INTERNATIONAL MARITIME ORGANIZATION

E

MARINE ENVIRONMENT PROTECTION COMMITTEE
70th session
Agenda item 5

MEPC 70/INF.12
23 June 2016
Original: ENGLISH

Air Pollution and Energy Efficiency

Study on Fuel Oil Quality

Submitted by INTERTANKO

SUMMARY

Executive summary:	This document provides the report on a study commissioned by INTERTANKO to Lloyd's Register Marine' Fuel Oil Bunker Analysis and Advisory Services (FOBAS) on marine fuel quality delivered to ships based on test results and investigates the causes and consequences resulting in the delivery of off-specification fuels.
Strategic direction:	7.3
High-level action:	7.3.2
Output:	7.3.2.1
Action to be taken:	Paragraph 9
Related documents:	MEPC 69/5/3; MEPC 69/21

Introduction

1. In order to assist the Committee's ongoing development of revision of measures and procedures aimed to improve quality control of marine fuels delivered to ships, INTERTANKO commissioned a review to Lloyd's Register Marine' Fuel Oil Bunker Analysis and Advisory Services (FOBAS) to explore more insight information on their factual and statistical experience with tests on fuels delivered to ships.

2. This review was based on FOBAS findings on fuel quality data covering the 6 month period between 1 January and 30th June 2015. These findings were then compared to the data gathered for the previous 30 month period to achieve a general representation of the data analysis.

3. The review seeks to set the marine fuel quality issue into the context and to factually demonstrate that, while the majority of fuels as supplied are of acceptable quality at that stage there is nevertheless a significant number of instances where there has been a failure to have the necessary required quality control in place resulting in the delivery of off-specification fuels and hence exposing the ship to the potential consequences of that failure.

4. The reality of current marine fuel supply chain and procedures is that the ship only receives the fuel that is actually delivered; not necessarily that as ordered by the user or that as intended by the supplier. Therefore, as an important starting point to the satisfactory use of a fuel it needs to be actually delivered to the ship meeting the quantified limits of the applicable specification.

5. Since given the commercial and operational realities and apart from in the most extreme cases, a fuel once loaded onboard a ship has to be used. However, there are a number of additional factors, mainly related to the nature of the components used in the production of that fuel, which are not readily quantified or capable of verification at the time of delivery which can result in serious operating consequences, e.g. a catastrophic machinery failure.

6. While Appendixes I and II of the study give statistical reports on the off-specification fuels for the period considered, Appendix IV provides information on actual damages and failures on ships' equipments as a direct consequence of off-specification fuels.

7. Therefore, fuel suppliers cannot simply consider marine fuel as an amorphous, uniform, commodity but must have in place robust and actually implemented quality control systems which ensure that the fuels they supply are comprised of acceptable components, homogenous and within specification at the point of delivery.

8. In summary, the main findings of the study are:

.1 There remains a significant risk of a ship receiving off-specification fuel. From the FOBAS data over the first half of 2015, this risk over that period was of the order of 4 – 5 bunkerings out of every 100.

.2 This off-specification risk is slightly greater in respect of residual fuels (4.7%) as opposed to distillates (4.2%).

.3 With residual fuels there remains a clear risk that off-specification will be in respect of either asphaltene stability or abrasive content with serious implications for the usability of that fuel.

.4 For distillate fuels the major risk is that the sulphur content will not meet statutory requirements.

.5 On occasions, incidents of unusual deleterious extraneous material in fuels as supplied are encountered. A particular problem with this being that practically, from the receiver's perspective, it can only be investigated once the problem has manifested itself.

.6 In assessing this 2015 data over a three year period going back to 2012 there is a noticeable consistency in these findings. The only marked difference being that, with the change of the ECA-SOx limit from 1.00% to 0.10% from 1 January 2015, the low sulphur compliance issue has now shifted away from the residual fuels to the distillates where it was already an on-going concern.

Action requested of the Committee

9. The Committee is invited to note the information and findings provided in this document.