

# REGULATION UNDER DEVELOPMENT OR CONSIDERATION

JANUARY 2008

## Ship Recycling (*ALL SHIPS*)

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IMO is developing a new Convention applicable to ships of 500gt which aims to regulate ship recycling by covering the design, construction and operation of ships so that the ship can be prepared in a safe and environmentally acceptable manner for recycling. Ship recycling facilities would also be regulated to ensure safe and environmentally sound recycling. Although a diplomatic conference is scheduled for the 2008-2009 biennium, there are numerous issues that remain unresolved, including:

- The relationship and extent of jurisdiction of the International Labor Organization and the impact of the Basel Convention on ship recycling facilities.
- The extent to which the regulations should be implemented to existing ships insofar as the development of accurate inventories of hazardous construction material that may have been used and safety issues of personnel involved in the development of such inventories.
- The extent to which IMO should monitor (audit) implementation of the convention.
- The extent to which detected violations for past non-compliance of ships should be accounted.
- It remains unclear as to the extent to which the Convention will allow coastal State to impose more stringent requirements on foreign flag ships than that contained in the draft Convention.
- Agreement is not yet achieved on text to ensure that a new IMO Convention would not inadvertently place governments in a position where they must deal with inconsistent international obligations between applicable ILO and IMO Convention requirements.
- There is a majority view that the Convention should not apply to ships which have exclusively operated within the waters of a State and which are recycled within that same State, there was no agreement on how such ships are to be exempted. Concerns focus on possible loopholes being introduced by proposed text which can circumvent the requirements.
- A proposed compliance mechanism to assist implementation of Parties that are recycling States but whose facilities might not be in compliance with the requirements of the Convention remains to be resolved. Concerns focus on the ability to recycle ships in facilities located in non-Party States.
- Agreement was not achieved on the need for the Convention to require a contract or agreement between the shipowner and Ship Recycling Facility.

A small, but notable, bit of progress was that the Committee agreed to use the word "marine" in lieu of "aquatic" in the definition of vessel operation and thereby exclude inland waterway vessels from the application of the new Convention.

An intersessional working group, hosted by France in January 2008, will report to MEPC 57 (April 2008) where discussion of the above issues and concerns is scheduled to continue.

## Oily Water Separators (*ALL SHIPS*)

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There was little support for the United States proposal for a mandatory phase-out, over a five year period, of oily water separators and oil discharge monitoring systems that do not comply with the new standards contained resolutions MEPC.107(49) and MEPC.108(49).

However, many expressed support for the upgrading of equipment and compliance with agreed maintenance standards, but the five year timeframe was judged to be too early given that the new standards were recently applied to equipment installed on ships on/after 1 January 2005.

MEPC tasked the DE Sub-Committee to examine the practicalities and time scale for the proposed phase-out which would affect approximately 45,000 ships worldwide and to consider the possible upgrading of existing equipment. The development of an appropriate standard addressing in-service maintenance issues for all pollution prevention equipment will also be considered.

## ISM Code Assessment (*ALL SHIPS*)

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A report by a group of independent experts was presented and briefly discussed during MSC 81 in May 2006. Due to very limited availability of raw data, the group collected and relied on the expert judgment from various levels of the shipping industry and from questionnaires completed by shipboard personnel, shore-based personnel, shipping companies and Administrations) in conducting their assessment of the impact and effectiveness of implementation of the ISM Code. Although the replies to the questionnaire were not considered to be a representative sample of the entire industry, they were considered to represent the collective experience from those that support the Code. The report concluded that although tangible positive benefits were evident when the ISM Code is fully implemented, compliance could be made more efficient by reducing administrative processes (such as use of information technology and integration of all documentation requirements) and by improving compliance monitoring.

MSC 82 considered information submitted on recent research conducted which investigated the influence of internal and external organizational structures on safety management performance and agreed that the recommendations could be used by shipping companies and other organizations to influence the management of safety to improve their safety performance.

Noting that the research identified a need to promote better communication skills relating to working practices for seafarers and to strengthen the implementation and enforcement of the requirements of the ISM Code, the MSC will consider revising the ISM Code to better reflect the seafarer representation on safety issues. In addition, MSC 83 agreed that the ISM Code Guidelines (resolution A.913(22)) for Administrations should be revised to make them more effective and user-friendly and that guidelines and associated training should be developed to assist companies and seafarers to improve the implementation of the Code.

## Explosions in Chemical and Product Tankers

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In May 2006, MSC 81 considered a report on incidents of explosions on chemical and product tankers which was carried out by an Inter-Industry Working Group over the last two years. The Group set out to identify the root causes of a database of incidents that have occurred over the past 25 years the Group identified 35 occurrences that involved fires and explosions in cargo areas of chemical and product tankers. Any common factors amongst these incidents were identified with the objective of identifying corrective actions that would prevent any further similar incidents.

The analysis revealed that the accidents occurred:

- For ships < 20,000 deadweight;
- For a majority of the cases, during tank cleaning, venting or gas freeing;
- For a significant number of cases, when established procedures were not observed;
- In ships carrying MARPOL Annex II cargoes.

The most significant contribution to the incidents, which in most cases involved ignition within a tank, was a failure to follow operational procedures. Technical or operational factors and manning levels were not considered to be a factor. Because none of the incidents occurred when inert gas was applied, the Group recommended that a formal safety assessment and cost/benefit analysis be carried out before decisions are made concerning the mandatory provision of inert gas systems to product tankers under 20,000 deadweight.

Based on the above, MSC 83 tasked its technical Sub-Committees to consider several recommendations including:

- The need to evaluate a number of safety, operational and environmental issues identified in the Report with respect to the provision of inert gas systems;
- The need to carry out a formal safety assessment and cost/benefit analysis before deciding on the provision of inert gas systems; and

- Consider the means to reduce the source of ignition, including introducing measures to mitigate in-tank pump failures and increasing the awareness of industry with respect to the consequences of static electricity which can develop from chemical spraying or steaming.

The work will consider measures for new ships and then, depending on the outcome, it could consider appropriate measures for existing oil and chemical tankers. In this regard, the MSC 83 noted that there may be problems associated with retrofitting inert gas systems on new and existing tankers including the practical & safety implications for the operation of chemical tankers and product tankers of less than 20,000 dwt.

In addition to the above initiative, the European Union has introduced a proposal to amend SOLAS to require new oil tankers  $\geq 20,000$  deadweight to be provided with a fixed hydrocarbon gas detection system to measure flammable vapor concentrations in all ballast tanks and void spaces adjacent to the cargo tanks, including the forepeak tank and any other tanks and spaces adjacent to cargo tanks. The proposal contains an exemption for fixed hydrocarbon gas detection equipment if the oil tanker is provided with constant operative inert system for such spaces. A proposed revision to the Fire Safety Systems Code contains the specifications for the fixed hydrocarbon gas detection system. The above proposals are under consideration by a Correspondence Group reporting to IMO's Fire Protection Sub-Committee. This Correspondence Group will also consider a proposal which calls for, in addition to the fixed hydrocarbon gas detection system, these tankers to be provided with the capability to inert these double-hull spaces after detection of hydrocarbon gas. However, concerns for such systems have been raised due to the highly corrosive nature of inert gas.

## **AIR POLLUTION ISSUES** *(ALL SHIPS)*

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### **Group of Experts Study**

The MEPC and the BLG Subcommittee have been evaluating air pollution issues for the last two years. The principal areas being evaluated are:

- NO<sub>x</sub> emission limits for new engines, Reduction of SO<sub>x</sub> emissions
- Reduction of Volatile Organic Compounds (VOCs)
- Emission of Particulate Matter (PM)
- NO<sub>x</sub> and particulate matter limits for existing engines.

Progress has been slow and numerous options for each of the above areas have been identified in trying to substantially minimize air pollution from all possible marine sources. In order to achieve this goal in a balanced and efficient manner and to facilitate the Committee's goal to develop practicable, workable and affordable solutions, IMO's Secretary General proposed that an Informal Cross Government/Industry Scientific Group of Experts be convened under the chairmanship of the UK. Three meetings have been scheduled (Sept., Nov. and Dec.) with a view that a report would be submitted to the BLG Sub-Committee meeting in February 2008.

The study will not aim at promoting any particular position, but will gather, evaluate and present facts to specifically address the effects of the proposed fuel options to reduce SO<sub>x</sub> and PM emissions generated by shipping, as well as assess the consequential impact such emission reductions may have on other pollutants (e.g. CO<sub>2</sub>). Selection of the limited number of participants on the study with appropriate expertise on matters within its terms of reference has not been finalized.

### **MARPOL Annex VI Revision Update**

MEPC 56 extended the schedule to complete the revision of MARPOL Annex VI by one year and agreed to the holding of an intersessional meeting of the BLG Air Pollution Working Group which is to be hosted by Germany. The work of this intersessional meeting will be sent to the BLG Sub-Committee meeting (February 2008) for review together with the results from the Informal Cross Government/Industry Scientific Group of Experts. The proposed revisions would, if approved by the BLG S/C, be sent to MEPC 57 (31 March - 4 April 2008) for consideration and approval. This would allow adoption of any new or revised regulation to occur at MEPC 58(6-10 Oct 2008).

The more substantial tasks that remain unresolved are:

- Finalize the draft proposals for Tier II and Tier III NOx regulations for new engines. The current MARPOL VI regulation 13 comprises Tier I. Tier II represents the best available in-engine technology, with potential reductions of 15% to 25% depending on engine type and has a tentative implementation date of 1 January 2011. Tier III, with a tentative implementation date of 2015 or 2016, would introduce more stringent limits requiring further engine development or the use of different after-treatment techniques. A geographically based approach is also under consideration for Tier III.
- Examine the feasibility of establishing NOx regulations for existing (pre-2000) engines and develop a draft simplified certification scheme for existing engines as a new chapter to the NOx Technical Code. In this regard, the Committee was informed that the Swedish shipping industry has gained substantial experience in successfully retrofitting after-treatment technologies to existing engines and achieved significant NOx reduction.
- Consider definition and measurement methods of possible emission limits for PM and implementation of possible PM limits for new and existing engines. Substantial work remains, particularly in examining the feasibility to introduce retrospective regulations for existing engine.
- Review and finalize, if possible, draft washwater criteria for Exhaust Gas-SOx Cleaning Systems (EGCS-SOx). Recognizing that this is new technology under development for marine applications, relatively simple criteria were developed to protect the marine environment while also allowing progress in development of this new technology. A draft set of washwater criteria was developed addressing oil (using polycyclic aromatic hydrocarbons as an indicator), pH, heavy metals, and nitrates. Separate criteria for pH are proposed for operation in ports, harbors, and estuaries - where the greatest concern has been placed) - and while underway recognizing that damage to the ship's anti-fouling system could occur as a result of highly acidic discharges along the ship's hull.
- Review the draft amendments to the Guidelines for On-board Exhaust Gas-SOx Cleaning Systems (MEPC.130(53)) and finalize the draft amended Guidelines. The draft guidelines represent a significant improvement in organization and format over the current guidelines and were considered close to finalization.

## MISCELLANEOUS ISSUES

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### Measure to Prevent Lifeboat Accidents

IMO is considering several submissions which described the difficulties experienced in applying the non-mandatory recommendations for the periodic servicing and maintenance of lifeboats, launching appliances and on-load release gear as contained in MSC.1/Circ.1206. The primary problem concerned the Circular's recommendation that inspections, servicing and repair (other than weekly and monthly inspections, and routine maintenance as defined by the manufacturer) should be conducted by the manufacturer's representative or a person appropriately trained and certified by the manufacturer. Application of MSC.1/Circ.1206 presents problems as the vast majority of lifeboat manufacturers have a limited number of representatives or certified personnel to carry out this work worldwide at this time or are not adequately represented in certain regions of the world where vessels operate for extended durations.

MSC 82 decided that MSC.1/Circ.1206 should not be made mandatory at this point in time, and tasked the DE Sub-Committee to further evaluate it with the view to making relevant portions mandatory through SOLAS by 2010. This decision does not affect the latest amendments to SOLAS III/20.11 (which introduced the annual inspection and testing of the release gear and launching appliances) which remain mandatory.

Based on the decision of MSC 83 in October 2007 that Administrations should be allowed to authorize independent service providers to carry out maintenance and repair of life-saving appliances and recognizing the current practical problems where, in many instances, manufacturer certified facilities are not available or the manufacturer is no longer in business, IACS submitted, to the DE Sub-Committee, a proposed set of recommendations on the conditions for the approval of independent service providers.

### **Means of Embarkation/Disembarkation**

MSC 83 approved, in principle, amendments to SOLAS which would require the means of embarkation and disembarkation (such as gangways and accommodation ladders) fitted on new ships to comply with standards currently being developed by IMO. The date of build for new ships will be decided at MSC 84 in May 2008 when the SOLAS amendment is set to be adopted. These standards, which were also approved in principle, refer to ISO 5488-1979 *Shipbuilding – accommodation ladders*, ISO 7061:1993 *Shipbuilding – aluminum shore gangways for seagoing vessels* and national standards.

Gangways and accommodation ladders on all ships (new and existing) will be subject to survey to confirm the proper operation of the ladder, gangway and winch, as appropriate. The load used for the test should be the lesser of the design load and the maximum operational load which may be nominated by the ship-owner or operator. All wires used to support the means of embarkation and disembarkation are to be turned end for end at intervals of not more than 30 months and be renewed when necessary due to deterioration of the falls or at intervals of not more than five years, whichever is the earlier.

### **Enhanced Drainage for RO-RO Vessels**

In light of two recent accidents, one involving the significant loss of life after the vessel capsized due to a loss of stability resulting from the accumulation of fire-fighting water on the ro-ro deck, MSC 83 approved, in principle, measures to ensure sufficient drainage capacity of ro-ro decks and to prevent large objects from blocking the drains and scuppers on new ships. The extent of measures to be provided to existing ships has not yet been decided, although some were of the view that the measures may be operational as opposed to the fitting of hardware. This matter will be progressed by several IMO technical Sub-Committees during 2008 sessions.

### **Emergency Towing Procedures**

MSC 83 approved, in principle, amendments to SOLAS which would require all ships to be provided with a procedure for fore and aft emergency towing. Such a procedure shall be carried onboard for use in emergency situations and shall be based on existing arrangements and equipment available on board the ship. The procedure, which needs only to be verified as being onboard (not be approved) by the Administration, is to include emergency towing arrangement drawings, an inventory of equipment on board that can be used for emergency towing, means and methods of communication; and sample procedures to facilitate preparation for and conduct of emergency towing operations.

If adopted at MSC 84 in May 2008, the amendments will apply as follows (the dates are tentative):

- all passenger ships not later than 1 January 2010;
- all cargo ships constructed on or after 1 January 2010; and
- all cargo ships constructed before 1 January 2010 not later than 1 January 2012.

### **General Cargo Ship Safety**

Having made significant improvements in the safety of bulk carriers through the development and implementation of a number of regulations which implement various risk control measures, IMO has recently focused its attention on the continuing high rate of accidents (in particular occupational accidents onboard) as well as port State detentions associated with general cargo ships. At MSC 83 in October 2007, there was general agreement that more detailed information was needed so that an analysis (FSA) of the cause of accidents can be undertaken to identify problem areas and appropriate risk control options. MSC 83 recognized the variety of ship types covered by the category “general cargo ship” and will, at its next session in May 2008, develop a definition of “general cargo ship” and a strategy to set a direction on how best to enhance the safety of these ships. The Committee was informed that the outcome of EU research currently being conducted which focuses on improvement of technologies for prediction of risks, safety and survivability of ships to remain afloat in an almost upright position, regardless of the kind of damage scenario (collision, grounding, fire or a power failure). Results will be submitted for consideration as the results become available.

## **Intact Stability Code**

MSC 83 approved regulation in SOLAS which will mandate that new ships  $\geq 24$  m in length to comply with Part A of the revised Intact Stability Code. If adopted in May 2008 at MSC 84, this will be the first time (except for high speed craft, HSC, that have been certified to the HSC Code and oil tankers  $\geq 5000$  dwt delivered on/after 1 February 2002) that an international convention will mandate compliance with specific intact stability criteria. The criteria in Part A of the Code include requirements for:

- minimum range of righting arm
- range of stability due to wind effects
- ship specific criteria (passenger ship, oil tankers, cargo ships carrying timber deck cargo and high speed craft)

Part B contains recommended to be used a basis for relevant safety standards, unless national stability requirements provide at least an equivalent degree of safety.