CONTENTS

OILY WATER SEPARATOR

1. PREAMBLE

This chapter is to be read in conjunction with the chapter 6.2 Control of Operational Discharges of Oil provided in HSE Procedures Manual.

Any discharge overboard of oily mixture, is only allowed through 15 PPM oily water separator and in compliance with statutory Marpol regulations and local requirements.
Ship staff shall ensure that the oily water separator piping has:

- not been altered from ships original drawings
- not physically by-passed
- not fitted with any connections to by-pass the unit
- sensing equipment is fully operational and has not been interfered with.

The Oily Water Separator shall not to be used without prior permission of Chief Engineer.

A schematic diagram and operation and test procedure of OWS shall be posted in the vicinity of OWS. Operating procedures including procedures to show past operational record on the screen (where applicable) shall be laminated and posted near the equipment.

All engineers must be capable of demonstrating to inspecting officials, operational procedures including showing past operational record for at least last 18 months on the screen (where applicable).

Except when the OWS is in operation, the Overboard Discharge Valve must be kept lashed and locked, with the key retained in the custody of the Master.

A sign shall be posted close to the overboard valve stating "DO NOT OPERATE VALVE WITHOUT CHIEF ENGINEER OFFICER PERMISSION".

OWS shall be maintained in a fully operational condition to the manufacturer's specifications. Any defects should be repaired without delay.

In the event of failure or malfunction of the OWS unit, or its associated piping, a report shall be sent to company with the following details:

- Nature of malfunction.
- Action taken aboard to ensure there is no pollution.
- Extent of the problem.
- Repair possibilities.
- Availability of required spares.
- Disposal arrangements or requirements.

All concerned shipboard personnel shall be instructed about the condition and the equipment and instructed it shall not be used until it is brought in order.

A risk assessment shall be conducted to ensure that all oily water from machinery spaces is retained on board (identify alternative storage locations if required) until a reception facility has been identified.

Master shall inform company if OWS is not operational, and company shall inform Flag state and other concerned authorities to obtain dispensation as required.

Company shall take all measures to rectify the equipment at the earliest possible opportunity.

The date and time when the failure occurred and the date and time when the system was made operational again, together with the reason for the failure should be recorded in the Oil Record Book, Part I.

As per MEPC CIRCULAR 107(49), the accuracy of the 15 ppm Bilge Alarms should be checked at IOPP Certificate renewal surveys according to the manufacturer instructions. Alternatively, the unit may be replaced by a calibrated 15 ppm Bilge Alarm. The calibration certificate for the 15 ppm Bilge Alarm, certifying date of last calibration check, should be retained onboard for inspection purposes. The accuracy checks can only be done by the manufacturer or persons authorized by the manufacturer.

2. MONITORING OF FIXTURES AND FITTINGS CONNECTED TO THE BILGE AND SLUDGE SYSTEMS

The company has a Zero tolerance for non-compliance with MARPOL by all personnel. To prevent unwanted scrutiny during inspections all vessels are to implement the following:

2.1. All Systems listed below to be secured against tampering

2.1.1. All overboard valve flanges to have one drilled bolt and sealed with a numbered company security seal (on the ship side flange). This includes the bilge/sludge shore connections on the main deck.

2.1.2. OWS suction flanges to the suctions.

2.1.3. Main emergency bilge suction valve wheel.

2.1.4. GS Pump bilge suction valve wheel.

2.1.5. Manholes on all bilge and sludge retention tanks.

2.1.6. There will be no cross over connections to other engine room systems (like ballast systems interconnected to the bilge system).

2.1.7. OWS power isolation switch box located on the Bridge.

NOTE: Security seal to be secured in such a way as to prevent valve wheel from being removed.

2.2. Method of Securing
(Only numbered securing seal provided by company to be used)

2.2.1. One bolt to be removed from each flange on the system (in the case of manholes two to be removed on opposing sides). Flanges should be given an identity number for easy reference.

2.2.2. The thread of the bolt, after the nut is to be drilled to allow the fitment of a security seal. The bolt should be long enough to allow for this.

2.2.3. If the flange has already been drilled as a means of securing against tampering this is acceptable but preferred method is the bolt hole being drilled.

2.2.4. Records of the seals fitted to the system shall be recorded on Form 3.2.7 and kept in Master's custody. This Form is to be signed by Master and Chief Engineer.

2.2.5. If a seal is removed for maintenance purposes or found broken a new seal should be fitted, and the new seal number must be updated on the Form. The reason for replacing the seal must be clearly explained.

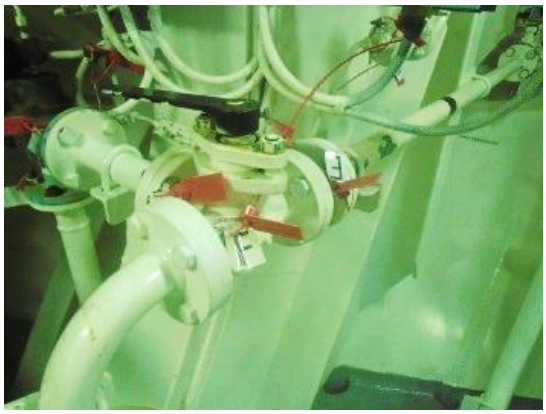
2.2.6. The overboard valve of the OWS Overboard valve need not be sealed with a numbered seal. It will need to be opened regularly when the OWS is used. The opening of this valve must be recorded under Code I in the Oil Record Book whenever an operation is carried out. The OWS overboard valve is fitted with a chain and padlock arrangement which inhibits the use of the valve. The key will be retained by the Master.

2.2.7. Only the Master shall authorise unsealing of the OWS power supply box situated on the bridge prior to operation or testing of the equipment.

2.2.8. The spare numbered seals are to be held under the authority of the Chief Engineer or Chief Navigating Officer.

2.2.9. The only valve that is allowed to be chained and locked is the OWS overboard valve. All other valves that are deemed to be part of emergency bilge system may only be secured with security seals.

3. EXAMPLES OF CORRECT WAY TO FIT THE SEALS



4. INSPECTION

Company recommends that Chief Engineer removes a section of the OWS overboard line as soon as practical but within a week of joining the vessel and inspect the pipe section for oil residues.

This inspection shall be reflected under Code I of the Oil Record Book Part I and on Form 3.2.7a (Details of seals on lines/valves/manholes).

Following guidelines shall be complied:

a. Ship Manager is to be informed prior removing the pipe.

b. Conduct Risk Assessment, check no water ingress from outside while slackening the bolts at the flange.

c. Sound all oil residue tanks & bilge holding tank prior to and after removal of pipe section as evidence that no oily water or sludge was discharged overboard illegally.

d. Record the soundings in Oil Record Book Part I. It is recommended that inspection is carried when weekly quantity of oil residues is due.

e. Master and CEO to witness the inspection.

Visiting Ship Managers will also inspect a pipeline section as part of a technical inspection.

5. FORMS

The following forms shall be completed and recorded onboard:

- Form 3.2.7 a – Details of seals on lines / valves/ manholes.
- Form 3.2.7 b – Details of flexible hoses in engine room.
- Form 3.2.7 c – Details of overboard valves in engine room.
- Form 3.2.7 d – Record of inspection by master.
- Form 3.2.7 e – Record of inspection by company representative.

6. US REGULATIONS

6.1. Introduction

US regulations require every ship above 26 feet in length to have a placard of at least 5 x 8 inches made of durable material fixed in a conspicuous place in each machinery space, or at the bilge and ballast pump station, with the following message, in a language understood by the crew:

Discharge of Oil Prohibited The Federal Water Pollution Control Act prohibits the discharge of oil or oily waste into or upon the navigable waters of the United States, or the waters of the contiguous zone, or which may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States, if such discharge causes a film or discoloration of the surface of the water or causes a sludge or emulsion beneath the surface of the water. Violators are subject to substantial civil penalties and/or criminal sanctions including fines and imprisonment.

By spilling oil that affects US waters, the offender risks criminal prosecution for spilling the pollutant and for failing to notify the government of the spill. Both individual violators and organisations may be penalised; individuals may even be imprisoned.

7. ROLE OF SENIOR MANAGEMENT ON BOARD THE SHIP

The Master, Chief Engineer and senior officers should:

- Promote awareness that any attempt to circumvent MARPOL requirements is totally unacceptable.
- Determine the most appropriate procedures to maintain equipment and systems in operational condition.
- Minimise and if possible, eliminate leakage through good housekeeping.
- Ensure that all routine shipboard and ISM safety meetings include time to discuss a specific agenda item on environmental matters.
- Compare waste output to volumes purchased.
- Ensure a copy of an up to date MARPOL Publication provided through REG4SHIPS is retained on board and crewmembers are made fully aware of the regulations.
- Ensure the vessel has a valid IOPP certificate at all times.
- Ensure the oily water separator installed on board is of an approved type and fully operational.
- Ensure that work instructions are posted near the equipment and all officers are aware of the operation of the equipment.
- Instruct users of OWS equipment and verify the standard achieved.
- Verify that maintenance schedules are being followed.
- Ensure that audits include operational tests and a reconciliation of records.
- Ensure that scheduled tank sounding logs are maintained and signed.
- Keep records of verification of correct operation through testing at sea.
- Ensure that on board spares are adequate to meet the demand.
- Create a culture where complacency in operation and maintenance standards is deemed to be unacceptable.

8. ROLE OF SENIOR MANAGEMENT ASHORE

Senior Management and Ship Managers should:

- Ensure that audits target the correct operation and maintenance of oily water separators.
- Ensure that audits are designed to investigate environmental compliance.

- Conduct unannounced inspections.
- Verify:
  - Routine maintenance.
  - Internal record keeping policies.
  - The accuracy of records by cross-referencing.
  - The progress of training.
  - That written procedures are available.
- Review maintenance records and procedures, log entries and handover notes.
- Verify that tests have been performed to ensure the continued correct operation of the OWS.
- Discuss findings and concerns with all levels of the engineering department.
- Establish and review formal policy documents and procedures on MARPOL compliance and training.
- Ensure ship staff test equipment under routine operational conditions.
- Each Ship Manager/ Marine Superintendent is to satisfy himself that all is in order onboard by regular review of sample records of all Marpol Log Books onboard which have been scanned by the vessel and forwarded to the Office.

9. OWS RECORD KEEPING

The Master, Chief Engineer and Senior officers in the engine department shall:

- Ensure that all entries in the tank sounding log, ORB (oil record book) are completed by the crew member who performed the task.
- Correctly maintain the oil record book (ORB) and the record of discharges of oily water separator effluent into the sea.
- Ensure that the OWS is properly secured after use, with new tag seal on overboard valve duly declared in the Oil Record book and the Marpol Log book has been updated.[1]
- Ensure that a new tag seal is fitted to the bridge power supply switch box after completed operation of the OWS and the Marpol Log book has been updated.[2]
- Ensure that the completed operation is signed by the officer or officers in charge of the operations concerned. It is to be verified by Chief Engineer and each completed page is signed by the Master.
- Ensure the status of OWS equipment is recorded in the handover notes of the Chief Engineer.
- Record the independent verification of the correct operation of the OWS.

[1] W 38 / 2018
[2] W 38 / 2018

- Raise awareness of the need for an open chain of command and accurate record keeping that can be substantiated with Port State Control.
- Ensure maintenance of OWS is carried out as per PMS and recorded.