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75th session  
Agenda item 10

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## POLLUTION PREVENTION AND RESPONSE

### Comments on document MEPC 75/10/Add.1, paragraph 3.4, on reducing the impact on the Arctic of Black Carbon emissions from international shipping

Submitted by FOEI, Greenpeace International, WWF, Pacific Environment and CSC

#### SUMMARY

*Executive summary:* In response to documents MEPC 75/10/Add.1 and MEPC 75/7/15 and in light of the crisis unfolding in the Arctic, along with the fact that Black Carbon emissions from shipping continue to grow both globally and in the Arctic, the co-sponsors propose the development and adoption of an MEPC Black Carbon resolution. The resolution would set out recommended interim measures pending completion of IMO work to identify and implement one or more Black Carbon abatement measures. The annex includes elements that should be considered for inclusion in such a resolution.

*Strategic direction, if applicable:* 3

*Output:* 3.3

*Action to be taken:* Paragraph 7

*Related documents:* MEPC 75/10/Add.1, MEPC 75/7/15, MEPC 75/5/4 and PPR 7/22

#### Introduction

1 This document is submitted in accordance with paragraph 10 of Circular Letter No.3985/Rev.1 on Resumption of the seventy-fifth session of the Marine Environment Protection Committee (16 to 20 November 2020), and provides comments in response to document MEPC 75/10/Add.1 (Secretariat) on remaining matters emanating from PPR 7, in particular on paragraph 3.4 on reducing the impact on the Arctic of Black Carbon emissions from international shipping, and in relation to document MEPC 75/7/15 (Secretariat) on the Fourth IMO GHG Study 2020 – Final Report.

2 Throughout 2020, the Arctic climate crisis has featured in the news on a regular basis. In June, temperatures north of the Arctic Circle reached 38°C (100.4°F), the highest temperature ever recorded there,<sup>1</sup> and Arctic sea ice reached its lowest extent ever for the month of July with substantial openings in the sea ice to the north of Alaska and within the Beaufort and Chukchi Seas.<sup>2</sup> The Northern Sea Route along the Russian Federation's Arctic coast also opened in July for the first time ever, driven in part by Black Carbon emissions from wildfires in the region that by the end of August had poured CO<sub>2</sub> emissions equivalent to those of Spain into the atmosphere, breaking previous annual records with much of the wildfire season still remaining.<sup>3</sup> Then in August new research showed that Arctic sea ice is melting faster than climate models have so far predicted,<sup>4</sup> and that the Greenland ice sheet melt has accelerated further since 2016,<sup>5</sup> contributing to sea-level rise globally but especially along the North American northeast coastline. In September, it was announced that the Arctic summer sea ice minimum had reached its second lowest extent since records began over 40 years ago.<sup>6</sup> These Arctic dynamics have long-term global impacts, such as accelerated warming due to loss of sea ice reflectivity, weather pattern disturbances across the northern hemisphere, and sea-level rise that several studies noted will continue for decades or centuries,<sup>7</sup> impacting the coastal cities of many Members, especially with tidal and storm surge events. Reducing Black Carbon emissions within the region is one of the few levers available to slow this loss of ice and the negative global impacts thereby arising, and Arctic Council members have committed to doing so.<sup>8</sup>

3 In document MEPC 75/10/Add.1, paragraph 3.4 notes the deliberations of PPR 7 in respect of reducing the impact on the Arctic of Black Carbon emissions from international shipping, while document MEPC 75/7/15 presents the Fourth IMO GHG Study 2020, which for the first time includes estimates of Black Carbon emissions. The Study found that total Black Carbon emissions, including international, domestic and fishing activity, have grown approximately 12% from 89kt in 2012 to 100kt in 2018.<sup>9</sup> In addition to these submissions to MEPC 75, the Committee has also received document MEPC 75/5/4 (FOEI, WWF, Pacific Environment and CSC) which recalls that there is a considerable history of work on Black Carbon and its effect in the Arctic which commenced at IMO in 2008 and for which a work plan was agreed 9 years ago by MEPC 62 and included a requirement for the (then) BLG Sub-Committee to "investigate appropriate control measures to reduce the impact of Black Carbon emissions from international shipping".

4 The co-sponsors note that despite work on Black Carbon having started in 2011, nearly 10 years ago, there is still no IMO Black Carbon control measure in place. During much of the same period the Fourth IMO GHG Study shows that there has been a 12% increase in the amount of Black Carbon emitted by ships globally. Furthermore, a white paper

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1 <http://www.washingtonpost.com/weather/2020/07/29/arctic-climate-change-hastens/>

2 <http://nsidc.org/arcticseaicenews/2020/07/>

3 <https://www.nature.com/articles/d41586-020-02568-y>

4 <https://www.nature.com/articles/s41558-020-0865-2>

5 <https://www.nature.com/articles/s43247-020-0010-1>

6 <https://nsidc.org/arcticseaicenews/2020/09/arctic-sea-ice-decline-stalls-out-at-second-lowest-minimum/>

7 <https://www.nature.com/articles/s43247-020-0001-2>

8 <https://www.canada.ca/en/environment-climate-change/corporate/international-affairs/partnerships-organizations/arctic-reducing-black-carbon-methane.html>

9 <https://theicct.org/news/fourth-imo-ghg-study-finalreport-pr-20200804>

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from the International Council on Clean Transportation (ICCT) published in September 2020<sup>10</sup> and analysing the effectiveness of the proposed IMO Arctic heavy fuel oil (HFO) ban regulation in reducing HFO carriage and use as fuel by ships in Arctic waters, concluded that between 2015 and 2019, Black Carbon emissions from Arctic shipping using HFO increased 72% while the emissions from the entire Arctic fleet increased 85% over the same period.

5 Document MEPC 75/10/Add.1 indicates that PPR 7 agreed to draft terms of reference for output 3.3 (as set out in paragraph 5 of document MEPC 74/10/8), on the basis that action considered under the output could include non-mandatory instruments such as guidance. The co-sponsors also note that, in accordance with the terms of reference for the PPR Sub-Committee to reduce the impact on the Arctic of Black Carbon emissions from international shipping, the Sub-Committee is expected to report to MEPC 77, hopefully sometime in 2021, but recognizes that reporting to MEPC 77 could result in any mandatory action identified requiring at least two further sessions to be approved and adopted and a further 16 months to come into effect. As a consequence, it is unlikely that a mandatory measure to reduce the impact of Black Carbon emissions from international shipping, if agreed, would take effect before the end of 2024.

6 In light of the crisis unfolding in the Arctic, and the slow progress in investigating appropriate control measures to reduce the impact of Black Carbon emissions from international shipping, along with the fact that Black Carbon emissions from shipping continue to grow both globally and in the Arctic, the co-sponsors urge IMO Member States to support the development and adoption of an MEPC Black Carbon resolution. The resolution would set out recommended interim measures pending the work to be done by the PPR Sub-Committee to identify Black Carbon abatement policies being concluded. Anticipating that an MEPC resolution would demonstrate the intent of IMO Members to address the impact on the Arctic of Black Carbon emissions from international shipping, in the annex to this document the co-sponsors provide some elements for consideration for inclusion in an MEPC resolution.

### **Action requested of the Committee**

7 The Committee is invited to consider the matters raised in paragraphs 2 to 6 and to support the development of an MEPC resolution on voluntary interim measures to address the impact of Black Carbon emissions on the Arctic, taking into account the elements included in the annex.

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<sup>10</sup> Comer, B., Osipova, L., Georgeff, E., & Mao, X. (2020). *The International Maritime Organization's proposed Arctic heavy fuel oil ban: Likely implications and opportunities for improvement*. Retrieved from the International Council on Clean Transportation at <https://theicct.org/publications/analysis-HFO-ban-IMO-2020>.



## ANNEX

### ELEMENTS FOR INCLUSION IN AN MEPC RESOLUTION SUPPORTING RECOMMENDED INTERIM BLACK CARBON EMISSION REDUCTION MEASURES

#### Preambular elements

...aiming at reducing the impact on the Arctic of Black Carbon emissions from international shipping on a voluntary basis ahead of completion of the work on concrete measures,

...acknowledging that black carbon emissions are a potent short-lived contributor to climate forcing, which is second only to CO<sub>2</sub> in terms of international shipping's impact on the global climate; represents 7% to 21% of shipping's overall GHG equivalent impact on the climate depending on whether it is measured on a 100 or 20-year timescale; and

...acknowledging that the impact is amplified many times with greater warming impact compared to the impact of BC emitted at lower latitudes,

...acknowledging that as a portion of particulate matter (PM<sub>2.5</sub>), black carbon has a negative impact on human health, and has been linked to respiratory and cardiovascular disease, cancer, and even birth defects,

...noting that IMO had considered documents providing summaries and analyses of various approaches to reduce emissions of climate forcing agents from international shipping, which included information on the impact of black carbon at MEPC 58;

...noting that MEPC 62 agreed to a work plan which, among other things, called on the Sub-Committee on Bulk Liquids and Gases (BLG) to "investigate appropriate control measures to reduce the impact of black carbon emissions from international shipping and submit a final report to MEPC 65, where the Committee should agree on the appropriate action(s)",

...noting that MEPC 74 called for proposals on ways to mitigate Black Carbon,

...recognizing that the Ministers of the Arctic Council Member States adopted an expert group report that recommended a collective, aspirational goal to further reduce black carbon emissions by 25% to 33% relative to 2013 levels by 2025,

...recognizing that in 2019 the Ministers of the Arctic Council adopted an expert group report summarizing progress and making recommendations which called on actors to "Develop, as appropriate, and report on measures and best practices to reduce particulate matter and black carbon emissions from shipping" as a matter of urgency, and

#### Resolution elements

...calls on ship operators to switch from residual fuels or residual fuel blends to distillate fuels or other cleaner alternative fuels when operating in or near the Arctic; and

...calls on Member States to require ships' operators to switch from residual fuels or residual fuel blends to distillate fuels or other cleaner alternative fuels (if not already done so) when operating in or near the Arctic.