

SUB-COMMITTEE ON POLLUTION
PREVENTION AND RESPONSE
6th session
Agenda item 11

PPR 6/11/4
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**REVIEW OF THE 2015 GUIDELINES FOR EXHAUST GAS CLEANING SYSTEMS
(RESOLUTION MEPC.259(68))**

**Comments on improving and standardizing accessibility and data presentation of
exhaust gas cleaning systems performance database records**

Submitted by CESA

SUMMARY

Executive summary: This document provides comments on the report of the Correspondence Group on Exhaust Gas Cleaning Systems with reference to paragraph 7.5 of the *2015 Guidelines for exhaust gas cleaning systems* (resolution MEPC.259(68))

Strategic direction, if applicable: 1

Output: 1.12

Action to be taken: Paragraph 6

Related documents: PPR 6/11, PPR 6/11/Add.1 and PPR 6/INF.4

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 comments on the report of the Correspondence Group on Exhaust Gas Cleaning Systems (PPR 6/11 and PPR 6/11/Add.1) and the views expressed in the group regarding data recording and processing.

2. The *2015 Guidelines for exhaust gas cleaning systems* (resolution MEPC.259(68)) (paragraph 7) require exhaust gas cleaning systems (EGCS) to be fitted with a data recording and processing device. Furthermore, paragraph 7.5 details the requirements for the device "the device should be capable of downloading a copy of the recorded data and reports in a ready useable format." Paragraph 7.5 also states "data and reports should be available to the Administration or port State authority as requested."

3 PPR 5 instructed the Correspondence Group to further refine the EGCS Guidelines. The annex to this document provides a proposal to standardize, simplify and improve accessibility to the EGCS stored data for the purposes of monitoring compliance. The proposal is not intended to displace the existing requirement for the data recording device to have the capability of downloading the stored data. In addition, the proposal seeks to provide a consistent data presentation format enabling authorities to become familiar with the outputs and their meanings in terms of verifying EGCS operation as an alternative means of compliance with regulation 14 of MARPOL Annex VI.

4 The assumption is that authorities may wish to assess and verify if the EGCS has been operated in compliance with the prevailing fuel sulphur limit in the areas that the ship has sailed. This proposal does not consider presenting parameters for purposes other than compliance verification. More detailed review of parameters is already provisioned in the requirement to download all data from the database.

5 This proposal seeks to define the overarching criteria for data inspection (e.g. a period or region of operation) then the scope of the data to be supplied and finally how it should be displayed for immediate easy viewing and verification assessment and also possibly downloading for later assessment.

Action requested of the Sub-Committee

6 The Sub-Committee is invited to consider the proposals in the annex and take action as appropriate.

ANNEX

PROPOSAL TO STANDARDIZE, SIMPLIFY AND IMPROVE ACCESSIBILITY TO THE EGCS STORED DATA FOR THE PURPOSES OF MONITORING COMPLIANCE

1 This proposal seeks to define the overarching criteria for data inspection (e.g. a period or region of operation), then the scope of the data to be supplied and finally how it should be displayed for immediate viewing for compliance verification assessment and possibly downloading for later assessment.

2 An EGCS database must store system operational data for a minimum period of 18 calendar months. Based upon that retention requirement, user access requirements do not need to extend back more than 18 calendar months from the date/time of the user access. If data is required and is in fact stored for an earlier period, access will probably require more detailed computer programming, which can be undertaken as a non-standard query, if requested by an Administration.

3 The purpose for accessing the database is to ascertain if the ship has been in compliance with emissions in sea areas that is at least equivalent to the emission resulting from the use of compliant fuel.

4 As the inspection concerns compliance, the related top tier of the enquiry should either be:

- .1 time period – VIEW INFORMATION BETWEEN SPECIFIED DATES;
- .2 geography – VIEW INFORMATION BY GPS COORDINATES;
- .3 non-compliance – VIEW INFORMATION WHERE GAS SENSOR HAS EXCEEDED LIMIT OR GAS SENSOR NOT WORKING.

5 The second tier of information relates operational data which can be used for verification and compliance data which is the measurement of the exhaust gas calculated equivalent fuel sulphur content. The following information should be reported as a minimum in tabular form:

- .1 ship's position;
- .2 EGCS Inlet water pressure;
- .3 wash water pressure;
- .4 other relevant measured parameters as specified by the EGCS supplier that will provide indication of normal operation of the system; and
- .5 wash water pH, turbidity and PAH.

6 The third tier of information concerns the way it is presented to the user. The data is collected at a frequency of 0.0035Hz and thus the data set is very large, and it may present difficulties in speedily reviewing performance and compliance. For some parameters there is an allowance for deviations from limits for short periods. So, the data presented should provide the user a choice to either select the actual values or time averaged adjusted data which has calculated the allowed averaging or other deviation adjustment factor. The proposed options for presenting the data are as follows:

- .1 The complete selected data-set displayed as rows of data reported as the average value of 10 sets of data. The purpose of providing an average of 10 sets of 0.0035Hz data is to ease the viewing and reduce the number of rows

of data. Should values of averaged data be close to the limit values there would be an option to view the individual results. The columns will contain the selected parameters. The data can be saved and exported if required. This option will be subject to cybersecurity features to protect the recording device during any data transfer.

- .2 Limits and parameters with non-conformances highlighted displayed on a line graph with x axis as time or data intervals and y axis to show the compliance parameters (e.g. fuel sulphur, pH, PAH and turbidity). The graph can be selected to show one or more compliance parameters. The x axis has the option to highlight periods and provide a higher resolution of the highlighted period down to the average value of 10 sets of data.
