Busy Baltic to benefit from global pollution measures

By Efthimios E. Mitropoulos

The Baltic Sea is one of the busiest in the world and shipping activity within it has been steadily expanding, in particular over recent decades. This reflects the dramatic increase in oil transport through the Baltic, the economic prosperity of the Baltic Rim States and the influential role they play in international trade.

Current statistics reveal that around 2,000 sizeable ships are normally at sea at any one time in the Baltic, including large oil tankers, ships carrying dangerous and potentially polluting cargoes, as well as many large passenger ferries. Navigation in the Baltic Sea can be challenging, with narrow straits, winding passages, shallow depths, archipelagos, fishing activity and areas where shipping lanes cross, all adding to the difficulties. But, although a number of shipping accidents do, regrettably, occur in the Baltic from time to time, fortunately, only a few of these incidents have so far resulted in loss of life or serious pollution.

To ensure the safety and security of navigation and the protection of the environment, various measures have been adopted by IMO, by HELCOM at the regional level, and at the national level by the Baltic Sea States themselves. As a result, maritime transportation is generally recognized as the safest, most effective and environmentally friendly way of transporting goods within the region.

However, the increase in shipping activity has, quite rightly, raised concerns about the effect it may have on the environment, particularly on air quality. Exhaust emissions from shipping, due to the combustion of marine fuels that contain a high sulphur content, contribute to air pollution in the form of sulphur oxide (SOx) and particulate matter. These can harm the environment through the formation of smog, acid rain and acidification, as well as adversely affecting human health, particularly around coastal areas with dense ship traffic and busy ports.

Nitrogen oxide (NOx) emissions from ships also cause acid depositions that can be detrimental to the natural environment and contribute to eutrophication. In addition to SOx and NOx, shipping, like other major industries, also contributes to the emissions of greenhouse gases (mainly CO2), volatile organic compounds (VOCs) from petroleum cargoes and, to a lesser degree, ozone-depleting substances.

Globally, air pollution from ships is addressed by IMO's MARPOL Convention (Annex VI), which contains regulations for the pevention of air pollution from ships, an instrument which has been in force since May 2005. Annex VI covers ozone-depleting substances, SOx, NOx and VOCs. And, while air pollution is a global problem, it has assumed a heightened significance for the littoral states of the Baltic, a sea which is almost land-locked. Annex VI, therefore, addresses this and makes the Baltic a "SOx emission control area", demanding, as of 19 May 2006, that all ships operating there either use fuel oil with a low sulphur content (not exceeding 1.5 per cent) or exhaust gas cleaning systems offering equivalent standards.

Just two months after its entry into force, in July 2005, IMO agreed on the need to undertake an extensive review of Annex VI, to take account of current technological improvements and the need to further reduce harmful emissions from ships.

As a result of that review process, in April this year, IMO's Marine Environment Protection Committee (MEPC) approved amendments to Annex VI, which are expected to be formally adopted this month and enter into force 16 months thereafter (i.e. in February 2010). The main changes would see a progressive reduction in SOx emissions from ships, a reduction of the limits applicable both globally and in Emission Control Areas (ECAs) such as the Baltic Sea and progressive reductions in NOx emissions from marine engines. The revised Annex VI will also allow for ECAs to be designated for SOx and particulate matter, or NOx, or all three types of emissions from ships, in the event that the need for additional protection of human health and the environment in the area is demonstrated.

Although Annex VI does not cover the emission of greenhouse gases (GHGs) from ships, IMO has given ample consideration to this matter. Indeed, the Organization has a mandate, through the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol, to pursue the limitation or reduction of emissions of greenhouse gases from ships. To that end, IMO has approved an action plan and is now working towards the establishment of a robust regime that will regulate shipping at the global level and contribute to the deceleration of climate change.

Progress towards such a regime was made during the first intersessional meeting of IMO's Working Group on Greenhouse Gas Emissions from Ships, held in Oslo, Norway, from 23 to 27 June 2008. The week-long session was tasked with developing the technical basis for reduction mechanisms that may form part of the future IMO regime to control GHG emissions from international shipping, as well as drafts of the actual reduction mechanisms themselves, for further consideration by MEPC 58 in October 2008, which, notwithstanding the importance of the Oslo meeting, will have the final, decisive role to play on the issue.

In particular, the Oslo meeting made progress on developing a mandatory CO2 Design Index for ships and an interim CO2 Operational Index, and held extensive discussions on best practices for voluntary implementation and economic instruments with GHG-reduction potential. These efforts are due to culminate with the adoption, in 2009, of binding regulations for all ships, which, I hope, will successfully convey, to the Conference of Parties to the UNFCCC to be held in Copenhagen towards the end of next year, IMO's firm determination to do as much as it can about the environment.

The need for IMO and the maritime community as a whole to act in concert with, and contribute to, the wider international efforts aimed at swift and substantive action to combat climate change under the UNFCCC process, by proactively addressing the principles and objectives enshrined in the roadmap agreed at the December 2007 Bali Conference, is clear.

Nevertheless, there has been a recurrent debate over whether the GHG emission reductions agreed by IMO should apply exclusively to countries listed in Annex I to the Kyoto Protocol (in essence, developed countries) or whether their application should extend to all ships, no matter what flag they fly. The repercussions of that debate extend far and wide.

If reductions in CO2 emissions from ships are to benefit the environment as a whole, they must apply globally to all ships in the world fleet, regardless of their flag. It seems completely incongruous that two ships, carrying similar cargo, loaded in the same port, sailing at the same speed and having the same Baltic Sea destination, should be treated differently simply because they are registered under two different flags – one the flag of a non-Annex I country and, the other, that of an Annex I country. They would each be releasing the same amount of GHGs, wherever they might sail to. If mandatory reduction measures were applied only to ships flagged in Annex I countries, which in today's shipping reality represent a mere 25 per cent of the world's merchant fleet, the net benefit for the global environment would be minimal and that, clearly, given the global mandate and responsibility of IMO, would not be a satisfactory outcome.

Moreover, if control measures applied only to ships flagged in Annex I countries, there might be a massive and rapid exodus from Annex I to non-Annex I registers, thus reducing even further the abatement potential. IMO should, therefore, develop a regime that will contribute positively, fairly and visibly to the endeavours of the international community as a whole to combat climate change; a regime in which, because of its unique international nature, shipping in its entirety, not a small fraction thereof, engages comprehensively to regulate GHG emissions effectively.

The Kyoto Protocol to the UNFCCC – wisely in my opinion – left the limitation and reduction of GHGs from shipping to IMO to regulate. But Kyoto expires in 2012 and will be replaced by the outcome of the Copenhagen meeting in December 2009. IMO will be reporting to that meeting and I am confident that, following the progress that is expected to be made on this issue by the MEPC in October 2008 and July 2009, we will have a positive outcome to convey, not only for Baltic Sea States, but for the global community as a whole.

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