

Shipping industry guidance on the use of

# Oily Water Separators

Ensuring compliance with **MARPOL**



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# Shipping industry guidance on the use of Oily Water Separators

## Ensuring compliance with MARPOL



The global shipping industry is committed to a zero tolerance approach to any non-compliance with the International Convention for the Prevention of Pollution from Ships (MARPOL). In particular, the industry is committed to strict adherence to International Maritime Organization (IMO) requirements concerning the use of *Oily Water Separators* and the monitoring and discharge of oil into the sea.

National maritime authorities with responsibility for the environmental protection of their coastlines quite properly adopt a similarly strict approach to the enforcement of MARPOL.



Companies and seafarers need to understand that even the most minor violations of MARPOL will be detected by the authorities. In addition to large fines amounting to literally millions of dollars, both company management and seafarers can be liable to criminal prosecution and imprisonment for any deliberate violation of MARPOL requirements or falsification of records.

The following industry guidelines are intended to highlight some of the issues concerning the use of oily water separators (OWS) and to remind company management, and shipboard personnel, how they can act to prevent MARPOL infringements.

Ship operators have ultimate responsibility for establishing a compliance culture within their companies, and it is important that every effort is made to ensure that seafarers do not engage in any illegal conduct in the mistaken belief that it will benefit their employer. Every seafarer should be made fully aware of the severe legal consequences, both for the company and the seafarers themselves, of even minor non-compliance with environmental rules.

At first glance, the following advice may appear to contain nothing new; for the vast majority of shipping companies, these are issues which should already be fully addressed by their Safety Management Systems, as required by the International Safety Management (ISM) Code. Nevertheless, it is strongly recommended that the following guidance is carefully analysed by company management, and that a firm message of zero tolerance of non-compliance with MARPOL is circulated as widely as possible amongst seagoing personnel.



## Ensuring compliance with MARPOL

Shipping companies should:

- Ensure that the ISM Safety Management System\* is used to good effect
- Conduct internal and external audits on environmental compliance and act upon the findings, in full compliance with the ISM Code
- Require accountability on environmental compliance issues within the shore-side and shipboard management team
- Minimise waste leakage through good housekeeping and maintenance
- Make the best use of the available technology
- Establish a realistic operating budget for environmental compliance
- Provide meaningful and targeted training in environmental awareness and MARPOL compliance
- Provide specific and targeted training in oily water separator (OWS) operation
- Recognise the value of open communication with the crew
- Verify compliance through appropriate physical inspection, operational tests and document analysis
- Reward compliance and address potential non-compliance.

## Technical approaches

### General

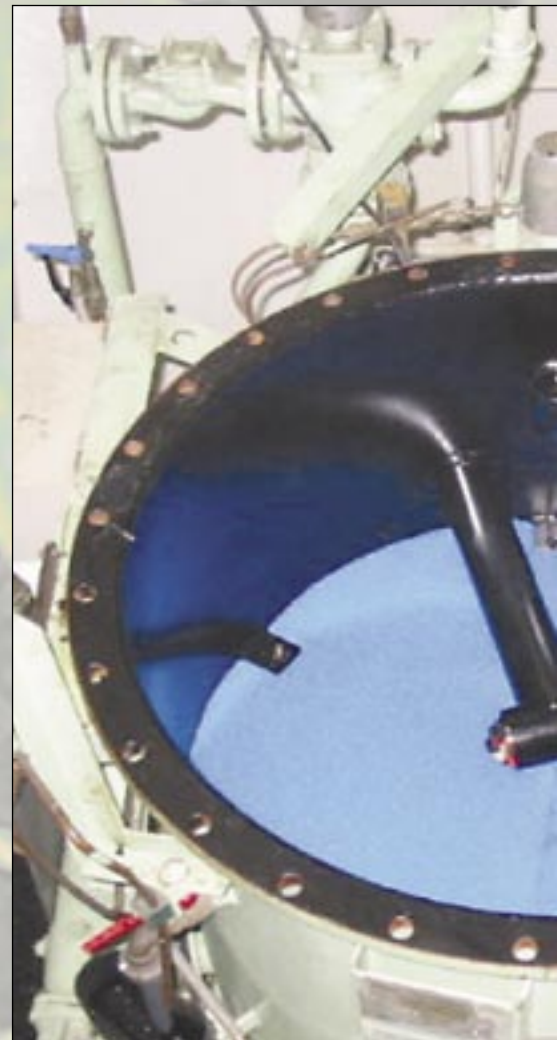
Shipping companies should consider:

- Installing the latest equipment, or an upgrade in capability, if existing equipment does not perform to requirements
- Upgrading related equipment to minimise the production of waste
- The advantages of the pre-processing of waste
- Increasing tank capacity for waste where possible
- Modifying systems to facilitate in-port testing of treatment systems
- Implementing the periodic testing of the oil discharge monitoring equipment
- The use of cleaning agents consistent with equipment capability.

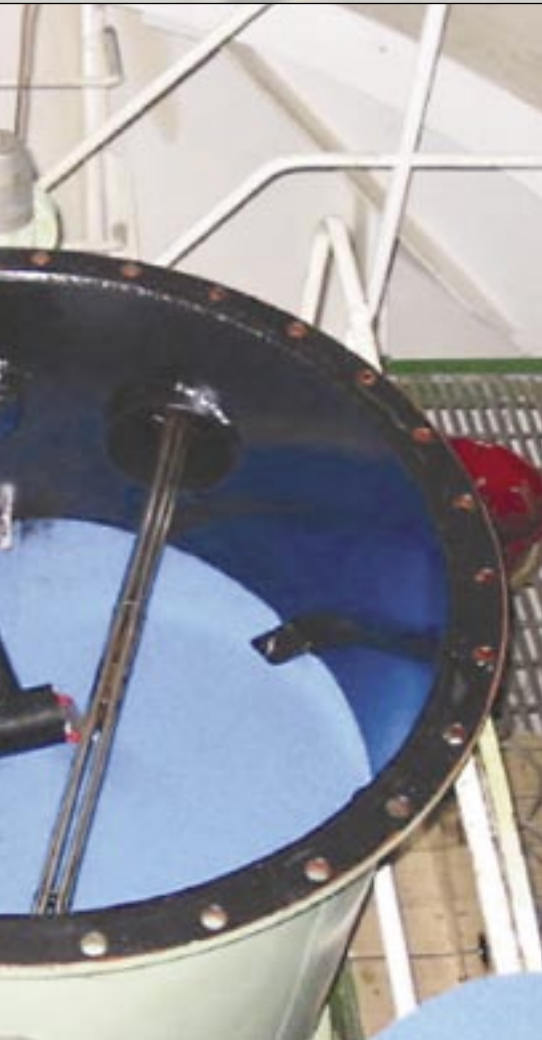
### Control devices

Shipping companies should consider:

- Fitting uniquely numbered environmental tags on flanges to prevent unauthorised by-passing
- Using seals on overboard valves and cross-connections
- Installing strategically placed placards concerning compliance with MARPOL on board ship
- Fitting surveillance cameras
- Using tamper resistant recording systems, alarms and printouts to verify equipment operation, valve position, flow, OWS ppm, incineration, ship's position etc



- Installing locked boxes or cages over monitoring equipment
- Fitting interlocks to prevent falsification of monitoring equipment inputs
- Using meters to record equipment running time for all engine room pumps.



## Management approaches

### Role of shore management

Shipping companies should:

- Assign environmental responsibility to senior management and ship superintendents, Masters and Chief Engineers on board ships
- Ensure adequacy of internal audits and implementation of corrective actions

- Review maintenance records and procedures, log entries and handover notes
- Monitor workloads imposed by the operation and maintenance of oily water separators, and assess the impact on crew priorities
- Analyse waste streams to determine content, volume, means and capacity for storage, and estimate realistically the cost of treatment and disposal
- Ensure that the operating budget for waste removal and spare parts is adequate
- Establish comprehensive check lists for inspections/audits
- Verify that tests have been performed to ensure the continued correct operation of oily water separators
- Discuss findings and concerns with all levels of the engineering department
- Explore the potential gains from the installation of new technology.

### Training

Shipping companies should:

- Ensure that training, whether shipboard, in-house or from an outside authority, is specific on relevant MARPOL requirements
- Consider supplementary training on MARPOL issues
- Document the training and assess its relevance
- Establish formal policy documents and procedures on MARPOL compliance and training.

### Audits and inspections

Shipping companies should:

- Ensure that audits target the correct operation and maintenance of oily water separators
- Ensure that audits are designed to investigate environmental compliance
- Use a comprehensive audit check list and try to investigate beyond the check list
- Conduct unannounced inspections
- Verify:
  - routine maintenance
  - internal record keeping policies
  - the accuracy of records by cross-referencing
  - the progress of training
  - that written policies are available
- Test equipment under routine operational conditions
- Interview crew members
- Produce written audit reports
- Conduct post-audit meetings
- Ensure senior management review the audit reports
- Track audit findings until corrective action is complete.



# The role of senior management on board the ship



## General

The Master, Chief Engineer and senior officers in the engine department should:

- Promote awareness that any attempt to circumvent MARPOL requirements is totally unacceptable
- Determine the most appropriate procedures to maintain equipment and systems
- Minimise and if possible eliminate leakage through good housekeeping
- Correctly maintain the oil record book (ORB) and the record of discharges of oily water separator effluent into the sea
- Ensure that all routine shipboard and ISM safety meetings include time to discuss a specific agenda item on environmental matters
- Use sign on/off check lists for duty personnel.

## Use of Oily Water Separators

The Master, Chief Engineer and senior officers in the engine department should:

- 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 for
- 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 unacceptable.

## Record keeping

The Master, Chief Engineer and senior officers in the engine department should:

- Ensure that all entries in the tank sounding log, ORB (oil record book†) and incinerator logs are completed by the crew member who performed the task
- Ensure that the ORB is examined and signed by the Chief Engineer and/or the Master
- Require signatures from those conducting overboard discharges and operational tests

- Ensure that ship familiarisation procedures verify that company environmental policy and operability of equipment are understood and followed
- Require the status of pollution prevention equipment to be recorded in the handover notes of the responsible engineer and the Chief Engineer
- Record the independent verification of the correct operation of the oil discharge monitoring equipment
- Raise awareness of the need for an open chain of command and accurate record keeping that can be substantiated with Port State Control.

## Tracking waste and maintenance

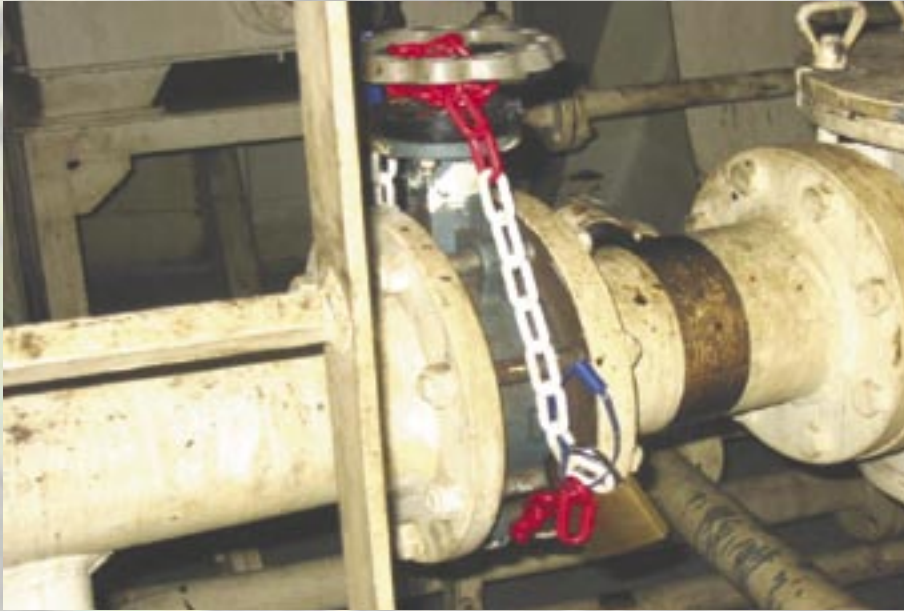
The Master, Chief Engineer and senior officers in the engine department should:

- Conduct analyses of waste disposal records
- Compare waste output to volumes purchased
- Compare waste disposal records with maintenance records
- Remove disincentives to off-loading waste, or purchasing additional material or parts related to safety and the environment.

The following publications may also be helpful:

\*Guidelines on the Application of the IMO International Safety Management (ISM) Code (published by ICS/ISF)

†Guide for Correct Entries in the Oil Record Book (published by Intertanko).



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