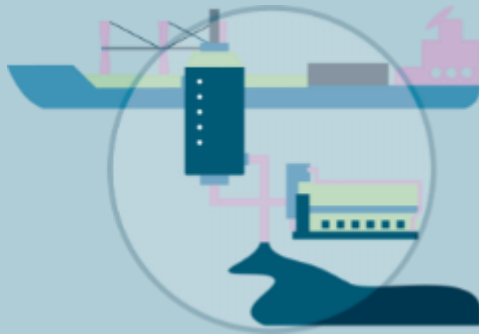


# Black carbon, Scrubbers, and the Arctic

A Clean Arctic Alliance briefing ahead of this month's Pollution Prevention & Response Subcommittee (PPR 12) meeting of the IMO



**Tuesday 21 January 2025 | 11:30 EST, 16:30 GMT, 17:30 CET**



**CLEAN ARCTIC  
ALLIANCE**

[cleanarctic.org](http://cleanarctic.org) | [@cleanarctic](https://twitter.com/cleanarctic)

# Welcome and Introduction

## Black carbon, Scrubbers, and the Arctic

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## This 45 mins briefing event is recorded.

Please submit your question(s) via the Q&A section. They will be addressed after the presentations.

### Programme:

- Welcome and introduction
- Presentations on black carbon
- Presentation on scrubbers
- Q&A session
- Remarks & Thank you

An online briefing organised by:



[cleanarctic.org](http://cleanarctic.org) | [@cleanarctic](https://twitter.com/cleanarctic)

# Black Carbon and Arctic shipping climate impacts

**Bill Hemmings**

Black Carbon Advisor, Clean Arctic Alliance



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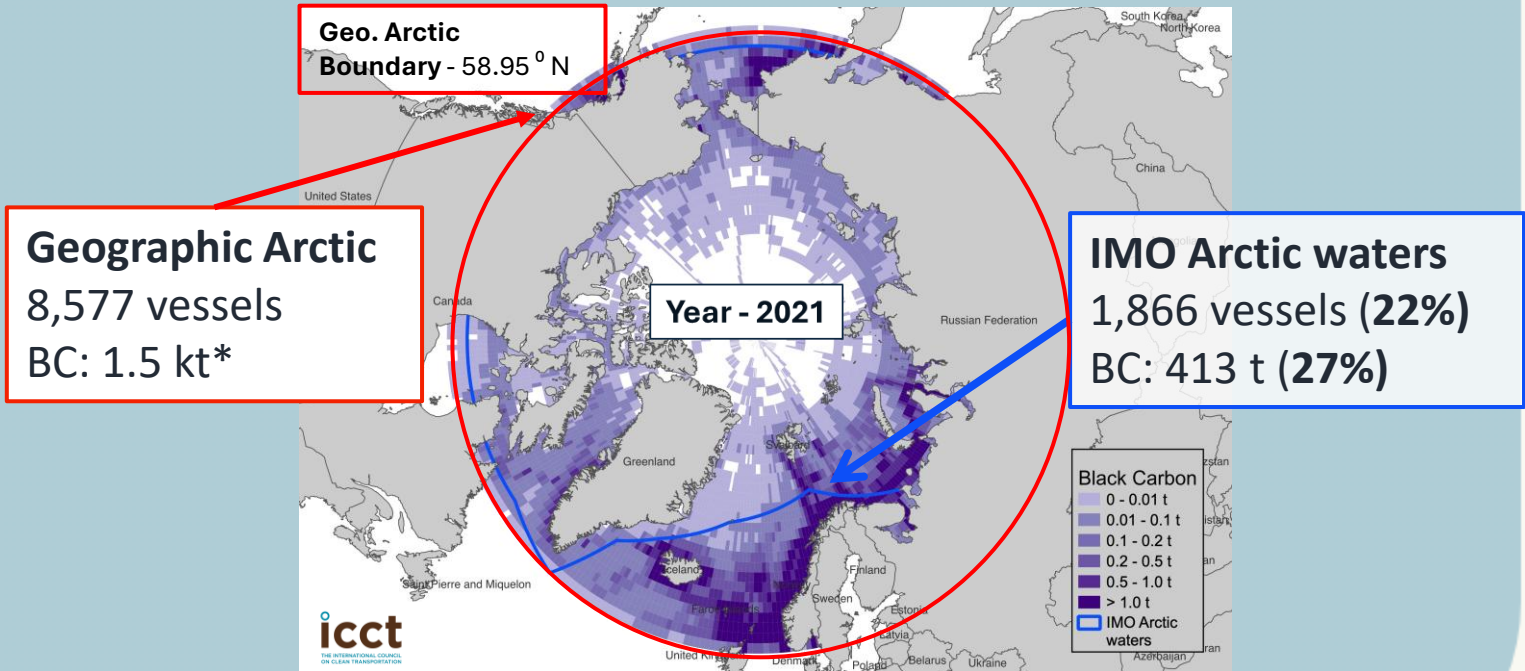
- The impact of ship BC on the Arctic is important unfinished business related to shipping's growing presence there
- It has been on the IMO agenda for 14 years
- The IMO is committed to global regulatory action to cut ship CO2 and GHG emissions at MEPC 83
- BC is 3200 times a more potent climate forcer than CO2 in the short term
- More so when deposited directly on ice and snow
- Fact that BC isn't a GHG should not be an obstacle to states taking similar regulatory action to ship GHG

- Residual fuels can be replaced with distillates which will cut BC emissions and their climate warming impacts
- As per ISO at PPR11 last February and in PPR12/6/1
- It is the immediately feasible first solution
- recognised in IMO voluntary Resolution 342 (77) in 2021
- It is the same switch to distillates that thousands of ships do when entering IMO ECAs

- ISO has proposed to PPR12 four BC polar fuel quality criteria
- DMA distillates possessing these 4 fuel quality criteria already feature in ISO 8217 2024
- Dubbed 'Arctic BC polar fuels' to replace residual use overnight.
- An appropriate definition of 'BC polar fuels' needs to be sorted in a PPR12 Working Group
- Which excludes residuals while allowing all other fuels in use today as well as future fuels being developed to cut GHG

- Any oil spill of high pour point residual fuels in the Arctic will be impossible to clean up
- Because unlike distillate fuels they immediately ‘clump’
- Norway is calling for an amendment to MARPOL Annex I
- To effectively ban all residual fuels in the Arctic – because they have high pour points up to 30 degrees C.
- 99% of proposed BC polar fuels have pour points of 0 degrees C or less
- The max pour point limit Norway proposes for the Arctic

# Geographic versus IMO Arctic waters

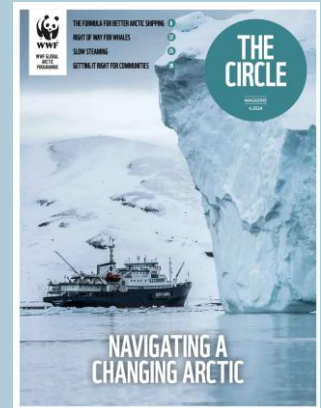


\*excluding shipping in the  
Baltic Sea

Source: ICCT's SAVE model estimates based on AIS (Spire, 2021) and IHS Markit (S&P Global, 2022)



- It is common knowledge that cleaner engine fuels cause less air pollution. By using so-called “polar fuels” when operating in the Arctic, ships could cut their climate impacts significantly overnight.
- Distillate grade marine fuels were proposed as ideal polar fuels in February 2024 to replace residuals and significantly reduce ship black carbon emissions. They also have low pour points.
- It has got to be worth saving the Arctic (along with the IMO’s and international shipping’s credibility) by implementing a switch to polar fuels now?



<https://www.arcticwwf.org/the-circle/stories/reducing-black-carbon-in-the-arctic/>  
[www.arcticwwf.org/magazine-issues/2024/navigating-a-changing-arctic](https://www.arcticwwf.org/magazine-issues/2024/navigating-a-changing-arctic)



**Thanks!**

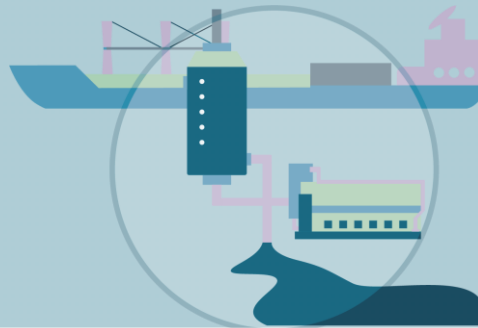
Bill Hemmings

BC Advisor, Clean Arctic Alliance

# Prohibiting the use of scrubbers

**Eelco Leemans**

Technical Advisor, Clean Arctic Alliance

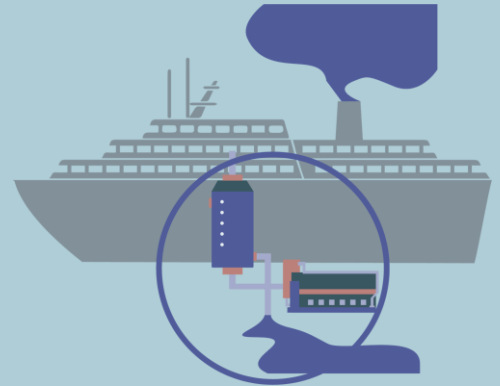


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# Scrubbers

- Scrubbers are used on ships to limit SO<sub>x</sub> emissions as an alternative to compliant low sulphur fuels.
- Consequence: wastewater with harmful substances (PAH, metals, strong acids etc.) are discharged into the sea.



# EMERGE

- The international 4-year program EMERGE produced > 40 scientific studies on the impacts of ship pollution among other scrubbers
- <https://emerge-h2020.eu>

Welcome to EMERGE

Posted on 23rd February 2021 by Lina\_Zapata\_Restrepo



**Evaluation, control and  
Mitigation of the  
EnviRonmental impacts of  
shippinG Emissions**

## IMO's subcommittee PPR 12

- 9 documents by member states + industry groups
- 3 documents by eNGO's (all deferred from previous MEPC meetings)

**PPR 11** invited Member States and international organizations to submit further proposals to PPR 12 on the identification and development, as appropriate, of regulatory measures and instruments on the discharge of discharge water from EGCS.

## The Clean Arctic Alliance is calling for the following:

1. Consider whether the use of scrubbers is aligned with requirements outlined in regulation 4 of MARPOL Annex VI
2. Amend MARPOL Annex VI to explicitly prohibit the use of scrubbers as a means of alternative compliance, as inconsistent with the obligations of IMO Member States under international treaties

## The Clean Arctic Alliance is calling for the following:

3. Until a global ban is introduced, encourage a scrubber waste discharge ban in jurisdictional waters and stop approving scrubbers as an alternative compliance.
4. Adopt a resolution calling on shipping operators to immediately stop the release of scrubber discharge wastes in areas identified for their sensitivity, vulnerability, or conservation value.



**Thank you!**

**Eelco Leemans**

Technical Advisor, Clean Arctic Alliance

<https://cleanarctic.org/2024/04/04/scrubbers-the-solution-to-pollution-is-stop-using-dirty-fuel>

[www.arcticwwf.org/magazine-issues/2024/navigating-a-changing-arctic](http://www.arcticwwf.org/magazine-issues/2024/navigating-a-changing-arctic)



# Q&A session

## Speakers:

- **Bill Hemmings:** BC Advisor - Clean Arctic Alliance
- **Eelco Leemans:** Technical Advisor - Clean Arctic Alliance

## Moderator:

- **Sian Prior:** Lead Advisor – Clean Arctic Alliance



To submit your question, please use the Q&A section of this Zoom webinar.  
Thank you.

# Closing Remarks | Thank you



Continue the conversation:

**@CleanArctic**

visit:

**cleanarctic.org**

email us:

**info@cleanarctic.org**