INTERNATIONAL MARITIME ORGANIZATION

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Agenda item 4

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PREVENTION OF AIR POLLUTION FROM SHIPS

Control of NOx emission from existing marine diesel engines

Submitted by Denmark

SUMMARY	
Executive summary:	This document comments on the outcome of BLG 12 regarding regulation of NOx emissions from engines installed on vessels built prior to 1 January 2000 that have not undergone a major modification since that date
Strategic direction:	7.3
High-level action:	7.3.1
Planned output:	7.3.1.1
Action to be taken:	Paragraph 14
Related documents:	BLG-WGAP 2/2/8, BLG-WGAP 2/2/13, BLG-WGAP 2/WP.1; BLG 12/WP.6, BLG 12/6/24 and MEPC 57/4/23

1 This document provides comments on MEPC 57/4/23 and is submitted in accordance with paragraph 4.10.5 of the Committees' Guidelines (MSC-MEPC.1/Circ.1) and the relaxed deadline for comments documents on the air pollution item to MEPC 57 with prior authorization of the MEPC Chairman following consultations with the Secretariat in line with paragraph 4.12 of the Committees' Guidelines.

Introduction

2 BLG 12 drafted possible regulation of NOx emissions from existing (pre-2000) engines by developing two options: 1) A standard applying to all engines of a given size and age and 2) An approach based on an upgrade-kit being commercially available. This document presents comments on the two options.

Engines to be covered by the regulation for existing engines

3 Denmark is in favor of Option 1, where the number of engines to be regulated is limited to a subset of engines by cylinder combustion volume or alternatively by rated maximum power.

This will assure the greatest emission benefit, with the least engines affected. At the same time other measures should be introduced in order to ensure that engines meeting the emission requirements are not put at a competitive disadvantage.

4 A range of engines with different cylinder numbers exist. These engines have similar emission characteristics, and the technology for meeting the new regulation will be similar. This technology could also be developed for engines in the smaller end of the engine model range.

5 For this reason, Denmark favours an approach where engines with a cylinder compression volume of [30/60] litres or more are covered by the new regulation.

6 Denmark considers engines on ships delivered between 1990 and 1999 to be an appropriate range of engines, as this represents newer engines, where the possibilities for finding test engines with similar setup are most likely.

Comments to the kit approach

7 In case of a kit based approach, Denmark shares the view expressed during the deliberations by the Sub-Committee that economic incentives would be necessary to drive the development and application of such kits. If an engine manufacturer makes a kit available without some kind of economic incentive to the ship, it will penalize the costumers of the specific engine make.

8 Denmark is of the opinion that the emission limit for engines covered by the kit approach, should be similar to the current Tier I limits. This will ensure that the development work already undertaken by the engine manufacturers can be utilized.

9 In the draft text for the amended Annex VI, it is proposed that the engine designer should approve the proposed kit, if an independent manufacturer would suggest and manufacture a kit. Denmark supports this position, ensuring the safest introduction.

Principles for certification of existing engines

10 Denmark submitted a paper (BLG-WGAP 2/2/13) to the second intersessional meeting on Air Pollution in Berlin, addressing the need for a simplified approach for certifying existing engines and for a simplified existing engine technical file called the 'engine emission document for pre-2000 engines.'

11 Due to the complexity of the mix of different engine types, models and manufacturers resulting in different emission characteristics, it is important that certification as well as documentation for existing engines is kept at a manageable, pragmatic level. This will require the use of constructed emission data, although based on tests on the same engine type, as documentation for the emission characteristic. A similar principle was proposed introduced as amendment to the NTC in Chapter 2.2.5*bis* (BLG-WGAP 2/2/8 or BLG-WGAP 2/WP.1).

12 Further, it is assumed that the simplification of the certification process will utilize an 'extended' group concept for the existing engines, similar to the already existing group concept in the NTC for new engines.

13 Denmark is of the opinion that procedures for the certification of existing (pre-2000) engines should be developed even if the Committee should agree on not setting a mandatory standard for existing engines. The procedures could be used by flag States as a framework for future incentive schemes in order to promote existing engines that complies with Tier I.

Action requested of the Committee

14 The Committee is invited to consider the proposals and take action as appropriate.