



January 29, 2015

VIA EMAIL

Federica Mogherini, High Representative of the Union for Foreign Affairs and Security Policy

Karmenu Vella, Commissioner for Environment, Maritime Affairs and Fisheries

Martin Schulz, President, European Parliament

Elmar Brok, Chair, European Parliament Committee on Foreign Affairs

Giovanni La Via, Chair, Committee on the Environment, Public Health and Food Safety

Re: Arctic Council and HFO use in Arctic shipping

Next week in Stockholm, the Arctic Council's Protection of the Arctic Marine Environment (PAME) Working Group will continue to cover the issue of heavy fuel oil (HFO) by shipping in the Arctic.

As a follow-on to HFO Phase I and Phase II reports by Det Norske Veritas for PAME, and in accordance with the PAME 2015-2017 Work Plan, a submission by the U.S. et al. describing spills or releases of HFO in the Arctic and consequent impacts was prepared for PAME I-2015. A revised version of this document is expected for PAME I-2016, along with a paper from Norway related to the HFO Phase III(B) project entitled "Possible hazards for engines and fuels systems using heavy fuel oil in cold climates." While these documents are helpful and informative, their submittals raise the question as to whether further information gathering and analysis is called for—or, whether, as we believe, persuasive and extensive evidence has been sufficiently put forward at both the Council and the IMO that militates in favor of action to cease the use of HFO by vessels in the Arctic. The eight Arctic Council Member States and communities represented by the six indigenous Permanent Participant organizations have the most at stake on this important issue, and the time is ripe for regional leadership at the IMO to enact an HFO use ban in the Arctic.

We note that the Arctic Ocean Review Final Report, released in May 2013, remarks that PAME is undertaking a study on the environmental risks related to the use and carriage of HFO by vessels in the Arctic and "will identify options and make recommendations including the possible adoption of new international regulations—to mitigate those risks."¹ Two and a half years later we are still not at this stage, and it is unclear when any recommendations will be forthcoming.

¹ PAME, The Arctic Ocean Review Project, Final Report, (Phase II 2011-2013), Kiruna May 2013. Protection of the Arctic Marine Environment (PAME) Secretariat, Akureyri (2013).

In our opinion, HFO use in 2016 by vessels in Arctic marine waters is highly imprudent, for many reasons, including but not limited to the following. First, effectively cleaning up an HFO spill in Arctic ice-covered waters is impracticable, if not impossible. HFO has unique properties amongst ship fuels, as it emulsifies in water, whereas lighter distillates evaporate. This means that its total volume increases rapidly over a few days and spreads throughout the water column. Coupled with its viscosity and tendency to sink and stick to anything it comes into contact with, cleanup effort becomes insurmountable. This point should not be overlooked, and is underscored by recent events. The oil spill involving the tanker *MV Nadezhda* off Sakhalin Island occurred in waters free of ice and in close proximity to a port, yet response was still stymied by severe weather.² If a similar event had taken place in the Bering Strait or comparably remote and under-equipped area, a timely response would likely have been infeasible. And even if it were eventually mounted, clean-up efforts would have been minimally effective at best. The problem is more acute in Arctic waters because of lower species diversity as well as reduced growth and reproduction rates for its biota. More damage can occur, more quickly and with longer lasting effects than in other climates.

Second, banning the use of HFO in the Arctic will reduce black carbon, a potent climate-forcing substance. Efforts to decrease short-lived climate forcers can complement global initiatives to ratchet down carbon dioxide emissions. The Council's Framework for Action on black carbon acknowledges that black carbon has substantial impact on the Arctic and that its reduction contributes to global efforts to limit the increase in global average temperature to below 2 degrees Celsius above pre-industrial levels. AMAP has determined that Arctic warming could be cut by 0.25C (0.5F) by 2025 through global reductions in black carbon (and co-emitted air pollutants).³ In addition, recently the prominent atmospheric scientist Veerabhadran Ramanathan and his co-author asserted that if we reduce black carbon emissions by 90 percent, as well as phase out HFCs and decrease methane emissions by 50 percent, expected global warming could be halved over the next 35 years.⁴

Moreover, it should be noted that black carbon emissions from shipping are becoming more significant in the Arctic, with retreating sea ice due to climate change facilitating efforts to expand trade, exploit natural resources, and conduct tourism. A high-growth scenario for Arctic shipping even projects black carbon levels to exceed 2004 levels nearly fivefold by 2030 and over 18-fold by 2050.⁵

Third, in comparison to other types of black carbon, "mitigation of diesel-engine sources offers the most confidence in reducing the near-term climate forcing."⁶ Hence, focus on ship-source black carbon such as from HFO ought to be a priority.

² Emily Russell, *Russian Oil Spill in North Pacific Calls Attention to Lack of Regulations in Bering Strait*, KNOM, Dec. 3, 2015 available at <http://www.knom.org/wp/blog/2015/12/03/russian-oil-spill-in-north-pacific-calls-attention-to-lack-of-regulations-in-bering-strait/>.

³ AMAP, 2015. AMAP Assessment 2015: Black carbon and ozone as Arctic climate forcers. Arctic Monitoring and Assessment Programme (AMAP), Oslo, Norway.

⁴ Veerabhadran Ramanathan and Daniel Press, Opinion Editorial, *To help stop global warming, curb short-lived pollutants*, L.A. TIMES, Dec. 28, 2015, available at <http://www.latimes.com/opinion/op-ed/la-oe-1225-ramanathan-press-slcp-climate-change-20151225-story.html>.

⁵ Corbett et al., 2010. Arctic shipping emissions inventories and future scenarios. *Atmos. Chem. Phys.* 10(19): 9689-9704.

⁶ Bond et al., 2013. Bounding the role of black carbon in the climate system: A scientific assessment. *J. Geophys. Res. Atmos.* 118(11): 5380-5552, at 5388.

Fourth, reducing black carbon by banning the use of HFO by vessels in the Arctic will not only aid in decreasing global and regional warming, but also mitigate impacts to air quality and public health.⁷

Finally, in terms of procedure, a minor amendment to MARPOL Annex I is all that would be necessary to effect an HFO use ban for the Arctic. This could be achieved at the IMO in a relatively short amount of time. And precedent exists for this type of modification, as the IMO adopted a ban on the use (as well as carriage) of HFO by vessels in the Southern Ocean in 2010.

In conclusion, the need to reduce black carbon emissions has been called “urgent.”⁸ We agree with that sentiment. While national reduction goals for Arctic Council Member States and observers are, of course, important and laudable, the Council’s current “Framework for Action” does not yet address black carbon emissions from international shipping. This omission ought to be remedied, particularly in light of the current and anticipated contribution of Arctic shipping to regional black carbon levels.

Despite some positive steps taken by the IMO with the Polar Code, we believe that measures are desperately needed to reduce the environmental impacts from Arctic shipping, and that a logical place to focus attention is vessel fuel quality. While less than one-third of the vessels that currently operate in the Arctic run on HFO, since these represent nearly all of the larger ships their fuel consumption constitutes about three quarters of regional shipping fuel use.⁹

The risks to the marine environment, the climate, and public health are too great to permit the continued use of HFO in Arctic shipping. Efforts to eliminate the use of HFO by ships in the Arctic therefore are timely and well-justified.

The European Parliament passed a resolution on 20 January 2011 stating “that the rapid warming of the Arctic makes it necessary . . . to work on possible further short-term measures to limit Arctic warming.” In part to achieve that objective, the resolution “requests the EU and its Member States to propose, as part of the ongoing IMO work on a mandatory Polar Code for shipping, that soot emissions and heavy fuel oil be regulated specifically; in the event that such negotiations do not bear fruits, requests the Commission to put forward proposals on rules for vessels calling at EU

⁷ Scovronick, 2015, 2015. Reducing Global Health Risks Through Mitigation of Short-Lived Climate Pollutants. Scoping Report For Policy-makers, Geneva, Switzerland. *See also* Green et al., 2011. Mortality in Latitudes 40° N and Above from Primary Particulate Matter Emissions, Submitted by Energy and Environmental Research Associates, LLC; Pittsford, NY; USA. Prepared for the Clean Air Task Force, Boston, MA, USA, 25 April 2011, *available at* http://www.energyandenvironmental.com/images/stories/CATF_reports/mepc62reportbyeera.pdf. Also submitted as annex to IMO doc. MEPC 62/INF. 32 by CSC, 6 May 2011 (study estimates that shipping emissions of BC and particulate organic matter will be responsible for approximately 6,200 premature deaths in 2012 in the Arctic front area (i.e., above 40 degrees north latitude)).

⁸ Hannah Hoag, *A Black Carbon Crackdown Could Cool Temperatures*, ARCTIC DEEPLY, Dec. 23, 2015, *available at* <http://www.arcticdeedly.org/articles/2015/12/8198/black-carbon-crackdown-cool-temperatures/>.

⁹ Det Norske Veritas, HFO in the Arctic-Phase 2, for Norwegian Environmental Agency, DNV Doc. No./Report No.: 2013-1542-16G8ZQC-5/1, 6, 33 (2013), *available at* <http://www.pame.is/index.php/projects/arctic-marine-shipping/heavy-fuel-in-the-arcticphase-i>.

ports subsequent to, or prior to, journeys through Arctic waters, with a view to imposing a strict regime limiting soot emissions and the use and carriage of heavy fuel oil.”¹⁰

In light of the Joint Communication of the Commission and the High Representative of the Union for Foreign Affairs and Security Policy of 26 June 2012 on Developing a European Union Policy towards the Arctic Region, and the European Parliament Resolution of 12 March 2014 on an EU Strategy for the Arctic, and while the European Commission awaits the outcome of the deferred decision for permanent observer status at the Arctic Council, we ask for your leadership in bringing together EU Member States and EU institutions to recommend appropriate action by the Arctic Council and at the IMO in the near term to this end.

We appreciate your attention to this letter.

Bill Hemmings, Transport & Environment
John Maggs, Seas at Risk

¹⁰ The resolution also states that a bunker fuel use and carriage ban “might be appropriate in Arctic waters to reduce risks to the environment in case of accidents.” European Union: European Parliament, European Parliament resolution on a sustainable EU policy for the High North, 20 July 2011, A7-0377/2010.