Shipping's environmental regulatory outlook

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This article shares the perspective of two shipping industry association leaders regarding the industry's most critical environmental issues.

International Maritime Organization (IMO)

The IMO's initial efforts were directed towards maritime safety. However, with the introduction in 1954 of the *International Convention for the Prevention of Pollution of the Sea by Oil*, the organization was thrust into leading the creation of measures to prevent and control pollution caused by ships and to mitigate the effects of any environmental damage arising from maritime operations and accidents.

The scope of IMO's environmental initiatives has expanded widely over the last 65 years. The Marine Environment Protection Committee (MEPC) addresses issues such as the control and prevention of ship-source pollution covered by *The International Convention for the Prevention of Pollution from Ships, 1973* (MARPOL) treaty, including oil, chemicals carried in bulk, sewage, garbage and emissions from ships including air pollutants and greenhouse gas emissions. Other matters covered include ballast water management, anti-fouling systems, ship recycling, pollution preparedness and response and identification of special areas, particularly, sensitive sea areas.

Beginning January 1, 2020, the IMO's new regulations will limit the sulphur content in marine fuels used by ocean-going vessels to 0.5 per cent by volume, a reduction from the previous limit of 3.5 per cent. The pace at which the global shipping sector is improving its environmental impact and its efforts to decrease greenhouse gas (GHG) emissions significantly are amongst the most hotly debated issues for both industry stakeholders and environmental advocacy groups.

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Changing environmental regulations leave ship owners wrestling with the need to obtain a clear line of sight in which to make investment decisions, operate fleets and mitigate the cost of the regulatory compliance to remain competitive. For example, availability and cost implications of complying with low sulphur fuel are a significant shipping industry preoccupation in 2019.

The U.S. Energy Administration (EIA) January 2019 Short-Term Energy Outlook (STEO), for the first time, included analysis of the effect that upcoming changes to marine fuel sulphur specifications will have on crude oil and petroleum product markets. The change in fuel specification is expected to put upward pressure on diesel margins and modest upward pressure on crude oil prices in late 2019 and early 2020. EIA's analysis indicates that the price effects that result from implementing this new standard will be most acute in 2020 and will diminish over time.

Also on the radar of shipowners is the need to comply with new measures in support of the IMO's objective of reducing GHG emissions. This requires all vessels of 5,000 gross tonnage and above to start collecting data on their fuel-oil consumption under the mandatory data collection reporting requirements which entered into force in March 2018 and came into effect January 1, 2019.

The data collection system is one of the measures taken which will support the implementation of IMO's Initial IMO Strategy on Reduction of GHG Emissions from Ships, adopted in 2018. The data collection system is intended to support the three-step approach towards addressing CO_2 emissions from international shipping: data collection and data analysis followed by decision-making on what further measures, if any, are required.

The aggregate data is reported to the flag State for each calendar year and the flag State, having determined that the data has been reported in accordance with the requirements, issues a Statement of Compliance to the ship. Flag States are required to subsequently transfer this data to an IMO Ship Fuel Oil Consumption Database. IMO is required to produce an annual report to the MEPC, summarizing the data collected.

Canadian priorities

The Shipping Federation of Canada's Environmental Committee addresses a broad range of issues related to environmental compliance and sustainability within the shipping industry, with a specific focus on subjects such as ballast water, air emissions, greenhouse gases, cargo residues and oceans management.

"Internationally, meeting the 2020 global sulphur limit is an immediate priority. However, there are still uncertainties about costs, availability of compliant fuel, operational challenges and whether enforcement by States will be on par to ensure a level playing field for ship owners and operators," indicated Sonia Simard Director, Legislative and Environmental Affairs Shipping Federation of Canada. "An equally pressing issue is the need for

IMO States to agree on a set of short and medium-term actions to deliver on the IMO's GHG strategy while ship owners are assessing commitments and best approaches to carbon neutrality."

While the international shipping industry's immediate environmental focus in 2019 is clear, the thrust of the environmental efforts impacting the shipping sector at a federal level in Canada is very diffuse. For example, the Canadian Marine Advisory Council Spring 2019 agenda indicates that the topics of Heavy Fuel Oil, IMO GHG, ballast water, reducing the impacts of marine traffic on endangered whale populations and regulations for the protection of wrecks of heritage value are all within the environmental agenda. Also, considerable emphasis is being placed on Canada's Oceans Protection Plan and amendments to the *Canada Shipping Act, 2001* to:

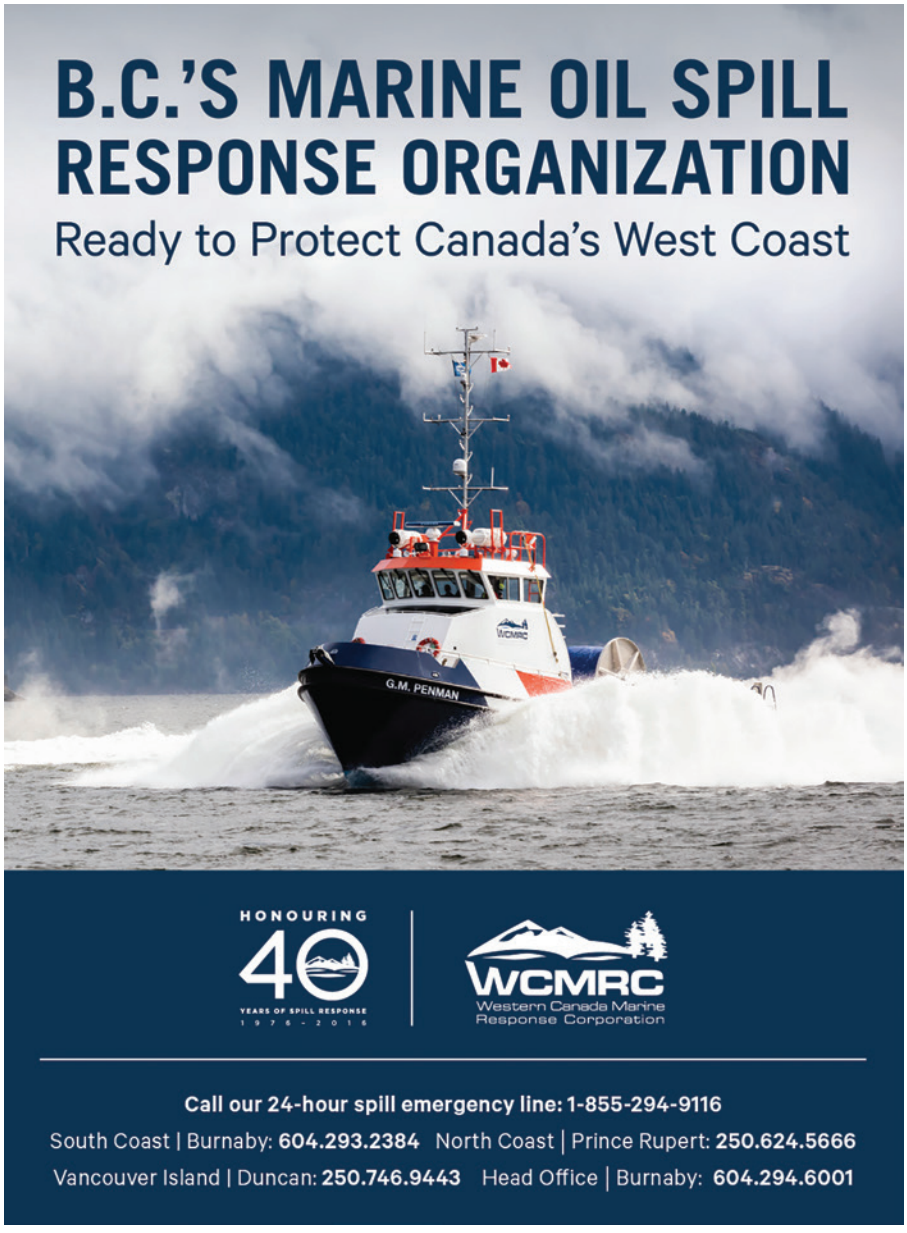
- Strengthen marine environmental protection.
- Enhanced pollution response.
- Modernize the Ship-Source Oil Pollution Fund.

"Interestingly, in Canada, the Federal Government is focussing a lot of its attention on reducing the impact of commercial navigation on at-risk whales — with a drive to impose operational mitigation measures (e.g., speed limits) nationally — while at the same time attempting to bring the subject on the MEPC agenda to tackle ship design and equipment as the 'ultimate' mitigation approach. Transport Canada's recent proposal to impose an Underwater Noise Management Plan at the fleet level has certainly raised concerns. There is an issue with timing and feasibility," stated Simard. "In our opinion, Transport Canada should take the lead on implementing an effective network of noise measurement stations domestically and promoting the same internationally, as an important pre-requisite to effectively moving forward the discussion on design/retrofit options for mitigating vessel noise. Furthermore, over the next five years or so, international ship owners will be required to proceed with significant investments and retrofits to meet immediate IMO requirements for ballast water management, compliance with the 2020 global sulphur limits and reduction of GHG emissions. In that context, there is a need to establish some methodology to identify and test priorities for investment in fleet modification instead of exposing ship owners to yet another set of disconnected priorities to tackle underwater noise. Finally, the relationship between the reduction of underwater noise and energy efficiency must be further investigated and better understood — which bring us back to the main priority at the international level, that is, GHG reductions."

Bonnie Gee, Vice President, Chamber of Shipping, observed that, from her members' perspective, dealing with the implications of the global sulphur cap was one of the most immediately pressing global environmental regulatory issues.

Within B.C.'s ports, several operational issues with environmental considerations were also vying for attention. A prime example is the location of bunkering operations within the Port of Vancouver. Currently, a large container ship calling at Deltaport would need to deviate and go to Vancouver Harbour to take on bunker fuel. It will not only result in more traffic in Vancouver Harbour but will also increase air emissions and costs to ship owners and ultimately cargo owners. With new marine fuel types becoming more common, proactively considering the direction of port growth along with the requirements to adequately serve customers with traditional bunkers and alternative fuels is needed.

The topic of vessel speed as it relates to underwater noise and marine mammal protection, especially the Southern Resident Killer Whale, is an ongoing issue for ship



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owners and agents with vessels transiting the Salish Sea. According to Gee, physical and acoustic disturbance to other marine mammals will likely be an emerging issue in northern ports such as Prince Rupert and Kitimat.

Conclusion

With the plethora of shipping environmental issues and regulations on the immediate and long term horizon, Gee noted the growing complexity and time commitment for all involved to address the full range of topics. She feels it is time to rethink how government departments interact with the shipping sector and consider better ways to create more effective means of consultation for dealing with the growing morass of environmental and safety initiatives. Gee suggested a "whole of government" approach to dealing with the issues was needed.

The cumulative impacts of shipping on the environment are of vital importance to everyone. Since Canada's ports and gateways face intense global competition, a deeper understanding of the full effect of the current regulatory approach on Canada's trade competitiveness is also required.

The World Economic Forum's Global Competitiveness Report 2017-2018 identified the most problematic factors for doing business in Canada. Among the top constraints were inefficient government bureaucracy, insufficient capacity to innovate, inadequate supply of infrastructure and policy instability. The Canadian shipping and port sector are at the forefront of navigating these challenges.

The importance of maritime environmental regulatory issues is not going away. Political participants of all persuasions and levels should be encouraged to make a genuine commitment to engage in evidence-based decisions and to work collaboratively with Canada's maritime transport sector to envision an environmental regulatory approach that advances both the public interest and our country's need for robust maritime trade. Targeting the port and shipping sector with an ill-conceived or one-off regulatory initiative — such as a tanker ban, for example — as an indirect way of influencing other essential policy decisions has resulted in a decade of lost economic opportunity for some parts of the country. With an aging workforce, now is the time to draw on the deep expertise and experience of Canada's maritime leaders to help chart the course ahead.

Darryl Anderson is a strategy, trade development, logistics and transportation consultant. His blog Shipping Matters focuses on maritime transportation and policy issues.