INTERNATIONAL MARITIME ORGANIZATION

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AIR POLLUTION PREVENTION

Way forward to arrive at representative EGCS discharge water emission factors

Submitted by CESA

SUMMARY

Executive summary:	This document provides the Committee with considerations and recommendations required to arrive at representative EGCS discharge emission factors.
Strategic direction, if applicable:	1
Output:	1.23
Action to be taken:	Paragraph 8
Related documents:	MEPC 77/WP.8; PPR 9/WP.4; MEPC 78/9/3, MEPC 78/17 and MEPC.1/Circ.899

Introduction and background

1 This document is submitted in relation to the PPR scope of output point 1.23, "Evaluation and harmonization of rules and guidance on the discharge of discharge water from EGCS into the aquatic environment", focusing on part 1 and part 4 as identified in annex 3 to document MEPC 77/WP.8; inclusion of emission factors as an appendix to circular MEPC.1/Circ.899 on *2022 Guidelines for risk and impact assessments of the discharge water from exhaust gas cleaning systems* and/or establishing a database of substances.

2 Referring to an invitation by PPR 9 for submittal of specific proposals for inclusion of emission factors in circular MEPC.1/Circ.899 as an appendix (PPR 9/WP.4, paragraph 28), Germany submitted a proposal in document MEPC 78/9/3.

3 This submission highlights the need for a discussion on methodology for development of emission factors should those be included in the output of 1.23 either as in relation to part 1 or part 4.

Discussion

4 The emission factors presented in document MEPC 78/9/3 by Germany were not accompanied by a description of the methodology used for the arrival of the factors. Germany highlighted in their document the need for "worst-case emission factors" (paragraph 6). In the view of CESA, the Committee should discuss and agree on a methodology first before it agrees on representative emission factors. This discussion should also consider the possibility to apply a simple mean or average of data, contrary to the option of using worst-case values.

5 Such emission factors, if agreed, should reflect the actual performance of the equipment operated. It would therefore be logical that the methodology for establishing emission factors should reflect the fact that background concentration levels already present in the intake water influence the content of the discharge water. It is therefore recommended to include this in a description of the methodology to be applied.

6 Another aspect that should be considered is the number of measurements (population in statistical terms) required to arrive at representative emission factors. Especially in the case of worst-case emission factors, it must be ensured that the confidence interval is robust and not measurement outliers. Furthermore, the Committee should take into consideration that discharge emissions are fuel dependent, and fuel is not a uniform mass; it differs based on geographical extraction point, production pathways and distribution.

7 Finally, CESA recommends that submittals proposing representative emission factors should, next to a description of the methodology deployed, include the exact raw data used for the arrival of representative emission factors and should name the source. For example, it would not be appropriate submitting 200 data sets, using only 50 thereof, and not specifying which data sets have been used and which have been discarded.

Action requested by the Committee

8 The Committee is invited to consider the views and suggestions expressed in paragraphs 3 to 7 of this document.