

Brussels, 6 December 2019 (OR. en)

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## **'I' ITEM NOTE**

From:	General Secretariat of the Council	
To:	Permanent Representatives Committee (Part 1)	
No. Cion doc.:	Cion doc.: 14492/19	
No. prev. doc.:	14604/19	
Subject:	IMO – Draft Union submission to be submitted to the 7th session of the Sub-Committee on Pollution Prevention and Response (PPR 7) of the IMO in London from 17 –21 February 2020 concerning aspects to consider for the evaluation and the development of harmonized rules and guidance on discharge waters from Exhaust Gas Cleaning Systems (EGCS)	
	<ul><li>Endorsement</li></ul>	

## **INTRODUCTION**

1. On 21 November 2019, the <u>Commission</u> transmitted to the Council a Staff Working Document containing a draft submission to the 7th session of the Sub-Committee on Pollution Prevention and Response (PPR 7) of the International Maritime Organization (IMO) concerning aspects to consider for the evaluation and the development of harmonized rules and guidance on discharge water from Exhaust Gas Cleaning Systems. The deadline for transmitting the draft submission to the IMO Secretariat is 13 December 2019.

14816/19 AV/pl 1
TREE.2.A **LIMITE EN** 

- 2. Regulation 4 of Annex VI to the International Convention for the Prevention of Pollution from Ships (MARPOL) allows the use of equivalent devices, in particular for the application of Regulation 14 reducing the sulphur content of marine fuels. As an alternative to the use of low sulphur fuels, exhaust gas cleaning systems (EGCS) have been developed and used by ships to achieve equivalent reduction of sulphur oxide emissions. However, the knowledge on the composition and harmfulness to the marine environment of liquid effluents discharged by the majority of these systems into ports and sensitive sea areas leads States to take local or regional restriction or prohibition measures.
- 3. Therefore, the Member States and the Commission proposed the inclusion of a new output on the work programme of PPR to the 74th session of the IMO Marine Environment Committee (MEPC 74) in order to evaluate and harmonize the development of rules and guidance on the discharge of liquid effluents from EGCS, including conditions and areas<sup>1</sup>.
- 4. MEPC 74 approved in principle the new output, identified the need for more scientific research and instructed the IMO Secretariat to liaise with the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) to assess the state-of-the-art scientific evidence relating to the environmental impact of water discharges from EGCS.
- 5. The purpose of the draft submission is to outline aspects for consideration by GESAMP and to propose questions pointing at knowledge-based areas where further clarification and scientific support is required in order to develop harmonized rules.

## WORK WITHIN THE COUNCIL

- 6. The draft submission was examined by the <u>Shipping Working Party</u> at its meetings on 22 and 29 November and 6 December 2019. Based on the discussions at that last meeting, minor changes were made to the draft submission in order to reach consensus. It was also agreed that the Presidency would be allowed to indicate at the time of transmission that the document may be released to the public by the IMO secretariat prior to PPR 7.
- 7. However, there is no agreement on who should submit the draft submission. The <u>Commission</u> maintains the view that the draft submission should be made by "the European Commission on behalf of the European Union", while the <u>Member States</u> consider that it should be made by the Member States and the European Commission.

14816/19 AV/pl 2
TREE.2.A **LIMITE EN** 

Doc. 5879/19 (IMO doc. MEPC 74/14/1).

8. Given the urgency and importance of the matter, it was agreed at working party level to propose to transmit the submission in the name of the Member States and the European Commission, while taking good note of the position of the Commission.

# **CONCLUSION**

- 9. In the light of the above, the <u>Permanent Representatives Committee</u> is invited to
  - endorse the text of the draft submission in the annex, with a view to its transmission by the Presidency to the International Maritime Organization by 13 December 2019.

SUB-COMMITTEE ON POLLUTION PREVENTION AND RESPONSE 7th session Agenda item 12

PPR 7/12/xx XY December 2019 Original: ENGLISH

Pre-session public release: ⊠

# EVALUATION AND HARMONIZATION OF RULES AND GUIDANCE ON THE DISCHARGE OF LIQUID EFFLUENTS FROM EGCS INTO WATERS, INCLUDING CONDITIONS AND AREAS

Aspects to consider for the evaluation and development of harmonized rules and guidance on discharge waters from exhaust gas cleaning systems

Submitted by Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, the United Kingdom and the European Commission

### **SUMMARY**

Executive summary: This document outlines aspects for consideration by GESAMP, and

the Sub-Committee, contributing to the work towards the evaluation and harmonization of rules and guidance on discharge waters from Exhaust Gas Cleaning Systems (EGCS), including conditions and areas. Given the availability of different studies and data on the impact of EGCS operation on the environment, in particular of discharge waters from open-loop mode operation, and the identified need to conclude on the required risk assessment framework, the present document proposes questions pointing at knowledge-based areas where further clarification and scientific

support is required in order to develop harmonized rules.

Strategic direction, if 1 and 2

applicable:

Output:

Action to be taken: Paragraph 9

Related documents: MEPC 73/INF.5; PPR 6/INF.20; MEPC 74/14/1, MEPC 74/14/7,

MEPC 74/14/8, MEPC 74/14/9, MEPC 74/INF.10, MEPC

74/INF.24, MEPC 74/INF.27

### **Background**

- 1 MEPC approved, in principle, at its 74th session, a new output on "Evaluation and harmonization of rules and guidance on the discharge of liquid effluents from EGCS into waters, including conditions and areas" in the 2020-2021 biennial agenda of the PPR Sub-Committee and the provisional agenda for PPR 7, with a target completion year of 2021, and referred documents MEPC 74/14/1, MEPC 74/14/7, MEPC 74/14/8, MEPC 74/14/9, MEPC 74/INF.10, MEPC 74/INF.24 and MEPC 74/INF.27 to PPR 7 for further consideration, with a view to refining the title and the scope of the output.
- The Committee further identified the need for more scientific research and instructed the Secretariat to liaise with GESAMP and to establish a task team of experts to be designated to assess the state-of-the-art scientific evidence relating to the environmental impacts of water discharges from EGCS, with a view to reporting its findings to PPR 7.
- 3 PPR 7 would also be expected to complete the ongoing revision of the IMO 2015 EGCS Guidelines (IMO Resolution MEPC.259(68)). This revision has focused on the structure, clarification of principles and terminology as well as on the improvement of the certification framework principles and requirements. In the absence of an independent assessment of relevant scientific evidence, section 10 of the EGCS guidelines on discharge waters criteria has been overall kept unaltered, having undergone only a minor revision including editorials and provisions for discharge waters from temporary storage.
- The assessment to be undertaken by the GESAMP task team should cover environmental risk assessment connected to EGCS water discharges based on available analyses and results from existing studies<sup>2</sup>, including but not limited to those outlined in earlier submissions to the Committee and the Subcommittee, the results from simulations for predicting the concentrations and impacts of target substances including their combined effects as well as their accumulation in waterbodies, including in sediments and biota.<sup>3</sup>
- In view of the entering into force of the global sulphur cap in 2020, this document suggests that the subsequent work to be carried out under the new output should be organized taking into account the urgency to address the relevant environmental concerns by the timely setting of a harmonized regulatory framework with respect to operation of EGCS $_{7}$  in specific conditions and areas with taking due consideration to account of early movers who have prepared for the 2020 sulphur limit.

### Introduction

This document identifies two possible tasks in the context of EGCS discharge waters. The first task could be to compile existing data and draw objective conclusions from the different studies based on scientific criteria in order to provide technical data that could be used in the context of any potential development of a further regulatory framework. The results from the first

14816/19 AV/pl 5
ANNEX TREE.2.A **LIMITE EN** 

Existing studies are referred to in earlier submissions to MEPC and PPR indicated in the section 'Related documents' on page 1 of this document. In addition to those, the following studies have been recently published:

a. "Scrubber Washwater Survey", 2019, study carried out by the Federal Maritime and Hydrographic Agency (BSH, Germany), funded by the German Environment Agency (UBA, Germany). Only preliminary results were already submitted to the Organization (PPR 6/INF.20, 14 December 2018 referred to in document MEPC 74/14/1)

b. Closing the Loop - Environmental analysis of marine exhaust gas scrubbers on two Stena Line ships - IVL Swedish Environmental Research Institute 2018 - Funded by: European Commission via Connecting Europe Facility (CEF) and the SIVL foundation

Although some studies have been listed here, the decision on which to consider and how to prioritise them should be at the discretion of the GESAMP task team, in view of its expertise.

task should be made available to the Sub-Committee soon in view of the 2020 global sulphur cap implementation.

- The second task could be to use the compiled data to proceed with further investigation to inform an appropriate response to potential concerns that may be identified in the first task. It is suggested that GESAMP identifies and oversees reference modelling studies on the environmental impact of the discharge waters from EGCS. The study should also take into account the extent to which pollutants in discharge waters are likely to accumulate in sediment and biota, the influence of currents on the location of such accumulation and of different circumstances and scenarios. The task should be completed by the end of 2021, including, if necessary, some limited field monitoring to verify conclusions.
- 8 In order to adequately evaluate the environmental impact of EGCS technology, it is appropriate to define some key questions set out in the Annex to this document to be answered in order to address the concerns expressed in document MEPC 74/14/1. The questions are directly or indirectly linked to previously identified areas of concern and therefore represent specific targets/objectives. They are non-exhaustive, open to discussion and aimed at contributing directly to GESAMP's task and helping to focus the work ahead.

### **Action requested of the Sub-Committee**

- 9 The Sub-committee is invited to consider the annex to this document taking into account paragraphs 6 to 8 above, and, with the support of GESAMP's scientific advice, take action as appropriate on the following aspects:
  - A. Assessment of available information, studies, research work, data on the environmental impact of EGCS discharge waters into the marine environment, and
  - B. Evaluation and harmonization of rules and guidance on discharge water from EGCS, including conditions and areas.

ANNEX TREE.2.A LIMITE EN

	ssment of available information, studies, research work, conmental impact of EGCS discharge water into the marine	
Key T	arget Question	References
EGCS	S Discharge Water – Composition	
1	What data are available on actual composition and pollutants found in EGCS discharge water?	
2	Where sampling & analysis of EGCS discharge water have been reported, have the sampling conditions been thoroughly described, in terms of engine load, discharge water flow-rate, sampling point, inlet conditions?	
3	Were methodologies for sampling & analysis applied in the different available studies adequate to ensure the quality, repeatability and reproducibility of the results?	
4	Where analytical results from several specific samples are reported, are the findings with regard to the occurrence and concentration of different pollutants consistent?	
5	How can the different studies be assessed with regard to their reliability, independence and soundness of the implemented methodology?	MEPC 73/INF.5
		PPR 6/INF.20
		MEPC 74/INF.27
		MEPC 74/INF.24
Local	-Specific Data/ Modelling	
6	Are there validated Environmental Risk models which can be used/adapted for the evaluation of the environmental impact of EGCS discharge water into the marine environment?	
7	Considering the available data on local-specific circumstances (geographical, hydrological, geological etc.) that could influence dispersion, accumulation and impacts, the existing models, calculation methodologies and experience, what is the most suitable model for environmental risk assessment of EGCS discharge water?	
Onbo	ard Monitoring	
8	Are current technologies for monitoring pollutants in discharge water sufficiently developed, with a sufficiently wide scope and fit for purpose?	PPR 6/INF.20 PPR 6/11/2
	Are the sensors for pH, PAH, and turbidity that are currently deployed yielding verifiable, repeatable and	

	reproducible results?	
9	Is turbidity an adequate indicator of heavy metals in discharge water?	
	Are mature technologies available for onboard monitoring of heavy metal concentrations per se in EGCS discharge water?	
10	Taking into account the existing EGCS discharge water monitoring provisions/requirements, what other pollutants should be considered in the assessment of scrubber water?	
	How can cumulative effects be taken into account?	

Evaluation and harmonization of rules and guidance on discharge water from EGCS, including conditions and areas			
Key	Target Question	References	
11	Are the current EGCS discharge water criteria still fit for purpose in the light of the data obtained? In particular, do they sufficiently consider the total load of pollutants discharged, the potential for them to accumulate in the water environment, in particular sediments and biota, and their combined effects?		
12	Are the currently available data on environmental risks from EGCS discharge water, in specific areas, ports, harbours or shipping lanes, taking into account different scenarios, sufficient to feed a Risk Assessment model and yield conclusions on areas at particular risk?	MEPC74/INF.24	
13	What are the potential control options that can be foreseen in order to mitigate the specific environmental risks associated with EGCS discharge water?		
14	A number of EGCS installations operating in open-loop mode have no water treatment plant installed. Bearing in mind that these installations are still able to comply with the discharge criteria, can current EGCS Guidelines still be considered fit for purpose? Assuming a simple pollutant mass balance, what criteria should apply to take account of the total load of pollutant?	MEP73/INF.5 PPR6/INF.20 MEPC74/INF.27 MEPC74/INF.24	
15	On the basis of a specific Risk Assessment model, is it possible to establish a relationship for specific model areas between the EGCS discharge water	PPR 6/INF.20	

	pollutant concentrations and the toxicity Threshold?	MEPC 74/14/1
16	What are the options available for the harmonization of rules and guidance on the water discharges from EGCS, including conditions and areas, taking the following factors into consideration:	
	<ul> <li>a. Results of the risk assessment</li> <li>b. Availability of technical safeguards/technology/facilities on board ships and in ports</li> </ul>	
	<ul> <li>c. Potential need to create zero-discharge zones in specific areas</li> <li>d. Relevance of the EGCS discharge water criteria</li> </ul>	
	e. Consequential need to set evidence-based rules on mitigation technologies and prohibitions	