



# Veritas Register of Shipping Ltd.

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## Circular Letter 002/2022

Date: 03.01.2022

Attn.: Authorized Surveyors, Ship Owner, Ship operators

Subject: Fuel verification procedure for MARPOL Annex VI fuel oil samples (regulation 18.8.2)

In accordance with IMO Resolution MEPC.324(75) amendments to Fuel verification procedure for MARPOL Annex VI fuel oil samples (regulation 18.8.2) is entering into the force from the 1<sup>st</sup> of April 2022.

Every ship should be in compliance to Fuel verification procedure for VI fuel oil samples.  
Kindly find below applicable requirement:

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### Verification procedures for a MARPOL Annex VI fuel oil sample (regulation 18.8.2 or regulation 14.8)

The following relevant verification procedure shall be used to determine whether the fuel oil delivered to, in use or carried for use on board a ship has met the applicable sulphur limit of regulation 14 of this Annex.

This appendix refers to the following representative MARPOL Annex VI fuel oil samples:

**Part 1** – sample of fuel oil delivered<sup>5</sup> in accordance with regulation 18.8.1, hereafter referred to as the "MARPOL delivered sample" as defined in regulation 2.54.

**Part 2** – sample of fuel oil in use<sup>6</sup> intended to be used or carried for use onboard in accordance with regulation 14.8, hereafter referred to as the "in-use sample" as defined in regulation 2.55 and "onboard sample"<sup>7</sup> as defined in regulation 2.56.

### Part 1–MARPOL delivered sample

#### 1. General Requirements

1.1. The representative sample of the fuel oil, which is required by regulation 18.8.1 (the MARPOL delivered sample) shall be used to verify the sulphur content of the fuel oil delivered to a ship.

1.2. A Party, through its competent authority, shall manage the verification procedure.

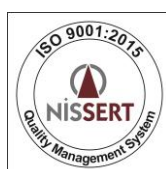
1.3. A laboratory undertaking the sulphur testing procedure given in this appendix shall have valid accreditation<sup>8</sup> in respect of the test method to be used.

<sup>5</sup> Samples taken in accordance with the 2009 Guidelines for the sampling of fuel oil for determination of compliance with the revised MARPOL Annex VI (resolution MEPC.182(59)).

<sup>6</sup> Samples taken in accordance with the 2019 Guidelines for on board sampling for the verification of the sulphur content of the fuel oil used on board ships (MEPC.1/Circ.864/Rev.1).

<sup>7</sup> Refer to the 2020 Guidelines for onboard sampling of fuel oil intended to be used or carried for use on board a ship (MEPC.1/Circ.889).

<sup>8</sup> The laboratory is to be accredited to ISO/IEC 17025:2017 or an equivalent standard for the performance of the given sulphur content test ISO 8754:2003.



2. Verification Procedure Part 1

2.1 The MARPOL delivered sample shall be conveyed by the competent authority to the laboratory.

2.2 The laboratory shall:

1. record the details of the seal number and the sample label on the test record;
2. record the condition of the seal of the sample as received on the test record; and
3. reject any sample where the seal has been broken prior to receipt and record, that rejection on the test record.

2.3 If the seal of the sample as received has not been broken, the laboratory shall proceed with the verification procedure and shall:

1. unseal the sample;
2. ensure that the sample is thoroughly homogenized;
3. draw two subsamples from the sample; and
4. reseal the sample and record the new reseal details on the test record.

2.4 The two subsamples shall be tested in succession, in accordance with the specified test method referred to in regulation 2.52 of this Annex. For the purposes of this Part 1 verification procedure, the results of the test analysis shall be referred to as '1A' and '1B':

1. results '1A' and '1B' shall be recorded on the test record in accordance with the requirements of the test method; and
2. if the results of '1A' and '1B' are within the repeatability( $r$ )<sup>9</sup> of the test method, the results shall be considered valid; or
3. If the results '1A' and '1B' are not within the repeatability( $r$ ) of the test method, both results shall be rejected and two new sub samples shall be taken by the laboratory and tested. The sample bottle shall be resealed in accordance with paragraph 2.3.4 after the new subsamples have been taken.
4. in the case of two failures to achieve repeatability between '1A' and '1B', the cause of that failure shall be investigated by the laboratory and resolved before further testing of the sample is undertaken. On resolution of that repeatability issue, two new subsamples shall be taken in accordance with paragraph 2.3. The sample shall be resealed in accordance with paragraph 2.3.4 after the new subsamples have been taken.

2.5 If the test results of '1A' and '1B' are valid, an average of these two results shall be calculated. The average value shall be referred to as 'X' and shall be recorded on the test record:

1. if the result 'X' is equal to or less than the applicable limit required by regulation 14, the fuel oil shall be considered to have met the requirement; or
2. if the result 'X' is greater than the applicable limit required by regulation 14, the fuel oil shall be considered to have not met the requirement.

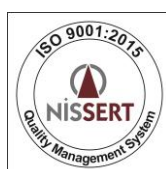
**Table 1: Summary of Part 1 MARPOL delivered sample procedure**

On the basis of the test method referred to in regulation 2.52 of this Annex		
Applicable limit % m/m: V	Result 2.5.1: $X \leq V$	Result 2.5.2: $X > V$
0.10	Met the requirement	Not met the requirement
0.50		
Result 'X' reported to 2 decimal places		

2.6 The final results obtained from this verification procedure shall be evaluated by the competent authority.

2.7 The laboratory shall provide a copy of the test record to the competent authority managing the verification procedure.

<sup>9</sup> Repeatability ( $r$ ) calculation in accordance with ISO 4259:2017-2 and as defined in the test method used.



## Part 2 – In-use and onboard samples

### 3. General Requirements

- 3.1 The in-use or onboard sample, as appropriate, shall be used to verify the sulphur content of the fuel oil as represented by that sample of fuel oil at the point of sampling.
- 3.2 A Party, through its competent authority, shall manage the verification procedure.
- 3.3 A laboratory undertaking the sulphur testing procedure given in this appendix shall have valid accreditation<sup>10</sup> in respect of the test method to be used.

### 4. Verification Procedure Part 2

- 4.1 The in-use or on board sample shall be conveyed by the competent authority to the laboratory.
- 4.2 The laboratory shall:
1. record the details of the seal number and the sample label on the test record;
  2. record the condition of the seal of the sample as received on the test record; and
  3. reject any sample where the seal has been broken prior to receipt and record that rejection on the test record.
- 4.3 If the seal of the sample as received has not been broken, the laboratory shall proceed with the verification procedure and shall:
1. unseal the sample;
  2. ensure that the sample is thoroughly homogenized;
  3. draw two subsamples from the sample; and
  4. reseal the sample and record the new reseal details on the test record.
- 4.4 The two subsamples shall be tested in succession, in accordance with the specified test method referred to in regulation 2.52 of this Annex. For the purposes of this Part 2 verification procedure, the results obtained shall be referred to as '2A' and '2B':
1. results '2A' and '2B' shall be recorded on the test record in accordance with requirements of the test method; and
  2. if the results of '2A' and '2B' are within the repeatability (r)<sup>11</sup> of the test method, the results shall be considered valid; or
  3. if the results of '2A' and '2B' are not within the repeatability (r) of the test method, both results shall be rejected and two new subsamples shall be taken by the laboratory and tested. The sample bottle shall be resealed in accordance with paragraph 4.3.4 after the new subsamples have been taken; and
  4. in the case of two failures to achieve repeatability between '2A' and '2B', the cause of that failure shall be investigated by the laboratory and resolved before further testing of the sample is undertaken. On resolution of that repeatability issue, two new subsamples shall be taken in accordance with paragraph 4.3. The sample shall be resealed in accordance with paragraph 4.3.4 after the new subsamples have been taken.
- 4.5 If the test results of '2A' and '2B' are valid, an average of these two results shall be calculated. That average value shall be referred to as 'Z' and shall be recorded on the test record:
1. if 'Z' is equal to or less than the applicable limit required by regulation 14, the sulphur content of the fuel oil as represented by the tested sample shall be considered to have met the requirement;

<sup>10</sup> The laboratory is to be accredited to ISO/IEC 17025:2017 or an equivalent standard for the performance of the given sulphur content test ISO 8754:2003.

<sup>11</sup> Repeatability (r) calculation in accordance with ISO 4259:2017-2 and as defined in the test method used.



2. if 'Z' is greater than the applicable limit required by regulation 14 but less than or equal to that applicable limit + 0.59R (where R is the reproducibility of the test method)<sup>12</sup> the sulphur content of the fuel oil as represented by the tested sample shall be considered to have met the requirement; or
3. if 'Z' is greater than the applicable limit required by regulation 14 +0.59R, the sulphur content of the fuel oil as represented by the tested sample shall be considered to have not met the requirement.

**Table 2: Summary of in-use or onboard sample procedure** <sup>13</sup>

On the basis of the test method referred to in regulation 2.52 of this Annex				
Applicable limit %m/m: V	Test margin value: W	Result 4.5.1: $Z \leq V$	Result 4.5.2: $V < Z \leq W$	Result 4.5.3: $Z > W$
0.10	0.11	Met the requirement	Met the requirement	Not met the requirement
0.50	0.53			
Result 'Z' reported to 2 decimal places				

4.6 The final results obtained from this verification procedure shall be evaluated by the competent authority.

4.7 The laboratory shall provide a copy of the test record to the competent authority managing the verification procedure.

<sup>12</sup> Reproducibility (R) calculation in accordance with ISO 4259:2017-2 and as defined in the test method used.

<sup>13</sup> Results of testing undertaken by the Company or other entities are outside the MARPOL process and hence should be considered within the approach given by ISO 4259:2017-2 regarding recipient drawn samples.

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Kindly be guided accordingly.  
Yours faithfully.

Kristina Melikyan  
Chief Executive Officer  
Veritas Register of Shipping Ltd.

