

Towards a new generation MARPOL

The IMO Bulk Liquids and Gases (BLG) Subcommittee - the so-called Tanker Subcommittee - is nearing the end of work to upgrade tanker pollution standards, as this report of its latest meeting reveals

The seventh session of the International Maritime Organisation's (IMO) Bulk Liquids and Gases Subcommittee (BLG 7) was held in London on June 24-28, 2002. The meeting was attended by 50 member states and 19 non-governmental organisations. BLG usually meets once a year, and the main focus at recent sessions has been work on the revision of Annexes I and II of the 1973/78 Marine Pollution (MARPOL) Convention, dealing with the minimisation of pollution on oil and chemical tankers, respectively. This effort can only be described as "monumental", and the work is nearing its logical conclusion. The principal decisions reached at BLG 7 are summarised below.

Annex I revision work to be complete by 2003

It was agreed to extend the target date for completion of the revision of MARPOL Annex I from 2002 and 2003, to allow adequate time to be devoted to the final points up for discussion, i.e. revision of the IOPP certificate and the Oil Record Book, Parts I and II; probabilistic methodology for oil outflow analysis; and the provision to ship operators of material safety data sheets (MSDSs) by shippers for all oil cargoes loaded and by fuel suppliers for all grades of bunker oil taken onboard.

The revision exercise, which has been underway since 1995, is being carried out to simplify, reformat and remove outdated sections of Annex I, which deals with the minimisation of marine pollution caused by oil tankers. As part of the reformatting work the original method of numbering regulation has been changed to place them in a more logical sequence by topic. Thus, for example, the original Regulations 13F and 13G will become Regulation 19 and 20, respectively.

All outstanding Annex I issues will be finalised at BLG 8 in March 2003 to enable the revised Annex to be adopted at an IMO diplomatic conference to be held later that year.

Accidental oil outflow performance

The revised Annex I will include a new Regulation 21 entitled "Accidental oil outflow performance". It will apply to tankers built three or more years after the entry into force of the revised Annex and replace the existing "Hypothetical outflow of oil" regulation. The new regulation is effectively creating two new categories of tanker, i.e. those tankers built between February 1, 2002 and "the date of entry into force of the revised Annex 1 plus 36 months", and those tankers built "after the date of entry into force of the revised Annex 1 plus 36 months".

The principal differences being introduced with the new outflow assessment regulation are changes to the index of compliance for combination carriers. Also, the model used in Regulation 21 is a simplified calculation methodology, as used for the assessment of the environmental performance of alternative designs to double hulls. It is possible that this methodology could be used in future as the model for determining the protective location of bunker fuel tanks on all types of ships.

Material Safety Data Sheets (MSDSs)

The International Association of Independent Tanker Owners' (INTERTANKO) proposal that the provision of an MSDS for each individual Annex 1 cargo and bunker oil loaded onboard a tanker be required on a mandatory basis received a good level of support at BLG 7. The reported recent increase in occurrences of significant levels

of hydrogen sulphide gas being found in both bunkers and crude oil cargoes no doubt helped garner this support.

In the event, BLG 7 agreed that such MSDSs should be provided, but only on a voluntary basis. INTERTANKO and the Oil Companies' International Marine Forum (OCIMF) will co-produce a paper for BLG 8 detailing the proposed content of an MSDS for Annex 1 cargoes and bunkers, together with a pro forma format for such a document.

Small tanker alternative designs

An alternative design to the double-hull configuration is currently being considered for the small oil tanker. Under Annex I as it currently stands, tankers under 5,000 dwt must have a double bottom and either limit the size of each cargo tank to 700 cubic metres or be arranged with wing tank spaces.

BLG 7 agreed that tankers under 5,000 dwt which meet relevant Annex I regulations governing tankers over 5,000 dwt would be at least equivalent in oil outflow performance to the larger ships. This decision effectively allows the use of mid-deck designs for small tankers.

Annex II revision and pollution categories

BLG has also been engaged in recent years in a major review of MARPOL Annex II governing the minimisation of marine pollution caused by chemical tankers. The existing Annex II provisions were developed in the 1980s and many in the industry believe they need to be revised to take into account operational experience and technological developments. One of the major considerations is whether or not to replace the current system of dividing Annex II cargoes into five separate pollution categories with a simpler three-category system.

The UN Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) is currently re-evaluating the pollution hazard of the many hundreds of products listed in the International Bulk Chemical (IBC) Code, and it had earlier been agreed that the decision on whether to opt for a three-category system would be delayed until at least 80 per cent of the products have been re-evaluated. At BLG 7 the GESAMP hazard evaluation working group reported that it had re-evaluated or evaluated for the first time a total of 547 products, representing 87 per cent of the products listed in the IBC Code.

The GESAMP group also prepared a list of the advantages and disadvantages of both the five and three-category pollution hazard systems. The group agreed that the three-category system would provide a greater degree of protection to the environment and requested the BLG Subcommittee to make a proposal to IMO's Marine Environment Protection Committee (MEPC) on this basis.

Cargo tank stripping levels

Cargo pump systems and cargo tank configurations on modern chemical tankers allow all but very small volumes of cargo residues to be stripped from the tanks during discharge operations. As a result, the possibility of reducing permitted levels of residues is under consideration as part of the Annex II revision exercise.

INTERTANKO, the Chemical Carriers Association (CCA) and the Norwegian Shipping Association (NSA) presented the results of their joint cargo tank stripping study to BLG 7. The study, which encompassed 238 chemical tankers of a wide range of sizes and ages, concluded that technology is available which enables a tank to be stripped of all but 75 litres or less of cargo. Other delegations concurred, and it was agreed that the maximum allowable volume of cargo tank residues for new ships should be set at 75 litres.

Chemical cargoes in wing tanks

Under MARPOL, tankers built since the mid-1990s for the carriage of oil must have double hulls or be built to a design offering an equivalent measure of protection. In practice, all owners have opted for double hulls. In contrast, some less hazardous chemicals can be carried in the wing tanks of single-hull ships.

Complications can arise when tankers seek to carry oil and chemical cargoes on the same voyage, and the industry has sought clarification on the issue, including how the rules might be amended to avoid the possibility of misinterpretation. After a discussion on the matter, BLG 7 agreed to amend Regulation 13F(3) of MARPOL Annex I to read "The entire cargo tank length shall be protected by ballast tanks or spaces other than tanks that carry oil as follows". This rewording enables single-hull oil/ chemical tankers to carry IBC Appendix III Chapter 18 chemical cargoes in their wing tanks, the laden wing tanks thus serving as a 'double hull' when oil is transported in the centre tanks.

Ship recycling and hazardous substances

One of the principal non-MARPOL topics considered at BLG 7 was ship recycling. MEPC had asked BLG to provide, for use by its own Correspondence Group on Ship Recycling, background information on the hazardous materials routinely remaining onboard ships sent for scrapping.

BLG 7 acknowledged the importance of the recently compiled Industry Code of Practice on Ship Recycling as an important source document and a basis for future work in the preparation of detailed draft guidelines on the minimisation of shipboard hazardous materials. Separate sections on cargo-related residues and ship-related substances are to be developed, as is a procedure for identifying hazardous substances and associated occupational health and environmental hazards in the context of ship recycling.

BLG member states have been invited to provide their views on these matters in advance of a special discussion on ship recycling-related matters scheduled for BLG 8 next March.