ANNEX 3

RESOLUTION MEPC 307(73)
(adopted on 26 October 2018)

2018 GUIDELINES FOR THE DISCHARGE OF EXHAUST GAS RECIRCULATION (EGR) BLEED-OFF WATER

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution from ships,

RECALLING ALSO that, at its fifty-eighth session, it adopted, by resolution MEPC.176(58), a revised MARPOL Annex VI (hereinafter referred to as "MARPOL Annex VI") and, by resolution MEPC.177(58), a revised Technical Code on Control of Emission of Nitrogen Oxides from Marine Diesel Engines (hereinafter referred to as the "NO_X Technical Code 2008"),

NOTING regulation 13 of MARPOL Annex VI which makes the NO_X Technical Code 2008 mandatory under that Annex,

NOTING ALSO that the use of NO_X-reducing devices is envisaged in the NO_X Technical Code 2008 and that exhaust gas recirculation (EGR) systems are such NO_X-reducing devices for compliance with the Tier II and/or Tier III NO_X limit,

RECOGNIZING the need to develop guidelines for the discharge of EGR bleed-off water,

HAVING CONSIDERED, at its seventy-third session, draft guidelines for the discharge of EGR bleed-off water, prepared by the Sub-Committee on Pollution Prevention and Response, at its fifth session,

1 ADOPTS the *2018 Guidelines for the discharge of exhaust gas recirculation (EGR) bleed-off water*, as set out at annex to the present resolution;

2 INVITES Administrations to take the annexed Guidelines into account in developing provisions for regulating the discharge of EGR bleed-off water;

3 REQUESTS Parties to MARPOL Annex VI and other Member Governments to bring the annexed Guidelines to the attention of shipowners, ship operators, shipbuilders, marine diesel engine manufacturers and any other interested parties;

4 AGREES to keep these Guidelines under review in light of experience gained with their application.

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1 INTRODUCTION

1.1 Regulation 13.5 of MARPOL Annex VI requires marine diesel engines to meet the Tier III NO_X emission levels when operating in a NO_X Tier III emission control area in accordance with the provisions in regulations 13.5.1 and 13.5.2.

1.2 One method for reducing NO_X emissions is to use Exhaust Gas Recirculation (EGR), which is an internal engine process resulting in a NO_X reduction which will meet the requirements of the regulation. By means of this process, condensate of exhaust gas will be generated and discharged as bleed-off water, which should be handled differently depending on the fuel oil sulphur content. EGR may also be used as a Tier II compliance option.

1.3 These Guidelines cover the discharge of EGR bleed-off water. They are recommendatory in nature; however, the Administrations are invited to base their implementation on these Guidelines.

2 GENERAL

2.1 Purpose

The purpose of these Guidelines is to specify requirements for the discharge to the sea of bleed-off water when using EGR.

2.2 Application

These Guidelines should apply to a marine diesel engine fitted with an EGR device having a bleed-off water discharge arrangement, for which the EIAPP Certificate is first issued on or after 1 June 2019. It should be noted that any discharge of oil or oily mixtures into polar waters is prohibited by the Polar Code (see also paragraphs 3.1 and 3.2 of these Guidelines).

2.3 Definitions

2.3.1 "Bleed-off water" means water to be discharged directly, or via a holding tank, to the sea from an EGR water treatment system.

2.3.2 "EGC" means exhaust gas cleaning.

2.3.3 "EGCS Guidelines" means the *2015 Guidelines for exhaust gas cleaning systems* (resolution MEPC.259(68), as may be amended).

2.3.4 "EGR record book" means a record of the maintenance and servicing of the monitoring equipment required by these Guidelines. This may be met by following the relevant requirements of the EGCS Guidelines. This record would include the date, time, location and quantity of residues delivered ashore from the EGR water treatment system or may be recorded in the EGCS Record Book.

2.3.5 "Manual for EGR bleed-off discharge system" means the manual containing the system description, discharge limits and the relevant items required for Onboard Monitoring Manual (OMM) in the EGCS Guidelines or the Revised Guidelines.

2.4 Required documents

The EGR record book and manual for EGR bleed-off discharge system should be approved by the Administration. The following documents should be retained on board the ship as appropriate and should be available for surveys as required:

.1 manual for EGR bleed-off discharge system;

.2 certificates for type approval of oil content meters (15 ppm alarm);

.3 operating and maintenance manuals of oil content meters (15 ppm alarm); and

.4 EGR record book.

3 DISCHARGE OF EGR BLEED-OFF WATER INTO THE SEA

3.1 Bleed-off water when using fuel oil not complying with the relevant limit value in regulation 14 of MARPOL Annex VI

3.1.1 The bleed-off water discharged to the sea from an EGR water treatment system may or may not be combined with the discharge water from an EGC system. In either case, this discharge to the sea should be documented, monitored and recorded, as appropriate, in accordance with the relevant requirements of the EGCS Guidelines. Upon request, the Administration should be provided with bleed-off water samples according to appendix 3 of the EGCS Guidelines, as applicable.

3.1.2 Bleed-off water which is retained onboard in a holding tank should not be discharged to the sea, except when:

.1 the ship is en route[1] and outside polar waters,[2] ports, harbours or estuaries; and

.2 the bleed-off water discharged meets the provisions of paragraph 3.1.1.

3.2 Bleed-off water when using fuel oil complying with the relevant limit value in regulation 14 of MARPOL Annex VI

3.2.1 In case the EGR system is in operation and the sulphur content of the fuel oil used for the engine complies with regulation 14 of MARPOL Annex VI, the discharge of bleed-off water should meet the requirements of paragraph 3.1, unless the following conditions are satisfied:

.1 the ship is en route[1] outside polar waters,[2] ports, harbours or estuaries;

.2 the sulphur content of the fuel oil used for the engine when the EGR system is in operation complies with the relevant requirements of regulation 14 of MARPOL Annex VI;

.3 the oil content meter is type approved in accordance with the annex of resolution MEPC.107(49), as amended;

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[1] Refer to Unified Interpretation to regulation 15.2.1 of the revised MARPOL Annex I (MEPC 55/23, annex 18).

[2] Refer to the *International Code for Ships Operating in Polar Waters* (Polar Code) (resolutions MEPC.264(68) and MSC.385(94)).

.4 the oil content of the bleed-off water discharge and 15 ppm alarm is continuously monitored and recorded; and

.5 the oil content of the discharge does not exceed 15 ppm.

3.2.2 When the EGR system is operated in polar waters,[2] ports, harbours or estuaries, the discharge of bleed-off water to the sea should comply with section 3.1.

3.2.3 Bleed-off water which is retained on board in a holding tank should not be discharged to the sea, except when:

.1 the ship is en route[1] and outside polar waters,[2] ports, harbours or estuaries; and

.2 the bleed-off water discharged meets the provisions of paragraph 3.2.1.

4 RESIDUES FROM EGR WATER TREATMENT SYSTEMS

4.1 Residues from EGR water treatment systems should be delivered ashore to adequate reception facilities. Such residues should not be discharged to the sea or incinerated on board.

4.2 Each ship fitted with an EGR unit should record the storage and disposal of bleed-off water residues in an EGR record book, including the date, time and location of such storage and disposal.

5 BLEED-OFF WATER ADDITIVES

5.1 In case additives are used for enhancing the bleed-off water quality, an assessment of the additive should be performed and documented unless the below substances are used and documented with a Material Safety Data Sheet:

.1 neutralization agent (caustic substance), such as Sodium Hydroxide (NaOH) or Sodium Carbonate (Na_2CO_3); and

.2 flocculants, which are used for marine approved oily-water separating equipment.

5.2 For those technologies which make use of chemicals, additives, preparations or create relevant chemicals, not including those in paragraph 5.1, in situ, there should be an assessment of the bleed-off water additives. The assessment could take into account relevant guidelines such as the *Procedure for approval of ballast water management systems that make use of active substances (G9)* (resolution MEPC.169(57)), and, if necessary, additional bleed-off water discharge criteria should be established.

6 SURVEY AND CERTIFICATION

The bleed-off discharge system and the EGR record book should be subject to survey on installation and at initial, annual/intermediate and renewal surveys by the Administration. The bleed-off discharge system and the EGR record book may also be subject to inspection by port State control.

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