UK P&I CLUB

How to comply with MARPOL Annex I

Guidance to shipowners on how to avoid the improper discharge of oily water

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IS MANAGED
BY **THOMAS MILLER**

The legislative background

Annex I to MARPOL requires that machinery space bilge water be processed through a functioning Oily Water Separator (OWS), with an Oil Content Meter (OCM) sampling the effluent to ensure the oil concentration is 15 ppm or less prior to discharge overboard. MARPOL is implemented into United States law by the Act to Prevent Pollution from Ships (APPS) which governs the accidental and operational discharge of oil from ships within US jurisdictional waters.

Under APPS, it is a crime to bypass, or trick, the OWS or OCM, as well as to maintain an inaccurate Oil Record Book (ORB) when in US waters. If the OWS or OCM is bypassed, or tricked, and that discharge is not logged, or is logged wrongly, it will follow that the ORB is inaccurate, which is also a breach of APPS and can result in prosecution under APPS and/or other statutes. APPS also enables the US authorities to offer very substantial rewards to those who report alleged violations, often referred to as 'whistleblowers'. These awards can amount to as much as 50% of any criminal fine paid for APPS violations, in the discretion of the court.

Corporations can be found vicariously liable under APPS for the illegal acts of their employees if the acts are done during the scope of an employee's employment and, at least in part, for the benefit of the Company. There does not have to be an actual benefit, but rather something that did or could have benefited the Company, in the employee's subjective view.

Improper discharges of oily water, or the maintenance of an inaccurate ORB, continue to be major problems, often resulting in multi million dollar fines.

The following guidance outlines areas that owners may wish to concentrate on in their efforts to reduce the likelihood of such improper discharges:

● **Policy** ● **Training** ● **Procedures** ● **Equipment**

● **Maintenance** ● **Auditing** ● **Staff**

and emphasises the importance of ● **Record keeping** in all these areas.

POLICY

Company environmental statement

- Policy to be signed by CEO or MD and displayed on bridge, in engine control room, mess rooms, on all accommodation notice boards and by the OWS
- Clear and unequivocal, effective circulation, presented visually by written statement, film (DVD), prominent posters, CBT etc
- Compulsory viewing with positive and recorded acknowledgement by staff that it has been read and understood
- Zero tolerance of improper oily water residue discharge at sea clearly made
- Preference for shore side discharge, if available, clearly stated
- Record of acknowledgement/acceptance of policy to be kept

Advisory letters to staff (stating Company policy)

- General - to all staff and easily accessible on board
- Personal - to senior officers, fleet managers and superintendents
- Record of acknowledgement/acceptance of policy to be kept

ISM

- Clear and unequivocal statement of zero tolerance for any improper oil discharge overboard
- All crew to read and sign relevant part of ISM manual

Fleet memorandum and standing orders

- Clear and unequivocal statement of zero tolerance for any improper oil discharge overboard and in language understood by crew
- Ensure everyone who signs on reads, understands and signs the file containing the standing orders and memoranda files

Strict adherence to regulatory requirements

- MARPOL, ISM, regional response, SOPEP, OSRO, COFR
- Evidence of compliance to be recorded

Dealing with authorities

- Clear and unequivocal instructions to the crew to be forthright, honest and polite with boarding authorities
- All records and documentation should be in order and easily accessible
- Ensure if English is the working language of the ship, that all senior officers speak English. If English is not the working language, ensure there is a senior officer with adequate English there to translate technical terms
- A senior officer to always accompany inspector
- Record and retain records of any dealings with the authorities

Open complaints/reporting system

- Blame-free culture to be embraced
- System to be readily accessible and trusted by staff
- Investigation process for all allegations of non-compliance
- Consider rewarding reports of non-compliance
- Evidence of complaints being followed up/investigated and reported to senior management with corrective entries made in record books, as appropriate

Crewing issues/disputes

- Master/Chief engineer instructed to report all crewing issues/disputes to head office without delay, including ones that involve them
- Records of any disputes/issues must be kept

Compliance manager system in place (senior appointment)

- Responsibilities clearly defined
- Record of all actions taken

Reward compliance

- Clear policy of rewarding compliance
- Record of all actions taken

Disciplinary action non-compliance

- Clear policy of acting on non-compliance
- Referral of issues to Flag states for action:
  - Flag state – removal of endorsements (certificates)
  - Issuing authorities – suspension of certificates
- Consideration to be given to alerting other Flag states
- Record of all actions taken

Pollution prevention committee

- To include junior and senior personnel
- On board and ashore
- Regular meetings
- Time, date, agendas, minutes of meetings, records of who attended, who circulated to – circulation to include Designated Person Ashore

Funding

- Company commitment to environmental policy clearly shown to staff through adequate funding available in budgets
- Sludge and bilge water removal, spares, latest equipment etc
- Critical spares to be identified
- Budgets to have a clear section showing MARPOL requirements
- Records kept for proof of commitment

Chain of responsibility

- Who is responsible for what
- Clearly displayed and available to all staff

- Records kept of changes

Briefings/Debriefings

- Master/Chief engineer
- To include OWS issues if any
- Minutes of previous meetings to be available

- Records kept

TRAINING

Equipment manufacturer training

- Manufacturer's representatives to conduct periodic training:
  - in office
  - on ship
  - on manufacturer's premises
- Manufacturer's literature available and posted at critical areas

- Date, location, persons attending, type of equipment, certification details, etc

Environmental training courses (MARPOL)

- All ship's/shore technical staff – lectures, videos, CBT
  - external as well as internally led

- Date, location, course details, certification

Senior crew, fleet managers, superintendents

- Bespoke head-office training

- Date, location, course details, etc

Regular safety meetings

- In office and on board

- Date, location, agenda, minutes, action steps

Industry information

- System in place to effectively circulate current incident/advisory data to office and ship's personnel

- Documentation controlled, updated regularly

Company incident feedback loop

- To include:
  - near miss reporting
  - internal accident/incident investigation
  - circulation of 'Company' safety meeting minutes
  - circulation of 'ship' safety meeting minutes
- Times, dates, etc

On board training and professional development

- Making sure crew understand the job they have to do and that non-compliance will not be tolerated
- Details of training documented

PROCEDURES

Planned maintenance system

- In place and regularly audited by ship/shore
- Carry out OWS and OCM planned maintenance as required
- Time/funds made available to ensure above can be carried out efficiently
- Times, dates, action taken logged

OWS, OCM functionality

- Ensure OWS, OCM checked for functionality by regularly testing
- Time, date, authorising person

Testing and using system

- Test and use the system and 3-way valve and/or pump stop feature
- Record the testing and use in the ORB and the PMS

Spares replacement system

- Fast track for environmental equipment
- Regular checks
- Times, dates, action taken logged

- Retain spare part records

Safety management system

- Clear and easily understood
- Reviewed regularly and logged

Clear operational procedures

- Everybody knows what they are supposed to be doing
- Clear lines of responsibility
- Clear standing orders
- Standing orders reviewed regularly, signed and dated

Fault reporting system

- In place and regularly checked/audited by ship/shore
- Times, dates, details, action taken, signed by responsible person

Two person lock out or seal system for OWS overboard discharge valve

Two locks for OWS overboard discharge valve – C/E and Master

- Other systems that have been used to dispose of oily waste
  - sewage, clean water drain tank, boiler blow down valves
- Other systems that discharge overboard
  - ME cooling, AE cooling, air conditioning, ballast, hold bilge, air compressor, dump steam condenser, IG scrubber, reefer plant cooling
- Times, dates, details, seal numbers, etc - two signatures

Shore disposal

- Sludge and/or excess bilge water to be disposed of shoreside by approved authorities
- Separate stand-alone budget for discharges ashore
- Disposal records to be retained at back of ORB

Pre-survey vetting system

- Crew to conduct their own pre-survey
- Times, date, details

Pre-arrival (24 hours) vetting system

- Crew to conduct their own pre survey – especially pre USA arrival
- Times, date, details

Seal removal procedures

- Clear and understood by all covering:
  - overboard discharge line
  - direct bilge suction line
  - emergency bilge suction line
  - lock out seals
  - OCM seals
  - flange seals
- Time, date, authorising person

Master's inspection of ER (weekly)

- Supported by an *aide memoire* of what to look for
- Time, date, name, signature

Officer handover watch/voyage

- To include OWS systems
- To be documented

Daylight operations only, if possible

- If not possible, reasons why
- Time, date, details, location, quantity discharged

Overside monitoring during discharge

- Bridge team to monitor sea surface during OWS use
- Time, date, details, location, quantity discharged

Positive reporting systems

- Crew, when using OWS, record that OWS equipment is working correctly not just when it is not working
- Crew to attest prior to arrival in USA or other ports or on an agreed regular basis (in writing), that there have been no improper discharges and they know they can report improper

discharges without negative consequences from the Company

- Documented

Monitoring of residue quantities (office) comparison between volumes purchased and disposed waste

- Sludge generation
- Bilge water discharge
- Incineration
- Pumped ashore
- Pumped overboard through OWS
- Compare sounding logs with volumes recorded in the ORB
- Investigate and act on any discrepancies found

- Time, date, location, quantity, signature

Leak log

- Leaks recorded when found and action taken to minimise wastage

- Time, date, location, action taken, signature

ORB and other record keeping to be comprehensive, accurate and contemporaneous

- In accordance with IMO requirements MEPC 1/ Circ. 736/ Rev. 2
- Record keeping must be completed at time of action

EQUIPMENT

Manufacturer's operational manual available in language of crew

- Ensure that the OWS and OCM manufacturer's operators manual is up to date and corresponds to the equipment model and in a language understood by all crew members
- Is readily available

Clear operating instructions/diagrams

- Ensure clear operating instructions/diagrams are placed prominently beside OWS and in ECR

- Logged when put in position

Certification of equipment in order

- Ensure certification of equipment including calibration of OCM is up to date/current
- Retain on board and in readily accessible filing system

Equipment fit for purpose

- Can the equipment do what it is supposed to do
- Is latest equipment provided
- Are latest tamper proof recording systems being used
- Signed for at end/commencement of tour of duty - Chief engineer

Interlocks effective

Solenoid valves fully operational

- Regularly checked
- Time, date, authorising person

Alarms operational

- Regularly checked
- Time, date, authorising person

Valves clearly marked

- Regularly checked
- Time, date, authorising person

Adequate spares

- Especially filters – Class requirement (minimum)
- Time, date, authorising person

CCTV in ER

- System for retaining recordings
- Details of deletion of records logged

All diagrams of OWS system attached to ORB

- All valves, flanges,seal positions correctly identified and labeled
- All diagrams Class approved
- All flanges on seaboard side of OWS to be capable of being sealed
- Diagrams attached to ORB and updated as necessary

Secure OWS from being tampered with by unauthorised persons

- Install locked cage over OWS components
- Record dates, times cage unlocked and by whom

Equipment inventory

- Ensure all portable pumps/hoses are tagged with unique serial numbers and placed in a secure area controlled by Chief engineer and Master
- When removed for use, serial numbers to be logged together with intended use

OWS/Purifiers/Incinerators/Pump

- Ensure use of equipment is monitored and hours used recorded
- Time, date, location, hours in use logged

Inoperative equipment

- Any problems to be reported to Port and Flag state prior to arrival next port
- Details of failed equipment to be logged in PMS and ORB, dates, times authorities notified also to be logged

MAINTENANCE

Regular bilge/sludge tank cleaning

- 6 months or maximum every drydock
- Equipment to be tested after calibration
- Consideration to be given to bringing in Class to witness testing (occasional)
- Time, date, authorising person

Regular OCM calibration (in accordance with manufacturer's instructions)

- Oil content monitor
- Photographic evidence to be taken and recorded
- Time, date, authorising person

Regular ODMCS calibration (in accordance with manufacturer's instructions)

- Oil discharge monitoring and control system
- Time, date, authorising person

Regular renewal of mechanical seals for pumps

- Time, date, authorising person

Regular cleaning of OWS (6 months)

- Opened and cleaned as per PMS
- Time, date, authorising person

All pump and line filters, in addition to OWS filters, cleaned (monthly)

- Time, date, authorising person

Cleaning of overboard discharge pipes

- To avoid oil build up in OWS to overboard line
- Procedure to be cleared with Class and Flag
- Time, date, authorising person

AUDITING

Self audit

- Findings to be available to Designated Person Ashore/ Compliance manager on completion
- Time, date, authorising person

Random audit of ship

- Findings to be available to Designated Person Ashore/

Compliance manager on completion

- Time, date, authorising person

Random audit of technical managers office

- Findings to be available to Designated Person Ashore/ Compliance manager
- Time, date, location, authorising person

Superintendent visits

- 2 times a year + 1 passage to monitor operation
- Time, date, name, deficiencies if found

Standard minimum checklist

- For superintendents to ensure a minimum standard, content reviewed regularly
- One-on-one discussions with crewmembers regarding operations and any concerns
- Generate reports of each visit to ships beyond a simple checklist
- Verify: routine maintenance, internal record keeping, accuracy of records by cross referencing, training progress

System in place to ensure audit deficiencies corrected

- Time, date, name, signature

Senior management to review all audit reports

- Time, date, name, signature

STAFF

Comprehensive sea/shore employment procedures

- Procedures in place to ensure right person for the job is employed
  - CVs checked
  - Interviews conducted

- References taken up

- Records kept

Senior staff vetted in detail

- By experienced staff

- Time, date, name of person vetting

New staff familiarisation

- Ensure there is a program in place to familiarise new staff with Company procedures etc

- Evidence of familiarisation procedure completed, understood, recorded and signed

Regular appraisals

- To include environmental and other compliance

- Time, date, signature of both involved parties

Third party crewing managers

- Audit system in place to ensure managers conducting adequate vetting of crews

- Audit records kept

For further information please contact:
Loss Prevention Department, Thomas Miller P&I (Europe) Ltd
Tel: +44 20 7204 2307. Fax +44 20 7283 6517
Email: karl.lumbers@thomasmiller.com