteen months and should be able to display or print a protocol for official inspections as required. > In the event the 15-ppm bilge alarm is replaced, means should be provided to ensure the data recorded remains available on board for 18 months. > A certificate of type approval for a 15-ppm bilge alarm should be issued and retained on board. > The accuracy of 15 ppm bilge alarms approved to resolution MEPC.107 (49) is to be checked through the calibration and testing of the equipment, to be conducted by the manufacturer or by persons authorised by the manufacturer. This should be done at intervals not exceeding five years, or within the term specified in the manufacturer's instructions (whichever is shorter). The five-yearly testing does not need to be carried out at the time of the IOPP certificate renewal survey. (Resolution MEPC.107 (49), Revised Guidelines and Specifications for Pollution Prevention Equipment for Machinery Space Bilges of ships, 2003) At least two power pumps connected to the main bilge system shall be provided, one of which may be driven by the propulsion machinery. If the Administration is satisfied that the safety of the ship is not impaired, bilge pumping arrangements may be dispensed with in particular compartments. (SOLAS 74, 2020) According to the MEPC 107(49) Chapter 6.1.1, Installation Requirements, it states that "For future inspection purposes on board ship, a sampling point should be provided in a vertical section of the water effluent piping as close as is practicable to the 15ppm bilge separator outlet." The requirement to install the sampling point in a vertical section of the effluent pipe is to ensure that the sample is representative and homogeneous. If the sampling point is installed in a horizontal section of the effluent pipe, there is a risk that the oil is floating at the top and will not be part of the sample. Although it may be demonstrated that sampling from a horizontal section of the water effluent piping can also result in a representative sample, it doesn't comply with the explicit requirement in MEPC.107(49) to have a sampling point in a vertical section.	CE to ensure officers are aware with the operation and maintenance, 15PPM test procedure, retrieving procedure of past data of last 18 months Ensure 5 yearly calibration/accuracy certificate and Type approval certificate FOR 15 PPM BILGE ALARM is available.	☐ CE
5.16	Have specific warning signs been posted at the Oily Water Separator overboard discharge valve and effective sealing arrangements implemented to prevent accidental opening and is the system engineered in such a way that protection against unauthorized		A sign shall be posted close to the overboard valve stating ***"DO NOT OPERATE VALVE WITHOUT CHIEF ENGINEER PERMISSION***" TECHNICAL PROCEDURES MANUAL Sect 21.0 OILY WATER SEPERATOR	☐ CE

	access or accidental operation of the valves provided?		Overboard valves to be closed and sealed and seal number to be recorded in company form 3.2.7	
5.17	Is the steering compartment oily bilge water discharge arrangement satisfactory? (V)	**Guide to Inspection** Hydraulic or other oil may accumulate in the bilge wells of the steering compartment. Suitable arrangements should be provided for the disposal of it. If overboard valves are provided, they should be secured, and pollution prevention notices should be posted.	Ensure drainage area is clear of oil and debris	☐ CE
5.18	Has a declaration been provided by the shipper as to whether the cargo is harmful to the marine environment (HME)? (V)	**Guide to Inspection** Solid bulk cargoes shall be classified in accordance with the criteria specified in the 2012 Guidelines for the implementation of MARPOL Annex V MEPC. 219(63) and a declaration provided by the shipper as to whether or not they are harmful to the marine environment. Cargo residues classified as harmful to the marine environment (HME), which cannot be recovered using commonly available methods for unloading, cannot be discharged into the sea. This waste must be discharged to an onshore waste reception facility. MARPOL, 2017. (Resolution MEPC.219 (63), Guidelines for the Implementation of Marpol Annex V, 2012) (Resolution MEPC.278 (70) Amendments to the Annex of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the protocol of 1978 relating thereto, 2016)	HME information is provided in the Shipper's Declaration. HME cargo residue cannot be discharged into sea.	☐ Master

Section 5: POLLUTION PREVENTION AND CONTROL

5.19	Has a Garbage Management Plan been provided and is the Garbage Record Book (GRB) being correctly maintained? (V)	**Guide to Inspection** Every ship of 100 gross tonnage and above and every ship which is certified to carry 15 persons or more shall carry a garbage management plan which the crew shall follow. Every ship of 400 gross tonnage and above and every ship which is certified to carry 15 persons or more engaged in voyages to ports or offshore terminals under the jurisdiction of other Parties to the Convention and every fixed and floating platform engaged in exploration and exploitation of the seabed shall be provided with a Garbage Record Book Part 1. The Garbage Record Book (GRB) is divided into two parts: > Part I for all garbage other than cargo residues, applicable to all ships. > Part II for cargo residues only applicable to ships carrying solid bulk cargo. The GRB garbage categories should include e-waste1, and the category for cargo residues should be split into HME (harmful to the marine environment) and non-HME. The updated garbage category distribution is as follows: A. Plastics B. Food waste C. Domestic wastes D. Cooking oil E. Incinerator ashes F. Operational waste G. Animal carcasses H. Fishing gear I. E-waste J. Cargo residues (non-HME) K. Cargo residues (HME) The GRB discharge table should be updated, and the incineration start and stop date/time/position should be recorded. A new table is included for reporting exceptional discharge or loss of garbage under regulation. It also covers the reason for the discharge or loss, details thereof and precautions taken and should be updated where applicable. The GRB part II for solid bulk cargo residues includes entries for position or port, garbage category (J or K), amount discharged to sea or reception facilities, and start and stop positions for sea discharge. Along with the GRB, receipts obtained from receptions facilities should be kept on board for at least two years. Even though Annex V of MARPOL is mandatory for all ships, there are neither certification nor approval requirements. However, the following is required under MARPOL: > Placards posted on board noting the discharge requirements. > A Garbage Management Plan > A Garbage Record Book (MARPOL, 2017) (Resolution MEPC.220 (63), Guidelines for the Development of Garbage Management Plans, 2012) (Resolution MEPC.295 (71), Guidelines for the Implementation of MARPOL Annex V, 2017)	Ensure garbage management plan is onboard Ensure garbage record book part I and II are completed promptly after each operation Ensure garbage receipts from reception facilities are filed. Ensure garbage placards are posted	☐ CNO
5.20	Are the garbage storage and disposal facilities in a tidy and hygienic condition? (V)	**Guide to Inspection** Garbage collected throughout the ship should be delivered to designated processing or storage locations. Cleaning and disinfecting of garbage storage location are both preventative and remedial pest control methods that should be applied regularly in garbage storage areas. (GUIDELINES FOR THE IMPLEMENTATION OF MARPOL ANNEX V, 2017) 	Check the condition of the garbage receptacles in the storage area, these should be metallic, leak proof, properly marked. Please ensure METALLIC lids are properly fabricated and sealing is effective Each category shall be segregated and not mixed.	☐ CNO

Section 5: POLLUTION PREVENTION AND CONTROL

5.21	Has a ship-specific Energy Efficiency Management Plan been provided to the vessel?	**Guide to Inspection** To support ships' energy performance and efficiency objectives, the IMO has developed the SEEMP. This three-part operational measure establishes a cost-effective mechanism for improving ship energy efficiency over time. **SEEMP Part I:** Came into force on January 1, 2013. Required all ships over 400 GT making international voyages to have SEEMP documentation on-board. **SEEMP PART II** Came into effect on January 1, 2019, as part of the IMO Data Collection System (DCS). Required every ship over 5,000 GT to collect data and report on their fuel oil consumption. SEEMP Part II must be verified by the relevant flag administration, or any organization duly authorized by it. **SEEMP PART III** Came into effect on January 1, 2023, and concerns ships' Carbon Intensity Indicator (CII) and ratings. Requires ships over 5,000 GT (that fall into one of the categories listed in MARPOL Annex VI, regulation 26) to describe and support the ship's carbon intensity objectives, using data from the IMO DCS to assess their performance. Contains a ship's CII calculation methodology, the required CII values for the next three years, a three-year implementation plan, and self-evaluation and improvement procedures. Must be verified by the relevant flag administration or any organization duly authorized by it. The SEEMP Part III is designed to assist companies in achieving the required Carbon Intensity Indicator (CII). In relation to this annual rating, the SEEMP Part III is a mandatory, ship-specific document that outlines the plan to improve the CII, and consequently, the vessel's operational energy efficiency, over the next three years. The SEEMP Part III is a dynamic document that is subject to regular updates and revisions, reflecting changes in performance and required measures. It must be verified and kept on board the respective vessel from January 1, 2023, along with the Confirmation of Compliance (CoC) **Connection between DCS, CII and SEEMP Part III** Starting in 2024, the CII must be calculated and reported to the DCS verifier, along with the aggregated DCS data for the previous year, including any correction factors and voyage adjustments. The attained CII and the environmental rating (A to E) will be noted on the DCS Statement of Compliance (SoC), which is required to be kept on board for five years. In case of a D rating for three consecutive years or one E rating, the SEEMP Part III must be updated with a Corrective Action Plan and verified before the DCS SoC can be issued. The Corrective Action Plan should consist of an analysis of why the required CII was not achieved and include a revised implementation plan. (MEPC.346(78) 2022)	Ensure SEEMP Part I, II and III are available and filed in GDRIVE 9.9.4	☐ Master
5.22	Has the vessel been provided with an International Energy Efficiency Certificate? (M)	**Guide to Inspection** All ships of 400 gross tons and above engaged in international voyages will need to be issued with an International Energy Efficiency (IEE) Certificate. Owners and managers of ships engaged in international trade should ensure the IEE Certificate is issued and available after the first intermediate or renewal survey, whichever is the first, on or after 1 January 2013. (MARPOL, 2017)	Ensure certificate is onboard.	☐ Master
5.23	If the vessel has an Exhaust Gas Cleaning System (scrubber system), is it in good working order, are the engineers familiar with its safe operation, and have procedures been incorporated into the SMS	Not applicable	Not applicable	☐
5.24	Are the ballast pumping systems, their associated instruments, controls, valves,		Ensure in order. Report to ship manager if there are any	☐ CE

	and pipework in good order and is there recorded evidence of regular inspection? (V)		defects	
5.25	Is the ballast control panel, including the pressure gauges, draft gauges, remote control system for the ballast line and ballast valves in good order and maintained regularly?	**Guide to Inspection** The maintenance and testing of the ballast valves should be incorporated into the PMS. **Valve Remote Control System:** This refers to devices that utilize hydraulic oil pressure, pneumatic pressure, and/or electricity as power sources. These devices enable remote centralized control and position display of valves within the ship's piping systems, all from the control console. The controls and indicators of the Ballast System should be accurate and fully operational, including, where fitted: - Monitoring of draft, trim, and list - Control and monitoring of ballast pumps and associated plant - Control of ballast system valves and indication of their status - Information mimics/displays of the ballast system All pressure, temperature, and level sensors of the ballast system should be periodically verified for accuracy. **Incorrect Valve Position Indication:** The primary function of the hydraulically controlled valve is to enable remote operation. Ballast control panels for such valves are equipped with position indicators that display the current position of the valve (Open or Shut). An incorrect position displayed by the indicator can lead to confusion. This may cause the officer in charge of cargo operation to proceed with ballast operation without knowing the actual position of the valve. **Common Causes for Incorrect Valve Position Indication:** The following are the most common causes for incorrect position indication: - Defective flow meter - Defective pressure switch - Problems with the indicator panel - Slow valve movement Once the signal is given to operate a hydraulic valve from the ballast control panel, the valve should fully open or shut within a given time. A delay in the operating timing of the valve can be caused by: - Defective control valve operation - Clogged flow reducer - Clogged filters - Low oil pressure - Low oil temperature - Damaged valve actuator **Valve Opening/Closing Time:** This refers to the duration the actuator of the Valve Remote Control System takes to drive the valves into an open or closed position. It is recommended that all shipside valves and main valves be opened out and overhauled, repaired and surveyed at dry dock to ensure their correct operation and tightness. Operating time of the power operated ballast valves should be checked regularly, and the manufacturers guidance should be followed for optimum opening and closing times of the ballast valves.	Comply with PMS. (CE & CNO) Check operation of pressure gauge / Guage to indicate zero when there is no pressure and there is no error. (CE) Check condition of pressure gauge (transparent / readings legible) (CE) Check local indicator which indicates whether valve is open or shut and shows the current position of the valve (CO) Check if opening and closing times of valves are as per maker manual (CO) Check condition of remote control system (CE) Check/inspect for leaky safety valve, pipes, gauge connections, rectify as required (CO) Check/inspect pipe lines for	☐ CE / CNO

proper clamping etc

Functional check the operation of valves (10% of total nos.) by emergency procedures (by portable hand pump).

Check hydraulic pump units and tank oil level. Replenish if required

Check hydraulic pressure stability

Check operation of remote level monitoring sensors

5.26	Are bunker and ballast tank manholes maintained in good condition?	**Guide to Inspection** The gaskets and fastening bolts should be fitted in their original condition and maintained in good condition.	Ensure there are no missing bolts. Ensure packing is in good condition. Ensure all bolts are tightened. Ensure each manhole is marked to identify the name / Number of tank. Ensure manhole is marked “ENCLOSED SPACE”	☐ CE / CNO

5.27	Are the crew members familiar with the operation and maintenance of the sewage treatment plant, and is the sewage treatment plant, including its associated piping, discharge pumps, and air blowers, in good condition?	**Guide to Inspection** The sewage regulations prohibit the discharge of sewage into the sea, except when the ship has in operation an approved sewage treatment plant; is discharging comminuted (or macerated) and disinfected sewage at a distance of more than three nautical miles from the nearest land; or is discharging untreated sewage from a holding tank at a prescribed rate and at a distance of more than 12 nautical miles from the nearest land. The sewage regulations also include standards for discharge connections to facilitate the disposal of sewage from ship to shore. Engineer officers should be familiar with the operation and maintenance of the sewage treatment plant, following the manufacturer's guidelines. The effectiveness of the plant's aeration and air blowers can be verified by observing fine air bubbles in the sludge return line. The final stage of water treatment incorporates a chlorinator before the water is pumped overboard. The chlorinator could be either a tablet dosing type or a chemical injection type. In the tablet-based chlorinator, clean water directly contacts the chlorine tablets, forming a chlorine solution. The chlorinator is equipped with cylinders for tablet insertion. A sufficient number of tablets of adequate dimensions that can be inserted without breaking and as recommended by the manufacturer, should be used. In the chemical pump type, a predetermined quantity of Sodium Hypochlorite(NaOCl) is injected into the sterilisation/ chlorination tank using a diaphragm-type reciprocating pump.	CE to ensure sewage treatment plant is maintained as per PMS. Check PMS and advise if maintenance routines as per Maker are incorporated. Engineers shall be familiar with the operation of the equipment. The effectiveness of the plant's aeration and air blowers can be verified by observing fine air bubbles in the sludge return line. Check the chlorinator unit for effective operation	☐ CE