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MSC-MEPC.2/Circ.18  
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**GUIDELINES FOR THE SAMPLING OF FUEL OIL FOR DETERMINATION OF COMPLIANCE  
WITH MARPOL ANNEX VI AND SOLAS CHAPTER II-2**

- 1 The Marine Environment Protection Committee, at its eighty-first session (18 to 22 March 2024), and the Maritime Safety Committee, at its 108th session (15 to 24 May 2024), recognizing the need to establish an agreed method to obtain a representative sample of the fuel oil for combustion purposes delivered to and intended for use on board a ship, approved the *Guidelines for the sampling of fuel oil for determination of compliance with MARPOL Annex VI and SOLAS chapter II-2*, as set out in the annex\*.
- 2 Member Governments and international organizations are invited to bring the annexed Guidelines to the attention of Administrations, recognized organizations, port authorities, shipowners, ship operators and other parties concerned.

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\* MEPC 81 agreed to revoke resolution MEPC.182(59) on 2009 *Guidelines for the sampling of fuel oil for determination of compliance with the revised MARPOL Annex VI* when this joint MSC-MEPC circular is issued.



## ANNEX

### GUIDELINES FOR THE SAMPLING OF FUEL OIL FOR DETERMINATION OF COMPLIANCE WITH MARPOL ANNEX VI AND SOLAS CHAPTER II-2

#### 1 Preface

The primary objective of these Guidelines is to establish an agreed method to obtain a representative sample of the fuel oil delivered to, and intended for use on board, a ship. That representative sample is the MARPOL delivered sample, as defined in regulation 2.1.22 of MARPOL Annex VI. Samples should be drawn in a safe manner under all circumstances.

#### 2 Introduction

2.1 The basis for these Guidelines is regulation 18.5.1 of MARPOL Annex VI, which provides that for each ship subject to regulations 5 and 6 of that Annex, details of fuel oil delivered to, and used on board, that ship, shall be recorded by means of a bunker delivery note that shall contain at least the information specified in appendix V of that Annex. In accordance with regulation 18.8.1 of MARPOL Annex VI, that bunker delivery note shall be accompanied by a representative sample of the fuel oil delivered ("MARPOL-delivered sample" as defined by regulation 2.1.22 of that Annex).

2.2 In addition, these Guidelines are intended to assist in the implementation of the flashpoint-related provisions in SOLAS regulation II-2/4, especially for confirming cases where oil fuel not complying with SOLAS regulation II-2/4.2.1 was delivered.

2.3 This sample is to be used solely for determination of compliance with MARPOL Annex VI and/or SOLAS chapter II-2.

#### 3 Definitions

For the purpose of these Guidelines:

3.1 *Supplier's representative* is the individual from the bunker tanker who is responsible for the delivery and documentation or, in the case of deliveries direct from the shore to the ship, the person who is responsible for the delivery and documentation.

3.2 *Ship's representative* is the ship's master or officer in charge who is responsible for receiving bunkers and documentation.

3.3 *Representative sample* is a product specimen having its physical and chemical characteristics identical to the average characteristics of the total volume being sampled.

3.4 *Primary sample* is the representative sample of the fuel delivered to the ship collected throughout the bunkering period obtained by the sampling equipment positioned at the bunker manifold of the receiving ship.

3.5 *Retained sample* is the representative sample in accordance with regulation 18.8.1 of MARPOL Annex VI, of the fuel oil delivered to the ship derived from the primary sample. The retained sample is intended to be used solely as the MARPOL-delivered sample as defined in regulation 2.1.22 of MARPOL Annex VI and the representative sample as defined in SOLAS regulation II-2/3.60, for determination of compliance with SOLAS chapter II-2.

3.6 For the purpose of these Guidelines, *fuel oil* is as defined in regulation 2.1.14 of MARPOL Annex VI, including oil fuel as defined in regulation 1 of MARPOL Annex I for the application of SOLAS regulation II-2/4.2.1.

#### **4 Sampling methods**

4.1 The primary sample should be obtained by one of the following methods:

- .1 manual valve-setting continuous-drip sampler; or
- .2 time-proportional automatic sampler; or
- .3 flow-proportional automatic sampler.

4.2 Sampling equipment should be used in accordance with manufacturer's instructions, or guidelines, as appropriate.

4.3 The personnel taking the primary sample and preparing the retained sample should be familiar with the contents of these Guidelines and the use of the sampling equipment.

4.4 The primary sample should be drawn at the bunker manifold of the receiving ship witnessed by a ship's representative and supplier's representative.

#### **5 Sampling and sample integrity**

5.1 A means should be provided to seal the sampling equipment throughout the period of supply.

5.2 Attention should be given to:

- .1 the form of set up of the sampler;
- .2 the form of the primary sample container;
- .3 the cleanliness and dryness of the sampler and the primary sample container prior to use; there should be no traces of low-flashpoint solvents used to clean the equipment as this can contaminate the sample;
- .4 the setting of the means used to control the flow to the primary sample container; and
- .5 the method to be used to secure the sample from tampering or contamination during the bunker operation.

5.3 The primary sample receiving container should be attached to the sampling equipment and sealed so as to prevent tampering or contamination of the sample throughout the bunker delivery period.

## **6 Sampling location**

6.1 For the purpose of these Guidelines, a sample of the fuel oil delivered to the ship should be obtained at the receiving ship's inlet bunker manifold and should be drawn continuously throughout the bunker delivery period.\*

## **7 Retained sample handling**

7.1 The retained sample container should be clean and dry.

7.2 Immediately prior to filling the retained sample container, the primary sample quantity should be thoroughly agitated to ensure that it is homogeneous.

7.3 The retained sample should be of sufficient quantity to perform the tests required but should not be less than 600 ml. The container should be filled to 90% ± 5% capacity and sealed.

## **8 Sealing of the retained sample**

8.1 Immediately following collection of the retained sample, a tamper-proof security seal, with a unique means of identification, should be installed by the supplier's representative in the presence of the ship's representative. A label containing the following information should be secured to the retained sample container:

- .1 location at which, and the method by which, the sample was drawn;
- .2 date of commencement of delivery;
- .3 name of bunker tanker/bunker installation;
- .4 name and IMO number of the receiving ship;
- .5 signatures and names of the supplier's representative and the ship's representative;
- .6 details of seal identification; and
- .7 product name as per appendix V of MARPOL Annex VI.

8.2 To facilitate cross reference details of the seal, identification should also be recorded on the bunker delivery note.

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\* The phrase "be drawn continuously throughout the bunker delivery period" in paragraph 6 of the Guidelines should be taken to mean continuous collection of drip sample throughout the delivery of fuel oil covered by each bunker delivery note. In case of receiving an amount of fuel oil necessitating two or more delivery notes, the sampling work may be temporarily stopped to change primary sample container and then resumed, as necessary.

## **9 Retained sample storage**

9.1 The retained sample should be kept in a safe storage location, outside the ship's accommodation, where personnel would not be exposed to vapours which may be released from the sample. Care should be exercised when entering a sample storage location.

9.2 The retained sample should be stored in a sheltered location where it will not be subject to elevated temperatures, preferably at a cool/ambient temperature, and where it will not be exposed to direct sunlight.

9.3 Pursuant to regulation 18.8.1 of MARPOL Annex VI, the sample should be retained under the ship's control until the fuel oil is substantially consumed, but in any case for a period of not less than 12 months from the time of delivery.

9.4 The company should develop and maintain a process to keep track of the retained samples.

## **10 Procedures and documentation following testing of retained sample**

10.1 This section applies only to the context of compliance with of SOLAS regulation II-2/4.2.1.

10.2 If the retained sample has been sent for testing, the laboratory should take a subsample enabling the tests to be carried out and immediately reseal the remaining retained sample container with a new tamper-proof security seal with a unique means of identification in the presence of a representative for the authority that has ordered the test. A label containing the following information should be secured to the retained sample container:

- .1 name and address of laboratory;
- .2 date when the sample was resealed;
- .3 volume remaining in the retained sample container when resealed;
- .4 names and signatures of the person resealing the sample and the authority's representative witnessing the process;
- .5 details of the new unique seal identification;
- .6 a declaration that no other material has been added to the sample; and
- .7 relevant information from previous label, including details of original seal identification; name and IMO number of the receiving ship and bunker grade.

10.3 The laboratory should issue a test record with copies to all relevant parties, i.e. the authority that requested the testing, and the ship. Copies may also be sent to the supplier and the authority under the jurisdiction of which the supplier operates. The test record should include the test result(s) and the test method(s), and the seal number of the ship's retained sample which the testing was carried out on.