

5th September 2022

Dear Director-General Hololei,

Thank you for your note of 02 August responding to our earlier correspondence on ships' black carbon emissions impacting the Arctic. As mentioned in my acknowledgement of 12 August, I would like to discuss further some of the comments concerning black carbon (BC) in future EU measures and am attaching a Clean Arctic Alliance note setting out our thinking on these issues.

As you will be aware, the Arctic is facing a severe crisis and the EU's commitment to lead on zero emission Arctic shipping requires that action be taken immediately. The IMO committed to address the impact on the Arctic of ship BC emissions 12 years ago but has yet to produce any concrete regulations that will result in a reduction in these emissions. IMO's Resolution MEPC 77 243 from last November calling for a voluntary switch to distillates was the first tangible step, and it is now imperative that this be converted into mandatory action at both IMO and EU level for BC emissions to be reduced across all shipping impacting the Arctic.

The Clean Arctic Alliance believes that the EU Fit for 55 package can be strengthened through the co-decision process in ways that ensure that the transition to cleaner fuels includes action in the first instance to address both HFO use and BC emissions. In the attached note, we highlight several opportunities for the EU/EC to take the lead both internationally and regionally on Arctic ship pollution as committed to in last October's Communication (JOIN (2021) 27 final).

We would welcome the opportunity to discuss these issues in greater depth and as you suggested, I have contacted the members of the D1 team proposing that we meet in Brussels this month. We have a provisional date identified, so I am copying this note to Mr Oscislowski and Mr Batista, and to Ms Kopczynska. We will also be raising the issues in the attached note with the Climate, Environment and External Action Directorates.

Yours sincerely



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Clean Arctic Alliance Note: Addressing the tackling emissions of black carbon in the Arctic

Will Fit for 55 disincentivize the use of HFOs

The Clean Arctic Alliance (CAA) welcomes the extension of the ETS to maritime transport and the aim of the FuelEU Maritime Regulation to act together to transform the energy used by shipping, but we do question whether the proposals in their current formulation will be sufficient to disincentivise the use of HFOs and thus substantially contribute to reducing black carbon (BC) emissions. While generating important financial resources to tackle climate change, ETS allowance prices are determined by much lower marginal abatement costs outside the maritime sector. Any impact will likely be an “across-the-board” reduction on both fuel use and GHG emissions and insufficient to specifically target HFO use or indeed reduce the consumption of BC producing fuels. Moreover, as has been seen this year, rising fuel prices have widened the gap between HFO and VLSFO/distillate fuel costs and regrettably this trend is likely to incentivize further scrubber installations given the shorter payback periods. CAA is concerned that the current share of HFO use under the ship MRV may therefore rise.

Implementing a GHG intensity standard and mandating the use of cleaner fuels as proposed in Fuel EU Maritime is a welcome, more targeted measure but the CAA is concerned that the envisioned transition to lighter distillates whether bio or synthetic based, let alone renewable and low carbon fuels, will take well over a decade before starting to have a measurable impact. Delivering a zero emission Arctic shipping commitment cannot wait. It is likely that the first days with no Arctic sea ice will be experienced within a similar timeframe and a recent study has found that we are already destined to see a 27cm rise in sea levels from the Greenland ice cap melt alone, escalating to 78cm without appropriate action.

An internal CAA analysis (see separate excel file) looked at the GHG intensity of the various marine fuels based on the Commission proposal after adding BC (and methane) on both a 100- and 20-year GWP basis using WtW emission factors. Doing so clearly shows that the fuel GHG intensity requirements will mean that MRV ships will need to start reducing their consumption of HFO from 2025, and do so irrespective of scrubber use, as the GHG intensity is based on fuel burn not post engine emissions. This analysis shows that a specific BC approach in FuelEU Maritime can indeed target both HFO and BC reductions and should therefore be pursued.

Emission control areas (ECAs)

IMO/EU action to reduce sulphur emissions through the designation of sulphur emission control areas (SECAs) in both North America and Europe has led not only to a shift to lower sulphur fuels but to a dramatic parallel shift towards the installation of scrubbers and continued HFO use. The Commission’s aim to extend ECAs to all EU waters is very welcome and we would like to discuss concrete next steps. We do appreciate however that the difference in fuel cost between HFOs and SECA compliant fuel has more than doubled since the Mediterranean SECA impact assessment was completed and that this could further encourage the trend to install scrubbers. Although scrubbers are effective at reducing sulphur dioxide from ship exhausts, previous research by the International Council on Clean Transportation has shown that using scrubbers results in higher

amounts of carbon dioxide and particulate matter including black carbon compared with using marine gas oil (MGO)¹.

Arctic HFO carriage and fuel use ban will not solve the BC issue

The CAA welcomes the Commission's commitment to ensure a robust entry into force on 1 July 2024 of the IMO prohibition on the use of HFO by ships trading in Arctic waters, but we fear that reliance on the ban to reduce Arctic ship BC may well be misplaced. While the ban prohibits HFO use in Arctic waters and prohibits HFO carriage as fuel, it was developed to protect the Arctic from the risk of HFO spills and not to address the threat of black carbon emissions impacting the Arctic (which can arrive in the Arctic from further afield). Moreover, it will not become fully effective until July 2029 – five years after entry into force. As submissions to the IMO's Marine Environment Protection Committee have demonstrated (e.g. MEPC 76/3/10) the inclusion of exemptions for ships with protected fuel tanks and the ability of Arctic coastal states to issue waivers for their own flagged vessels when operating in their own waters in the new Regulation will result in a significant delay in the implementation of the prohibition.

Together, these loopholes will enable a high level of continued HFO use (either HFO plus a scrubber or VLSFOs which largely fall within the definition of HFO) in the Arctic until mid-2029, with potentially very little reduction in black carbon emissions. Analysis by the International Council on Clean Transportation (ICCT) indicates that the mid-2024 Arctic HFO prohibition will only reduce HFO use by 16%, leading to only a small 5% reduction in BC emissions because many vessels will be able to circumvent the prohibition until 1 July 2029. It is even possible, if not likely given ongoing growth in Arctic traffic, that in the coming decade an increasing proportion of ships operating in the Arctic will be exempt from the HFO ban as new ships with protected fuel tanks replace older ships. Additionally, uncertainties around the definition of HFO could even mean the continued use of HFO-like fuels in the Arctic beyond 2029.

So, unfortunately the 2024 Arctic HFO ban to reduce the risk of an HFO spill, in no way constitutes an alternative to a switch to distillate fuels to reduce black carbon emissions impacting the Arctic. The CAA has recently addressed the suggestion to the contrary during the discussions of PPR's Air Pollution Correspondence Group consideration of BC (see ToR 1 and 3). We are disappointed that there has only been limited EU engagement in this Correspondence Group, while with the IMO Correspondence Group on Marine Fuel Life-Cycle GHG Analysis the opportunity for the EU to support acting now to include BC in the LCA analysis was not taken up. The CAA supports speeding up work to include black carbon in the IMO CII.

Geographic scope

The CAA also wishes to reiterate here that measures to address the impact on the Arctic of BC emissions from international shipping must extend well beyond Arctic waters as defined for the purposes of the Polar Code. The EC in fact noted (PPR 8 INF 2 Annex 2 page 10) that the "Arctic area is undefined in terms of geographical scope of application of BC policies". MEPC 62/24 paragraph 4.20 agreed in 2011 to a work plan to consider the impact on the Arctic of Black Carbon emissions from international shipping so any regulatory measures to address black carbon emissions should focus on the impact on the Arctic. It is recognised that BC in the Arctic

¹ <https://theicct.org/sites/default/files/publications/scrubber-discharges-Apr2021.pdf>

atmosphere can also be transported from southern latitudes as low as 40 degrees north². The IMO's Polar Code definition of Arctic waters covers a much more restricted geographic scope than, for example, either the Arctic Human Development Report (AHDR) geographic definition published by the Arctic Council or the Arctic Monitoring and Assessment Programme (AMAP). This means that the IMO, and the Commission with regards to EU action, will need to address the issue of geographic scope when deciding on regulation to reduce the impact of BC emissions. It is the Clean Arctic Alliance's view that the regulatory scope should as a minimum cover the maritime waters of the Arctic Human Development Report (AHDR) area, or the Arctic Monitoring and Assessment Programme (AMAP) area, or those waters north of 60°N.

Reducing aromatics/soot in marine fuels.

The PPR Air Pollution Correspondence Group considering the black carbon ToRs is addressing the question of reducing the aromatic content of marine fuels. During the deliberations, one Member stated that a BC limit value should be based on the best available engine technology and available fuel for new builds. It was also noted helpfully that the IMO should request ISO to specify a standardized method for determining aromatic content in marine fuels, which could then be used to determine the aromatic content of the various 0.5% S compliant fuels and ultimately set a fuel aromatic content limit based on the average of the lowest aromatic fuels to facilitate real world in-use black carbon reductions from all marine engines.

CAA believes that it would be valuable to seek the direct involvement of ISO on a standardized method for determining the aromatic content of marine fuels, particularly since such tests at a refinery level are well established for both road and aviation fuels where aromatic content is limited by regulation. It would be valuable if information on ways to determine the aromatic content in marine fuels could be made available.

² https://oaarchive.arctic-council.org/bitstream/handle/11374/788/ACSAO-NO02_8_2b_Black_Carbon_Initiative_Report.pdf?sequence=1&isAllowed=y