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WORK PROGRAMME OF THE COMMITTEE AND SUBSIDIARY BODIES

Environmental impact assessment of EGCS discharges for generic risk-based requirements adequately addressing all available technologies

Submitted by CESA

SUMMARY

Executive summary:	Document MEPC 74/14/1 (Austria et al.) proposes a new output to evaluate and develop harmonized rules and guidance on the discharge of liquid effluents from exhaust gas cleaning systems (EGCS), including possible discharge bans from ships using a specific technology. The present document suggests a framework for an independent study that would gather further information on the environmental impact of EGCS discharges in advance of any decision to take further regulatory measures and suggests that any such measures should be based on appropriate threshold levels of discharges, not on technologies. Further, it proposes to change the title of the proposed output, to reflect this.
Strategic directions, if applicable:	1 and 2
Output:	Not applicable
Action to be taken:	Paragraph 20
Related documents:	PPR 6/INF.20; MEPC 73/INF.5; MEPC 74/14/1, MEPC 74/14/7 and MEPC 74/INF.10

Introduction

1 This document is submitted in accordance with the provisions of paragraph 6.12.5 of the document on *Organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies* (MSC-MEPC.1/Circ.5/Rev.1) and provides comments on document MEPC 74/14/1 (Austria et al.).

2 Paragraph 15 of document MEPC 74/14/1 endorses the recommendation by GESAMP to develop a generalized marine environmental risk assessment and proposes that such an assessment be performed for example by the MAMPEC model (marine antifoulant model to predict environmental concentrations), which is already used for the assessment of biocides releases from anti-fouling paints and for releases of harmful substances from ballast water management systems into the marine environment.

3 PPR 6 discussed document PPR 6/INF.20 and the instruction from MEPC 73 to consider the view that the environmental benefits of reducing pollution to air should not be diminished if the discharge of washwater presents additional risks. Following the suggestion for an independent study of the environmental impacts of exhaust gas cleaning systems (EGCS) discharges, the Sub-Committee requested the Secretariat to explore the possibility of GESAMP carrying out a review of the relevant scientific literature and also overseeing a modelling study on the impacts of discharge washwater from exhaust gas cleaning systems. This document suggests the framework of such an independent study and the scope of expertise required to conduct such a study.

Background

4 The preamble of the *2015 Guidelines for exhaust gas cleaning systems* (resolution MEPC.259(68)) (hereafter 2015 EGCS Guidelines) invites Administrations to provide for collection of data as described in appendix 3. The aim of appendix 3 is to collect discharge water analysis data in order to review if there is a necessity to amend the discharge water standards based on environmental impacts, taking into account any advice by GESAMP. The Administrations should forward the collected data to the Organization.

5 Data collected according to appendix 3 of the 2015 EGCS Guidelines, as explained in paragraph 4 above, have already been submitted to this Organization in document MEPC 73/INF.5 (CESA). Results of several other discharge sampling campaigns have been forwarded to the relevant Administrations, waiting for submittal to the Organization. It is estimated that approximately 500-700 results are readily available for further assessment by the Organization. Member States and organizations are encouraged to submit data and studies they may have to the Organization for inclusion in the study.

6 In the view of CESA, the existing data available would be sufficient to form the basis of an assessment of the environmental impacts of liquid discharge from EGCS. Further sampling campaigns are therefore not considered necessary to proceed with the proposed study.

Discussion on document MEPC 74/14/1

7 CESA supports in principle the proposal of a new output to evaluate and develop harmonized guidance on the discharge of liquid effluents from EGCS. The scope and organization of this output, if established, should increase knowledge about potential hazards of discharges in relation to sea areas deserving protection with a view to developing adequate rules and guidance on EGCS discharges that are open to different technologies.

8 CESA, however, is concerned about the wording of the proposal contained in the end of paragraph 29 of document MEPC 74/14/1, which reads:

> "It is considered necessary to be able to take appropriate regulatory measures, taking into account scientific knowledge, to protect certain areas from pollution resulting from the mentioned discharges, which could also include discharge bans from ships using a specific technology."

9 CESA would like to emphasize that technical regulations should be based on scientific evidence of potential hazards in order to be open for different solutions and technologies. CESA therefore suggests that any legislative proposal should not base approval of systems on specific technologies but instead on appropriate threshold levels of discharges.

10 In consideration of the viewpoints set forward above, CESA finds that a different wording of the proposed output in document MEPC 74/14/1, paragraph 32.1 and consequential amendment to annex 1 thereof is needed. CESA proposes the output to read instead:

> "Environmental impact assessment of liquid effluents from EGCS and evaluation of any needed modification for discharge standards, including conditions and areas."

Scope for an independent study

11 As an initial step, the study should assess the results of the analytical data submitted to the Organization, in order to verify that samples of wash water are representative and have been analysed according to appendix 3 of the 2015 EGCS Guidelines/internationally accepted methods by competent laboratories, using internationally acknowledged standards/methods. Minimum criteria for acceptance/validation of a data source should be established.

12 The study may also take into account other sources of data, provided they comply with the same standards as those submitted to IMO.

13 During PPR 6, several delegations mentioned the need for a global impact assessment. It would, however, be an insurmountable task to access all possible areas properly. CESA therefore proposes to select a limited number (3) of areas for which a detailed impact assessment can be performed. The criteria for these areas should be defined by the Committee prior to initialization of the study.

14 For the representative areas selected by the Committee a number of scenarios for the use of EGCS should be analysed. CESA proposes the following scenarios:

.1 all ships use EGCS using sea water scrubbing compliant with resolution MEPC.259(68);

.2 based on the approach in the fuel availability study (MEPC 70/INF.6, section 4.3) (Secretariat), estimate the likely number of ships to use EGCS; and

.3 all ships use compliant fuel.

15 For scenarios 14.2 and 14.3 above, the fact that at least a fraction of the components in the exhaust from ships using compliant fuel will eventually end up in the sea should be taken into account, for example by using models for the distribution and reaction of exhaust gas.

16 The calculations should be based on AIS data for the selected port area/sensitive sea area and an estimated development of the sea traffic in the area for a 20-year period taking into account the fuel consumption and hence the calculated concentrations of the exhaust gases and water discharges.

17 Following the steps above, a marine environmental risk assessment of the EGCS discharges for the selected port area/sensitive sea areas should be performed, using for example the MAMPEC model. The modelling should take into account the nature of the modelled water area (depth, water exchange, existing level of pollution and other land-based sources).

18 The predicted environmental concentrations for the selected scenarios should be evaluated against relevant environmental quality standards and regulations on a short-term basis (1 year) and a long-term basis (20 years).

Organization of the work

19 CESA would recommend that the study suggested in this document be overseen by an IMO steering group and should also utilize specialist knowledge and competencies of shipbuilders and equipment manufacturers. It is recommended that the selection process, the management of the study and key stage gates monitoring be managed by the IMO steering group comprising of GESAMP and industry experts.

Action requested of the Committee

20 The Committee is invited to consider the proposals for scope and organization of an independent study on the environmental impacts of EGCS discharge set out in paragraphs 10 to 19 of this document and take action as appropriate.