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AIR POLLUTION PREVENTION

EGCS and UNCLOS

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and Inuit Circumpolar Council**

SUMMARY

Executive summary: This document outlines how the discharge of wastes from Exhaust Gas Cleaning Systems (EGCS) into the marine environment as an alternative compliance mechanism for SO_x emissions appears to raise issues of inconsistency with the law of the sea obligations of States to protect and preserve the marine environment, and the suggested steps to address the likely inconsistencies.

*Strategic direction,
if applicable:* 1

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Action to be taken: Paragraph 16

Related documents: MEPC 76/9/1; MEPC 77/9/1 and PPR 9/INF.22

Introduction

1 In 2008, MEPC 70 adopted amendments to MARPOL Annex VI on *Effective date of implementation of the fuel oil standard in regulation 14.1.3 of MARPOL Annex VI* (resolution MEPC.280(70)). The Committee agreed in regulation 14 of MARPOL Annex VI to reduce the maximum allowable sulphur oxides (SO_x) content of marine fuels from 4.5% to 3.5% in 2012, and then to 0.50% in 2020, except in Sulphur Emission Control Areas (SECAs), where the maximum sulphur content was limited to 1.0% in July 2010 and 0.10% in January 2015. Previously, regulation 14 of MARPOL Annex VI also specified that the 0.50% global limit could be delayed to 2025, depending on the outcome of a study on fuel oil availability. IMO agreed to implement the 0.50% sulphur limit in 2020 based on research showing that enough compliant, low-sulphur content fuel would be available in 2020.

2 As an alternative compliance mechanism, MARPOL Annex VI allows ships to continue using high-sulphur fuels if they are fitted with an exhaust gas cleaning system (EGCS), also known as a "scrubber". Regulations 4.1 and 4.2 of MARPOL Annex VI allow national maritime administrations to permit the use of "any fitting, material, appliance or

apparatus to be fitted in a ship or other procedures, alternative fuel oils, or compliance methods used as an alternative to those required by this Annex", if they are at least as effective in reducing emissions regulated by the Annex, and must inform IMO. In doing so, the national maritime administration "shall endeavour not to impair or damage its environment, human health, property, or resources or those of other States", in accordance with regulation 4.4 of MARPOL Annex VI. Maritime administrations inspect scrubber systems and on approval issue the SO_x Emission Compliance Certificate, in accordance with the *2021 Guidelines for Exhaust Gas Cleaning Systems* (resolution MEPC.340(77)).

3 Although scrubbers are effective at reducing SO_x from ship exhaust, using scrubbers results in higher amounts of carbon dioxide, particulate matter, and black carbon compared with using marine gas oil (MGO).¹ Using scrubbers also produces water pollution to the extent that contaminant loads from scrubber discharges exceed those of all other liquid waste streams from ships (document PPR 9/INF.22 (FOEI et al.)). The most common type of scrubber, open-loop, constantly discharges large amounts of washwater that is acidic and contains polycyclic aromatic hydrocarbons (PAHs), particulate matter, nitrates, nitrites and heavy metals including nickel, lead, copper and mercury, all of which are discharged to the aquatic environment where they can damage marine ecosystems and wildlife and worsen water quality. Closed-loop scrubbers emit the same pollutants in lower volumes, but higher concentrations. Scrubber discharges inhibit carbon dioxide uptake of the ocean, thus reducing the ability of the ocean to contribute to offsetting global climate change.²

4 Discussions within IMO regarding the use of scrubbers initially stressed the importance of ensuring that air pollution is not simply transferred to the marine environment, yet this appears to be precisely what has occurred. While intended to combat the serious problem of SO_x emissions in the burning of fuel oil, the alternative compliance mechanism has unintentionally created a new type of marine pollution from ships. The atmospheric emission of SO_x has been qualitatively converted to discharge harmful sulphur compounds, among other substances, directly into the marine environment.

5 This submission outlines how the discharge of wastes from scrubbers into the marine environment appears to raise issues of inconsistency with the law of the sea obligations of States to protect and preserve the marine environment, and the steps that should be considered to address the likely inconsistencies.

Consistency between MARPOL and UNCLOS

6 The United Nations Convention on the Law of the Sea, 1982 (UNCLOS) has specific rules concerning its relation to other conventions on the protection and preservation of the marine environment. On the one hand, paragraph 1 of article 237 of UNCLOS provides that UNCLOS is without prejudice to special conventions and agreements concerning marine environment protection concluded previously or which may be concluded in furtherance of the general principles in UNCLOS, such as MARPOL which was adopted in 1973 and 1978. On the other hand, specific obligations assumed by States under such instruments "should be carried out in a manner consistent with the general principles and objectives of this Convention" of UNCLOS (paragraph 2 of article 237 of UNCLOS).

¹ Comer, B., Georgeff, E., & Osipova, L. (2020). Air emissions and water pollution discharges from ships with scrubbers. Consult. Rep. International Council on Clean Transportation, 12-13.

² Stips, A., Bolding, K., Macias, D., Bruggeman, J., Coughlan, C., & European Commission. Joint Research Centre. (2016). Scoping Report on the Potential Impact of On-board Desulphurisation on the Water Quality in SO_x Emission Control Areas.

7 During the development of MARPOL in the 1970s, it was anticipated that this instrument would have a relationship with the future UNCLOS adopted in 1982. Article 9 (2) of the MARPOL Convention provides that "Nothing in the present Convention shall prejudice the codification and development of the law of the sea by the United Nations Conference on the Law of the Sea ...". A study commissioned by the IMO Secretariat completed in 1986 and subsequently revised and republished in 2012, mentioned that, "The application of IMO treaties should also be guided by the provisions contained in articles 311 and 237 of UNCLOS" (*Implications of the United Nations Convention on the Law of the Sea for the International Maritime Organization* (document LEG/MISC.7)). It is useful to recall that during the Third United Nations Conference on the Law of the Sea (1973-1982), the IMO Secretariat mentioned that it aimed to "ensure that no overlapping, inconsistency or incompatibility existed between UNCLOS and IMO treaties adopted between 1973 and 1982" (document LEG/MISC.7).

Pertinent UNCLOS provisions

8 In part XII, UNCLOS establishes the international legal framework for the protection and preservation of the marine environment, including the prevention of vessel-source pollution. The framework is supported by the generally accepted international rules and standards adopted in accordance with the Convention and known as rules of reference (paragraph 1 of article 211 of UNCLOS). Rules of reference provide IMO with regulatory authority, inter alia, for the prevention of pollution from ships.

9 UNCLOS establishes the general and specific obligations of States concerning the protection and preservation of the marine environment, several of which appear to be relevant to the discharge of scrubber washwater into the marine environment, including:

- .1 Article 192 provides that States have the obligation to protect and preserve the marine environment. This obligation includes a positive obligation to take measures to prevent marine pollution and a negative obligation not to degrade the marine environment.
- .2 Article 194 provides an obligation for States to take individual or joint measures to prevent, reduce and control pollution of the marine environment from any source (article 194(1)). The measures must be designed in a manner "to minimize to the fullest possible extent ... the release of toxic, harmful or noxious substances, especially those which are persistent, from land-based sources, from or through the atmosphere or by dumping" (article 194(3)(a)). This provision prescribes a general duty, thus includes the release of substances from ships, as well as from other sources. Measures to be taken by States include "pollution from vessels, in particular measures for preventing accidents and dealing with emergencies, ensuring the safety of operations at sea, preventing intentional and unintentional discharges, and regulating the design, construction, equipment, operation and manning of vessels" (article 194(3)(b)). The measures to be taken by States "shall include those necessary to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life" (article 194(5)).
- .3 Article 195 establishes an obligation for States to take measures in a manner that does not "transfer, directly or indirectly, damage or hazards from one area to another or transform one type of pollution into another" (article 195).

The interpretation of the word 'transform' refers to "the quality or nature of the pollution".³

- .4 Article 196 provides that States have an obligation to take measures to prevent, reduce and control marine pollution from technologies under their jurisdiction or control that may cause significant and harmful change (article 196(1)).
- .5 Article 211 provides that States, acting through the IMO or diplomatic conferences, "shall establish international rules and standards to prevent, reduce and control pollution of the marine environment from vessels ..." (article 211(1)).
- .6 Article 212 concerns prescriptive jurisdiction regarding atmospheric pollution, and by virtue of which State Parties have a duty to cooperate through IMO to establish global and regional rules and to regulate with respect to areas under their national sovereignty and their ships, "taking into account internationally agreed rules, standards and recommended practices and procedures" (article 212(3)). They "shall take other measures as may be necessary to prevent, reduce and control such pollution" (article 212(2)).
- .7 Article 222 provides an obligation for States to exercise enforcement jurisdiction with respect to atmospheric pollution (article 222).

Apparent inconsistencies with UNCLOS provisions

10 When the discharge of scrubber washwater as a pollutant into the marine environment is considered against the backdrop of the obligations of States Parties under UNCLOS, it appears that the permitted discharges are inconsistent with the general and specific obligations to protect and preserve the marine environment. To be clear and on face value, regulations 4 and 14 of MARPOL Annex VI are not necessarily inconsistent with UNCLOS. Rather, it is the use of scrubbers as an alternative compliance mechanism, with the consequential discharges of washwater causing pollution of the marine environment which raises concerns over inconsistencies.

11 The first inconsistency is with the article 192 obligation of States to protect and preserve the marine environment. The scrubber washwater is known to have toxic properties and effects on the marine environment. The discharge also runs counter to the legal obligation in article 194 concerning the measures that States are legally obligated to take to fully minimize the release of toxic, harmful and noxious substances, including intentional discharges. Further, the fact that there do not appear to be discharge area limitations runs counter to the article 194 requirement to protect and preserve rare or fragile ecosystems and habitats of depleted, threatened or endangered species and other forms of marine life (article 194(5)).

12 Article 196 requires States to take measures to prevent marine pollution from technologies under their jurisdiction and control. The national maritime administration certification of scrubbers as alternative compliance mechanisms to regulation 14 of MARPOL Annex VI brings scrubber technologies within the jurisdiction and control of States and further recalls the article 94(1) obligation to exercise effective jurisdiction and control over ships flying their flags.

³ S Rosenne and A Yankov (vol eds), United Nations Convention on the Law of the Sea 1982: A Commentary vol IV (Dordrecht: Nijhoff, 1991) [Virginia Commentary], at 72.

13 Under article 211, States have an obligation to establish international rules and standards to prevent, reduce and control pollution of the marine environment from vessels, including from scrubber washwater. According to article 212, States have a duty to cooperate through IMO to establish rules and to regulate atmospheric pollution from their ships and have an obligation to take other measures as may be necessary to prevent, reduce and control such pollution (and to enforce such rules as established by article 222). However, in doing so they must bear in mind the obligation in article 195 not to transform one type of pollution into another.

14 The discharge of scrubber washwater in the marine environment is also of concern to indigenous peoples who use marine areas to exercise their livelihoods and fundamental harvesting rights. Article 29 of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) states that "Indigenous peoples have a right to the conservation and protection of the environment and the productive capacity of their lands or territories and resources", and article 31, "Indigenous peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions..."⁴ Article 42 provides that "The United Nations, its bodies, including the Permanent Forum on Indigenous Issues, and specialized agencies, including at the country level, and States shall promote respect for and full application of the provisions of this Declaration and follow up the effectiveness of this Declaration". As a UN specialized agency, IMO should consider and fully implement UNDRIP and engage with its principles in the work undertaken in the committees, sub-committees, and working and correspondence groups. The UNCLOS obligation of States to protect and preserve the marine environment includes marine areas where indigenous peoples exercise their fundamental rights under international law.

Recommendations

15 On the basis of the information presented, the co-sponsors are of the view that the use of scrubbers are inconsistent with UNCLOS and should not be considered an equivalent compliance mechanism, and urge the Committee to:

- .1 consider the need for consistency of measures adopted under MARPOL with UNCLOS to uphold the international legal order for seas and oceans established by UNCLOS;
- .2 develop a prohibition on the use of scrubbers as a means of alternative compliance thereby removing practices under MARPOL which are inconsistent with the obligations of IMO Member States under UNCLOS; and
- .3 until a global ban is introduced, encourage national maritime administrations to ban the discharge of scrubber washwater within their jurisdiction and from ships registered under their flags. This is aligned with paragraph 7.4.3 of the *2022 Guidelines for risk and impact assessments of the discharge water from exhaust gas cleaning systems* (circular MEPC.1/Circ.899), which recommends the adoption of restrictions or a ban on discharging scrubber washwater in areas where the EGCS discharge water conflicts with "The conventions and regulations formulated to protect the marine environment (see UNCLOS article 195 etc.)."

⁴ United Nations Declaration on the Rights of Indigenous Peoples, GA Res A/RES/61/295 adopted on 13 September 2007.

Action requested of the Committee

16 The Committee is invited to take note of the information provided in paragraphs 6 to 14, to consider the recommendations contained in paragraph 15, and take action as appropriate.
