

THE IMO BALLAST WATER CONVENTION

THE SHIPOWNERS' VIEW OF THE WAY FORWARD

The IMO Convention now exists. It was approved and adopted in February this year.

ICS was able to provide a very detailed paper to the conference, based on input from national ship-owners associations around the world, that helped to improve clarity, and improve achievability. But the Convention now demands an eventual phase-out of relying on exchange at sea, and therefore some form of treatment system must be used.

Let me first address implementation. The Convention really has two implementation schedules. One is the traditional implementation schedule for an IMO Instrument, in Article 18, dependent on ratification by a certain number of flag states that control a certain percentage of the world's fleet. The other has been incorporated into the text of regulation B-3 by setting real dates for ships to achieve certain targets of performance.

The confusion that is going to ensue from that dual schedule can be foreseen, and was commented on by ICS at the end of the Conference. Notwithstanding that it will remain the flag state that places an obligation on a ship to comply with the Convention, it will be port or coastal states that will create the demand for ballast water to be treated prior to discharge. Because the present text of Regulation B-3.3 requires a ship with a ballast capacity of less than 5000 tonnes constructed after 31 December 2008, to meet the treatment standard in Regulation D-2, port states are likely to expect such ships to be able to do so. Once a port has indicated such an expectation, a ship-owner will do best to regard it as a condition of port entry, or at least of being able to discharge its ballast water in that port. In the bulk cargo trades – ore, grain, coal and oil – the charter traditionally specifies a full load uplift, so retention of ballast water on board would effectively mean the charter terms could not be met.

Some people have, correctly, pointed out that, because the Convention has so many other discrepancies and almost unachievable targets, it may be many years before sufficient flag states ratify it and bring it into force by the traditional route. But even if that is so, we may still have to deal with unilateral requirements that effectively implement it on the terms of Regulation B-3.

But significantly, built into the Convention in Regulation D-5, there is a procedure for reviewing the treatment standard, which includes a determination of whether appropriate technologies are available. That review must be held not later than three years before the earliest effective date of the standard in Regulation D-2. Thus it must be held before the end of next year – 2005. The implication of the review is in its fourth paragraph, that an amendment to the Annex is achievable. The feasibility of meeting the performance standard must be demonstrated to an MEPC meeting in the autumn of '05.

International approval of a treatment system is an area in which ICS cannot help, and does not feel able to become involved. IMO has accepted that there is a need for

an internationally agreed type-approval system, by which the efficacy of any treatment system can be judged. ICS must assume a type-approval process will be agreed, and that the ability of a system to meet the performance standard in Regulation D-2 will be confirmed and certified.

A ship-owner must soon choose from certified equipment. Development of treatment systems must therefore not only continue but accelerate. ICS urges the treatment process industry, not least Martob, to regard eighteen months as the target period in which systems must have all development completed, performance trials and operational testing done, and series production of marketable equipment set up.

There is a need to get beyond bench testing or laboratory work merely to determine effectiveness. What is wanted is:

- a proven and reliable effectiveness in a design that can be built into a ship;
- a consistency of performance at a known flow rate matching the needs of the industry;
- a capability already proven to port and flag state officers;
- plans for lengthy sea trials to be undertaken where the performance can be monitored and analysed, and
- series production by an already-chosen manufacturer ready to begin;

ICS and Intertanko members suggest that inventors should approach ship designers, and ship builders. Far and away the majority of ship-owners buying new ships buy a standard design, with variations only in things like electronics. A shipyard will offer a complete design that will meet the demands of Solas, Marpol and Loadlines, be within the specifications of Suez and Panama canals, and that can trade on known routes profitably. The design will have been looked over by classification societies known to act for important flag administrations, and will have taken account of important unilateral requirements such as those of the USA or the European Union. To offer such designs at competitive rates, the yards will have identified all the materials necessary, all power supplies needed, piping and pumping and storage sizes, etc. so that suppliers and costs are known. The ship designer will need to fit in all parts of the ballast treatment system as well, at the earliest stage, when everything is still on paper, and it is still possible to move bulkheads, ballast pumps, and even the main engine itself. Once a shipyard has been convinced of a system's efficacy, the full potential ship-fit can be explored.

So what will the ship designer need to know ?

- ballast water flow rates, pumping capacity and treatment times;
- the operating pressures in all parts;
- what instrumentation will be needed, and what will be supplied by the manufacturer, and where it must be installed;
- which parts of the system can be installed in machinery spaces and which must be put in ballast tanks;
- insulation needs and the power demands – electricity, fuel, pressures, heat;
- the weight of the plant and the space it will take including access room, room for spare filter elements or UV lamps or chemicals needed,
- overhaul or renewal periods.

A comprehensive system, known to the shipyard, with all parts and machinery already sourced, will be offered by that yard at a very competitive price, and will usually be bought with the ship. Even if an owner specifies another system, a shipyard will still need these details in order to quote a revised price for the building.

Other considerations. Not only the shipyard will need the above information. Classification societies, the maritime administrations of the ships, and the environment agencies of coastal states must be informed. The need for training of ships' crews, administration surveyors or port officers must be available so that instruction manuals and ballast water management plans can be written and approved.

A system need not necessarily be cheap. The ability of a ship to fulfil its contractual obligations, especially in the bulk cargo trades that are so competitive, will depend upon its freedom to discharge any ballast water. Above all, the ship-owner will demand reliability and consistency. A treatment system that provides both, and costs 2X dollars, may be seen as preferable to one that costs X dollars but has been pared to the bone, or which demands extensive man-hours to operate. An owner's choice of system will be helped, of course, by a manufacturer having a world-wide support network of engineers, able to help a ship in a remote bulk cargo loading port.

Conclusion. The ballast water convention exists; it must one day be complied with. Ship-owners need the tools to do so. You, as inventors, must now produce those tools. ICS urges you to be ready, at the end of next year, to say whether the requirements of the Convention can be met, or whether the standard or entry into force dates must be amended.