

MARINE ENVIRONMENT PROTECTION
COMMITTEE
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Agenda item 9

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**DEVELOPMENT OF MEASURES TO REDUCE RISKS OF USE AND CARRIAGE OF HEAVY
FUEL OIL AS FUEL BY SHIPS IN ARCTIC WATERS**

**Comments on document MEPC 73/9 Report of the Informal Correspondence Group on the
determination of an appropriate impact assessment methodology**

**Submitted by Clean Shipping Coalition, FoEI, Greenpeace International, Pacific
Environment, and WWF**

SUMMARY

Executive summary: The co-sponsors provide feedback on document MEPC 73/9 Report of the Informal Correspondence Group on the determination of an appropriate impact assessment methodology submitted by Canada and the Russian Federation, and draws attention to new studies that will contribute to assessing the economic and environmental impacts of a ban on the use of heavy fuel oil and carriage as fuel by ships in the Arctic.

Strategic Direction, if applicable: 6

Output: 6.11

Action to be taken: Paragraph 9

Related documents: MEPC 71/INF.36, MEPC 71/16/4; MEPC 72/17; MEPC 73/9, MEPC 73/INF.19, MEPC 73/9/1 and MEPC 73/9/2

Introduction

1 This submission is made in accordance with the provisions of paragraph 6.12.5 of MSC-MEPC.1/Circ.5 on the organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies and comments on MEPC 73/9. In April, MEPC 72 approved a scope of work for the Pollution Prevention &

Response (PPR) sub-committee (MEPC 73/17, paragraph 11.9), which included a decision to “*on the basis of an assessment of the impacts, develop a ban on HFO for use and carriage as fuel by ships in Arctic waters, on an appropriate timescale.*” Parties and non-governmental organisations were urged to submit concrete proposals to MEPC 73 on an appropriate impact assessment methodology process.

2 In MEPC 73/9 Canada and the Russian Federation summarise the discussion of an informal correspondence group established with a view to sharing information and combining efforts to develop a more informed proposal for MEPC 73. Paragraph 10 (MEPC 73/9) identifies three steps:

- define the issue and establish the context;
- identify the options with their associated economic, environmental and social impacts; and
- determine the economic, social and environmental impacts on Arctic communities of the impacts of a spill.

Impact assessment and a proposed ban on HFO use and carriage as fuel by ships in Arctic waters

3 Impact assessments (IAs) have been developed and used as a routine planning and management tool for many years. In particular, IAs are used to assess the environmental, social and economic effects of a development or activity. Considerable experience in developing the proper methodology for an IA has been accumulated worldwide, as seen in examples such as the European Commission Impact Assessment Guidelines published in 2006 and updated in 2009¹. Whenever an IA is used, it is important that all three components form part of the assessment – the environmental effect, the economic effect and the social effect. It is also critical that the IA is used as a forward-looking, decision-informing tool.

4 The methodology for undertaking IA is well established and widely-used², and generally involves a number of steps, as indicated in MEPC 73/9 and MEPC 73/9/2. Furthermore, much of the relevant information needed to guide a decision on protecting the Arctic through a ban on HFO use and carriage as fuel has already been published by several organisations, including the Arctic Council. Such existing data can and should be used to inform PPR on the development of a ban on HFO for use and carriage as fuel by ships in Arctic waters.

Analysis of impacts

5 Paragraph 12 (MEPC 73/9) highlights the need to consider the economic, environmental and social impacts of options, and in particular, the submission refers to the need to consider the possible economic impacts of a ban on HFO. The co-sponsors would like to draw the Committee’s attention to new studies that specifically assess possible economic impact of the implementation of a ban on HFO.

6 A report from the Nuka Research and Planning Group which examines possible impacts to communities associated with a ban on the use and carriage for use of HFO by

¹ See for example guidance from the European Commission first published in 2006 and updated in 2009. http://ec.europa.eu/smart-regulation/impact/commission_guidelines/docs/iag_2009_en.pdf

² Ibid

vessels operating in the Canadian Arctic was published in July 2018.³ The analysis focused on three types of impacts associated with an HFO ban: (1) potential increased shipping costs to transport commodities to Canadian Arctic communities; (2) potential impacts from an HFO spill in the Canadian Arctic; and (3) potential costs incurred by Canadian Arctic residents as a result of an HFO spill in the Arctic. Key findings include:

- A review of historical HFO cost data and historical food prices in Nunavut, Canada, did not indicate a correlation between fuel costs and food prices. In fact, while HFO prices fell by nearly 65% from 2014 to 2017, the average cost of select shelf-stable food items likely transported by vessel to communities increased by about 15%.
- The price of HFO has varied significantly in recent years, yet community resupply vessels continued to deliver goods to northern communities during times (e.g. the late 2013s) when HFO prices were higher than 2017 average distillate fuel prices.
- A modelled analysis of a vessel using MGO rather than HFO along a Nunavut resupply route in 2017, when MGO prices were more than double those of HFO, showed that the incremental costs of using more expensive MGO fuel is about \$11 (2018 Canadian dollars) per cargo tonne, or about one cent per kilogram of cargo transported. These estimates decrease if the price differential between HFO and MGO decreases as predicted, down to a half cent per kilogram of cargo in 2020 and beyond (due to the global sulphur cap).
- An Arctic HFO spill would be more challenging to clean up, more persistent and likely more damaging than a distillate spill. HFO spills are also costlier to clean up than distillate fuel spills. An HFO spill is estimated at between U.S. \$106,000 and U.S. \$512,000 per tonne spilled, including shoreline clean-up, socio-economic, and environmental costs. Distillate spills range from U.S. \$32,000 to U.S. \$193,000 per tonne spilled.
- The current Canadian liability regime does not require adequate ship owners insurance to cover the potential costs of an Arctic fuel oil spill. This acts as a disincentive for owners/operators to switch away from HFO, pushing the financial burden and liability from private operators to communities, especially those who depend on a clean ocean as a daily food source.

7 CE Delft, an independent research and consultancy group, has published a new study titled “Residual bunker fuel ban in the IMO Arctic waters” focused on assessing the costs and benefits of a ban on the use and carriage of HFO as fuel by ships in Arctic waters⁴. The analysis focuses on the year 2021 – the first year of the proposed Arctic HFO ban, which also follows the global sulphur cap. Key findings include:

- Fleet-wide possible impact – assuming all ships choose to comply with the ban by using distillate fuels, the costs of switching the Arctic fleet to distillate fuels will range between

³ Phasing Out the Use and Carriage for Use of Heavy Fuel Oil in the Canadian Arctic: Impacts to Northern Communities. Report to WWF Canada, July 2018. Available at:

http://d2akrl9rvxl3z3.cloudfront.net/downloads/wwf_hfo_phase_out_impacts_final_reduced.pdf

⁴ Nelissen, D, 2018. Residual bunker fuel ban in the IMO Arctic waters An assessment of costs and benefits. Delft, CE Delft, August 2018. Available at:

<https://www.cedelft.eu/en/publications/2165/residuals-bunker-fuel-ban-in-the-imo-arctic-waters>

U.S. \$4 million (Low case), U.S. \$13 million (Base case) and U.S. \$21 million (High case) in 2021. These additional costs represent an increase of 3%, 9% and 18% respectively compared to business as usual. This is consistent with the International Council on Clean Transportation's cost estimates presented in MEPC 71/INF.36 and referenced in MEPC 71/16/4.⁵

- Possible impact on individual ships – the ban-related average ship costs, for the Base case price scenario for individual ships, would increase by 2% (for ships choosing LSHFO to comply with the global sulphur cap) and by 4 to 15% (for ships choosing EGCS+HFO to comply with the global sulphur). In general, the majority of the ships are expected to sail on LSHFO to comply with the global sulphur cap.
- Change of consumer prices – impact of an HFO ban on consumer prices has been analysed by means of two case studies: one in Greenland and one in North Canada. For Greenland, the report estimates a 0.2% to 0.5% increase of import/export prices due to an HFO ban. For North Canada, the report concludes that there will be a 0.2% increase in household expenses due to an HFO ban. These cost increases are relatively low, even if the ban-related additional transport costs are fully passed on to the consumer.
- The clean-up costs saved under an HFO ban will amount to between U.S. \$3.4 and \$45 million and between U.S. \$5.3 and U.S. \$70 million depending on the ship type and size.

8 The co-sponsors note that these savings are several times higher than the estimated annual transport cost increase for the Arctic fleet due to an HFO ban, and would also highlight to the Committee that not all of the implications of an HFO spill in the Arctic would be economic in nature. Indeed, some of the most serious, long-lasting and hard-to-mitigate impacts of such a spill would be environmental and social. For example, pollution of Arctic marine ecosystems and wildlife would create a knock on effect that would undoubtedly harm the subsistence and livelihoods of indigenous communities. It is worth noting that communities may not be able to maintain a living following an HFO spill, e.g. when fisheries are suspended.

Action requested of the Committee

9 The Committee is requested to note the information provided in paragraphs 3 – 8, and agree to request the PPR sub-committee to undertake its work based on the scope of work agreed at MEPC 72 (MEPC 72/17, paragraph 11.9).

⁵ Roy, B. and Comer, B. Alternatives to heavy fuel oil use in the Arctic: Economic and environmental tradeoffs. ICCT, April 2017. Available at; <https://www.theicct.org/publications/alternatives-heavy-fuel-oil-use-arctic-economic-and-environmental-tradeoffs>