



# Standard Bulletin

December 2007



BY BRIAN GLOVER,  
DIRECTOR OF CLAIMS  
+44 (0)20 7522 7417  
brian.glover@ctcplc.com

## MARPOL compliance – a management solution

### In this special edition of the Standard Bulletin we:

- Explore the nature of the illegal practices that have attracted huge fines
- Offer advice as to what can be done by ship operators to develop environmental waste management systems for their ships
- Explain that there is no Club cover unless the Board in its discretion is satisfied that the member took all reasonable steps

### MARPOL – a multi-million dollar problem

Any legislation that can result in multi-million dollar fines, time-consuming court-ordered environmental compliance plans and extensive jail time for crew members deserves to be taken seriously. The zero-tolerance approach taken to the enforcement of the MARPOL Convention in the US and in an increasing number of European countries, such as France, has resulted in unprecedented levels of fines imposed on ship operators in the last ten years. In the US, over \$133m in criminal fines have been imposed since 1998 and the tariff applied to individual breaches of MARPOL continues to rise.

This trend is by no means confined to the US and is likely to become an increasingly worldwide phenomenon but, to date, no other country has proved as zealous as the US in tackling the problem of accidental and operational pollution from ships.

### It is therefore logical to examine the US experience in search of solutions to the problem.

Much has been written about the aggressive and unwarranted attitude of the US authorities and it is indeed true that the tactics employed by the US Coast Guard during the initial investigation phase and the subsequent Grand Jury interrogation procedures appear arbitrary and oppressive, illustrating the increasing tendency towards the criminalisation of seafarers and an appetite for revenue generation through huge fines imposed predominantly on foreign flag ships. But that is only part of the story.

The fact remains that these prosecutions and breathtaking fines would not be possible unless engineers persisted in bypassing the oily water separator (OWS), dumping sludge overboard and falsifying the oil record book. Most prosecutions are based upon physical evidence in the form of pipes and hoses, confessions or testimony of engineers or circumstantial evidence gleaned from oil record books. In some cases, so called 'whistleblowers', who stand to gain financially from a successful prosecution, alert the authorities to what is going on onboard.

### In This Issue

- MARPOL - A MULTI-MILLION DOLLAR PROBLEM
- DISCRETIONARY CLUB COVER
- HISTORY OF MARPOL
- ENFORCEMENT OF MARPOL OVER THE PAST TEN YEARS
- ENVIRONMENTAL COMPLIANCE PLAN
- MANAGEMENT OBJECTIVES

The Standard Steamship  
Owners' Protection  
& Indemnity Association  
(Bermuda) Limited

The Standard Steamship  
Owners' Protection  
& Indemnity Association  
(Europe) Limited

The Standard Steamship  
Owners' Protection  
& Indemnity Association  
(Asia) Limited

Standard Bulletin is published by  
the Managers' London Agents:

Charles Taylor & Co. Limited  
International House  
1 St. Katharine's Way  
London, E1W 1UT  
England

Telephone: +44 (0) 20 7488 3494  
Fax: +44 (0) 20 7481 9545  
Emergency mobile:  
+44 (0) 7932 113573  
E-mail: p&i.london@ctcplc.com

www.standard-club.com

Please send any comments  
to the Editor –  
John.Croucher@ctcplc.com  
Telephone: +44 (0) 20 7522 7566



OILY WATER SEPARATOR

## Club Cover

CONTINUED FROM COVER

Whatever the source of evidence, it is obvious that these illegal practices continue to exist and are fairly widespread in the shipping industry, implicating many household names as well as more marginal operators. The time has therefore come to address the issue of MARPOL compliance and waste management systems in a pragmatic and objective way. This problem will not go away, and the US and other port state authorities will not back down from their enforcement programme. They will continue to conduct aerial surveillance enhanced by satellites and detailed inspections in port, using sophisticated forensic techniques, and the level of fines will continue to increase until it is felt that the shipping industry is getting its house in order. The high priority assigned to all matters relating to the environment has a momentum that cannot be resisted, and it is therefore incumbent upon ship operators, particularly those trading to the US, to embrace a new culture of management designed to ensure compliance with all aspects of MARPOL and to focus on waste minimisation practices that will reduce the conditions that may lead to non-compliance.



OILY WATER SEPARATOR OVERBOARD LINE

### Discretionary Club Cover


There is no automatic Club cover for fines imposed on members or their crew for breaches of MARPOL or any associated activities.

Members have the burden of proving that they took all reasonable steps to avoid the events giving rise to the fines, and the Board of the Club has a discretion in relation to any reimbursement.

In exercising that discretion, the Board is entitled to take into consideration all relevant factors, including the well publicised zero-tolerance attitude of the authorities to such matters and the degree of proactive management supervision that is required by ship operators to ensure environmental compliance onboard their ships.

**US\$250,000 FINE  
10 YEARS IN JAIL**

**If YOU attempt to conceal a  
MARPOL violation or  
discharge.**

The Standard 

## History of MARPOL

### The Convention

Given the importance of MARPOL to the protection of the marine environment, it is surprising how long it took to come into force and thereafter to be rigorously enforced by those countries that have adopted it. The original MARPOL Convention (International Convention for the Prevention of Marine Pollution from Ships) was signed in 1973 but did not come into force until 2 October 1983, by which time the 1978 Protocol had been added. As at 31 December 2005, 136 countries representing 98% of the world's shipping tonnage were party to the Convention.



THE WRECK OF THE TORREY CANYON BURNS OFF CORNWALL

MARPOL contains regulations aimed at preventing and minimising both accidental and operational pollution from ships. It was one of a number of initiatives taken as a result of worldwide concern over oil and other pollution resulting from incidents such as the grounding of the tanker *Torrey Canyon* in 1967, in the English Channel. This was the biggest oil pollution incident ever recorded at that time, involving 120,000 tonnes of crude oil. It raised questions about the measures then in place to prevent oil pollution from ships but also exposed deficiencies in the existing system for providing compensation following accidents at sea. The international conference that adopted the International Convention for the Prevention of Pollution from Ships (MARPOL) realised however that accidental pollution, although spectacular, is by no means the only problem. If anything, incidents of operational pollution pose a greater threat to the marine environment.

The MARPOL Convention contains detailed regulations designed to avoid pollution by oil or any other substance. The Convention is divided into six annexes dealing with the prevention of pollution by oil, noxious liquid substances in bulk, harmful substances carried by sea in packaged form, sewage, garbage and air pollution. These annexes came into force at different times through a process of ratification, acceptance, or accession by individual states. The regulations contain detailed provisions relating to surveys and certification; the circumstances in which specified substances may be discharged in the sea or atmosphere in a controlled manner; specifications for holding tanks, piping and waste management equipment (particularly the oil-filtering equipment); procedures for any operations onboard posing a threat of pollution; and the accurate recording of such practices in the relevant record books.

These provisions of MARPOL are enforced by the government under whose authority the ship is operating or, alternatively, under the law of the jurisdiction in which the alleged offence takes place. Each contracting state is therefore responsible for the legislative implementation of MARPOL into its domestic law. In countries such as the US, this means that MARPOL is embedded in legislation together with a plethora of other environmental laws and criminal offences, particularly those relating to the falsification of public documents.

### New environmental agenda

The political landscape has changed considerably in relation to environmental matters since MARPOL was initially adopted in 1983.

Ship operators are under increasing scrutiny as regards the environmental consequences of their operations such as dumping garbage and sewage at sea as well as oil pollution. The latest annex to MARPOL concerning air emissions promises to pose serious challenges in relation to fuel oil quality and onboard incineration.

The MARPOL Convention contains provisions for co-operation between contracting states to ensure compliance. This is beginning to happen with a greater exchange of information and uniformity of approach as illustrated by the Paris and Tokyo memorandums of understanding, which deal with inspection protocols in relation to oil pollution deficiencies.



## Enforcement of MARPOL over the past ten years

### Unprecedented fines

During the past ten years, the US authorities - in the form of the Coast Guard, Department of Justice (DoJ) and other federal and state authorities - have waged a war against ships trading to the US that are felt to flout MARPOL regulations, particularly in relation to the illegal discharge of oily bilge water and sludge. Multi-million dollar fines have been imposed in many of these cases, and although the US sentencing guidelines are not mandatory, they do serve as a point of reference for prosecutors and courts alike. A tariff has emerged based upon the nature of the offence, the extent of any mitigating circumstances, the level of co-operation exhibited by crew members and the ship operator to the investigation process and the size of the company involved.

### Illegal practices

The illegal practices that have been the subject of these substantial penalties revolve around, but are not confined to, the operation of the oily water separator. In some cases, it is alleged that the oily water separator is bypassed by the use of so-called 'magic pipes' or 'blanked'; i.e. suppressing the alarm system. Both of these practices allow for the discharge of oily bilge waste that may contain in excess of 15 ppm of oil which is the maximum allowed for discharge at sea under MARPOL. The direct overboard discharge of oily sludge from filters and purifiers is also a common allegation.

It can be difficult for the US authorities to successfully prosecute for an alleged illegal discharge since this usually takes place at sea outside their jurisdiction. This means that in the absence of a discharge in US waters, they prosecute crew and companies for lying and obstructing justice within US jurisdiction. These violations take the form of the presentation of a false oil record book that, of course, does not accurately reflect the illegal discharges that have taken place. In many cases, it is also alleged that the crew attempted to conceal equipment used to bypass the oily water separator or lied to the authorities or were guilty of destroying or concealing vital evidence such as engine room logs. It is also alleged in some cases that shoreside management instructed the crew to indulge in such practices. Any allegations of obstruction of justice create separate felony charges that allow the government to multiply charges, with a maximum \$500,000 fine per count.

Unlike the underlying original discharge, where there is often little tangible evidence to support the allegations, the government has multiple lines of evidence for establishing that crew members lied and obstructed justice.

While such evidence may be elicited through intimidation, offers of rewards to the whistleblowers who come forward before the investigation, and threats of jail sentences, the ship operator is still likely to be faced with physical evidence and the testimony of several crew members corroborating the government's account of violations. In these circumstances, with the cost and risk of going to trial, operators come under heavy pressure to negotiate a plea bargain agreement to the charges.

Crew members are also targeted during the investigation process and are an obvious source of evidence in relation to any criminal charges that may be brought against them individually or against the ship operator. Immunity from prosecution is often used as an enticement for crew members to co-operate with the enforcement authorities.

## Why pollute?

Much consideration has been given as to the possible motives for indulging in these illegal practices. It is generally inconceivable that engineers would be ordered to bypass the oily water separator or obstruct justice given the dire financial consequences that result, but the DoJ has indicated that it feels that saving money is part of the problem. This manifests itself in failing to purchase and install the best available technology, limiting the discharge of oil waste in port, cutting corners on maintenance, generally incentivising chief engineers to keep within budget regardless of any operational problems and failing to ensure adequate experienced manning of the engine room.

Apart from speculation concerning financial motives, problems can also arise as a result of poor systems of shoreside management control over the waste management process, due to inadequate training and auditing to ensure compliance. In other cases, there are cultural aspects resulting in a rigid hierarchy in the engine room, which actively discourages junior engineers from questioning any improper practices and, if necessary, directing such concerns to shoreside management.

There are also cases that have resulted from the deliberate acts of individual engineers, either as a result of laziness or incompetence. These so-called 'bad apples' are often the stated reason given by the ship operator for the practices onboard, although this should not always be taken at face value. There may be reasons for engineers acting improperly if they feel they have not received sufficient training or

support, in the form of proper equipment and spares, in order to deal with the normal and sometimes abnormal operational problems in the engine room.

## Inadequate management controls

A ship operator is vicariously liable for the actions of its employees and is therefore exposed to successful prosecution even if it has no knowledge of the activities in question and even if the actions were in direct violation of company policies and instructions. The mitigation of fines and probation terms agreed with the US authorities, however, is influenced by the extent to which management controls and supervision of waste management processes were already in place. It is fair to say that the operators that have been prosecuted had environmental management systems in place, but the US government deemed those plans to be ineffective in preventing violations. As a consequence, the US Coast Guard has prescribed detailed operational and management practices in the Environmental Compliance Plans (ECPs) that are integral elements of the plea agreements. The ECPs detail practices for preventing MARPOL violations that generally exceed the management controls and procedures that many ship operators currently have. The ECP effectively states the US government's view of what constitutes "best practice" for the purposes of evaluating whether a company has an effective environmental management system.



US COAST GUARD INSPECTING A POTENTIAL MARPOL VIOLATION

## Environmental Compliance Plan

### MARPOL best practice

So how can ship operators avoid becoming embroiled in this horror story of fines, probation and imprisonment? The obvious answer would be to talk to a ship operator who has been investigated through the Grand Jury process and negotiated a plea bargain with the DoJ. Apart from the fact that such people are likely to be extremely anxious to avoid repeating the experience, they will also have signed up to an Environmental Compliance Plan (ECP), which will be a condition of the plea agreement negotiated.

A close analysis of the ECPs that have been negotiated with the DoJ provides a useful insight into the best practice standards required to minimise exposure to prosecution or provide evidence in mitigation of any fines that are imposed. These ECPs are public documents and all members are urged to examine them closely in order to acquaint themselves with the expectations of the US authorities. They can be obtained from the relevant court as part of the case record or more conveniently from a US law firm which has access to such records in electronic form.

ECPs form part of the plea agreement and are a condition of the defendant's probation. Their form varies from case to case depending upon the nature of the ship operating entity and the size of the fleet. All however are designed to reflect best practice with regard to waste management onboard and the prevention of pollution. The emphasis is very much on company culture, management controls and effective verification and audit procedures. The ECP addresses the following issues:-

### Environmental Management System (EMS)

The EMS requires an environmental policy statement outlining compliance with environmental requirements whether statutory, regulatory or voluntary, and a commitment to continuous improvement in environmental performance. The EMS must contain time frames for



MANIFOLD

achieving compliance with environmental requirements and reducing the source of potential pollution from all waste streams, and must be updated as requirements change.

### Planning and implementation

Sufficient resources must be applied to meet the objectives and targets set, and the EMS will describe in detail the responsibilities of the ship's crew and shoreside personnel together with third-party service providers. Procedures must be established for receiving and addressing concerns raised by employees regarding environmental performance and compliance. All shipboard operations that may have an impact on environmental compliance should be identified and managed with a view to achieving the EMS targets, and any occurrence that may affect the ship operator's ability to achieve these targets should be documented and addressed, including accident or emergency situations. There should be thorough testing and evaluation of emergency procedures.

### Training

The importance of training, awareness and competence is emphasised in the EMS. A training programme should be instituted involving all crew and shoreside employees associated with the operation and management of the ships. This should cover the relevant sections of the ECP and EMS, and technical and practical information associated with pollution prevention and the use of pollution prevention equipment and be appropriate for the work responsibilities of each employee. The impact of any failure to comply with the requirements should be addressed and annual refresher training undertaken.

### Documentation

The EMS must also contain procedures to ensure that there is appropriate documentation concerning waste management systems that are adequate for subsequent evaluation and improvement of the operation of the EMS. The state of compliance of the organisation should also be recorded, and this information should be freely available to third-party auditors and port state representatives.

### Core values

The EMS attempts to make environmental protection a core value of the organisation by emphasising its importance and the consequences of non-compliance. Compliance with the EMS should also be part of the performance evaluation of employees.

A confidential non-compliance reporting system should be adopted to ensure that employees and crew members may quickly and confidentially report any discharges or environmental incidents. There should also be a statement of policy that environmental compliance should never be sacrificed as a way of minimising operational costs.

## Organisation and culture

### Shoreside management

The ECP requires that a senior officer with significant maritime operational experience should be appointed as the Corporate Compliance Manager, reporting direct to the Chief Executive Officer. The Corporate Compliance Manager is responsible for the implementation of the ECP, including the development and implementation of the EMS. The Corporate Compliance Manager should be responsible for soliciting, reviewing and investigating non-compliance by employees. Quarterly reports should be made concerning compliance with the ECP and the board of directors kept fully advised. The Corporate Compliance Manager is the point of contact with outside auditors and is responsible for the budget process associated with waste management.

### Onboard responsibilities

The ECP goes on to define the responsibility of the chief engineer and master as well as the ship's superintendents, port captains and port engineers. The chief engineer is obviously a key player in ensuring effective MARPOL compliance.

The role of the master is also important. In the past, the master has often distanced himself from anything to do with the operation of the engine room but, under the ECP, he has a positive obligation to show compliance with applicable maritime pollution protection requirements.

All this is designed to create a top to bottom culture of environmental compliance with defined roles and responsibilities.

## Technical requirements

The ECP will also commonly contain a number of engineering or technical requirements involving equipment enhancement or modification. These can be very specific and are generally designed to ensure that the pollution prevention equipment is working to optimum capacity, is tamper-proof and generates the minimum amount of oily waste. Perhaps the most obvious technical advice that can be given is to install the best available technology in the form of the oily water separator, incinerator etc, increase tank capacity for various waste streams and use cleaning agents consistent with the equipment's design and capability.

The use of tags and seals and brightly coloured marker paint can also deter unauthorised bypassing and other illegal practices.

Many operators have already discovered that the best operational strategy for compliance is to reduce the volume of bilge wastes and contaminants that need to be processed by the oily water separator. This includes capturing the waste at source by installing additional save-alls, capturing tank drains (a source of false Oil Content Monitor (OCM) alarms and oily water separator malfunction) before they enter the bilges, and adding settling tanks with filtration to pre-treat what is processed by the oily water separator.

Other more specific engineering requirements that may be specified in

the ECP are: a prohibition against using cross connections from engine room bilge mains to suction piping of larger pumps; and all blank flanges associated with any piping leading overboard should be permanently secured, removed or fitted with numbered tags through the flange bolts.

## Auditing

Although each ECP differs as to the type and number of audits required, the theme and format of the audit processes required remains generically the same. The shipowner will be required to nominate an independent ECP consultant acceptable to the US authorities. This consultant will then need to conduct a series of initial review and evaluation audits. These will most likely consist of an office audit of the shoreside ship operations office and ship audits of all or a portion of the fleet.

Thereafter, this same consultant will conduct a series of ongoing or compliance audits, again of the shoreside ship operations office and all or a portion of the fleet. This audit phase would occur after the ship operator has developed and begun implementation of an EMS pursuant to the ECP.

Towards the conclusion of the probationary period, the shipowner must appoint a separate company as third-party auditor that is acceptable to the US regulatory authorities. This audit will conduct the final audit phase through further compliance audits of ships randomly selected by the third-party auditor for the purposes of successful implementation and adherence to all policies and procedures of the EMS.

Finally, the shipowner must select and nominate a court-appointed monitor (CAM) acceptable to the US authorities. This CAM reviews and reports on the relationship of the auditors with the shipowners, and the adequacy and thoroughness of the entire audit process.

The audit procedures that a ship operator may voluntarily assume will be different to those imposed as part of a plea agreement with the US authorities. The importance of independent auditing is however crucial to effective MARPOL compliance and the Club is happy to recommend suitably qualified ECP consultants. The audit process is not cheap but neither are the fines imposed for non-compliance.

The scope of these audits will go beyond a typical SMS audit or routine inspection by class, port or flag state, and will include the following assessments:



OIL SPILL CLEAN UP



- Measurement and monitoring of waste streams in the engine room and machinery spaces, including leakages that can contribute to bilge loading.
- Adequacy and performance of environmental equipment including oily water separator, Oil Discharge Monitoring Equipment (ODME), incinerator and sewage systems to handle quantities of waste generated during normal operations.
- Ability of individual crew to manage environmental equipment.
- Storage capabilities.
- Slop management during cargo operations.
- Adequacy and accuracy of records relating to waste management (oil record book, garbage management plan, logbooks, etc.).
- Adequacy of ship operator's policies and procedures.
- Evaluation of documentation that ship's officers understand the ECP.
- Frequency and adequacy of shipboard pollution prevention training.
- Availability and access to training resources.
- Adequacy of reporting procedures for employees reporting incidents of non-compliance, creating a 'no-fear' culture.

**US\$250,000 FINE  
5 YEARS IN JAIL**

**If YOU make  
a false  
statement or  
entry in the Oil  
Record Book**

The Standard

## Management objectives

A detailed review and implementation of the ECP is required to satisfy the US authorities' best practice standards for waste stream management. MARPOL compliance can be achieved and multi-million dollar fines avoided, but it requires a strong commitment of management resources to achieve the following objectives:

- Create a culture of compliance. This should be framed positively rather than negatively, stressing the vital importance of pollution prevention and linking this with job performance assessments.
- Address the motives for engaging in illegal practices.
- Provide clear guidance and training to crew and onshore personnel on the procedures and principles contained in the ECP and the use of relevant equipment.
- Monitor each ship individually.
- Provide the most up-to-date equipment with adequate parts.
- Address tank capacity - holding tank capacity can be important and extra tanks are much cheaper than environmental fines.
- Provide adequate port facilities for the discharge of sludge.
- Provide a clear statement that environmental compliance is not constrained by budgets or cost savings.
- Develop detailed documentation for the analysis of waste streams for each ship and compare tank soundings with engine log records.
- Use bright paint, install seals and tags to make equipment tamper-proof.
- Encourage reporting by crew of incidents of non-compliance or any operational difficulties with potential MARPOL implications.
- Assign individual responsibility to senior officers with appropriate sign-offs.
- Institute effective and fully tested emergency procedures.
- Instruct crew not to lie to investigators or conceal documents and records.
- Audit performance by an independent expert on a regular basis.

All this is easier said than done. It will require considerable time and money. Expert help is available, however, particularly in relation to the preparation of the ECP and subsequent auditing. **The Club is happy to provide details of experts offering such assistance. Enquiries should be addressed to Brian Glover, Director of Claims - [brian.glover@ctcplc.com](mailto:brian.glover@ctcplc.com), ph +44 (0)20 7522 7417.**