

**TO ALL FLEET VESSELS**

**Ref: DMA-SAPID/DMADGM/01/C1168**

**Date: 2022.04.06**

*In The Name Of God*

*Dear Sir/Madam,  
Good Day,*

*Pl's find attached file "Procedures for sampling and verification of the sulphur content of fuel oil and the Energy Efficiency Design Index (EEDI) – NEW MARPOL REQUIREMNET ON DISIGNATED FUEL OIL SAMPLING POINTS " for your kind attention and necessary actions..*

***You are requested to confirm receipt, discuss the contents in the next consolidated meeting on board & keep a copy in the file DA-11 .***

**BEST REGARDS**

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**ANNEX 1**

**RESOLUTION MEPC.324(75)  
(adopted on 20 November 2020)**

**AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1997 TO AMEND THE  
INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM SHIPS,  
1973, AS MODIFIED BY THE PROTOCOL OF 1978 RELATING THERETO**

**Amendments to MARPOL Annex VI**

**(Procedures for sampling and verification of the sulphur content of fuel oil and  
the Energy Efficiency Design Index (EEDI))**

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 conferred upon it by international conventions for the prevention and control of marine pollution from ships,

RECALLING ALSO article 16 of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocols of 1978 and 1997 relating thereto (MARPOL), which specifies the amendment procedure and confers upon the appropriate body of the Organization the function of considering amendments thereto for adoption by the Parties,

RECALLING FURTHER that MEPC.1/Circ.882 had requested the Parties to apply the amendments to appendix VI of MARPOL Annex VI related to the verification procedure for a MARPOL Annex VI fuel oil sample (regulation 18.8.2 or regulation 14.8) in advance of their entry into force,

HAVING CONSIDERED, at its seventy-fifth session, proposed amendments to MARPOL Annex VI concerning procedures for sampling and verification of the sulphur content of fuel oil and the Energy Efficiency Design Index (EEDI), which were circulated in accordance with article 16(2)(a) of MARPOL,

1 ADOPTS, in accordance with article 16(2)(d) of MARPOL, amendments to MARPOL Annex VI, the text of which is set out in the annex to the present resolution;

2 DETERMINES, in accordance with article 16(2)(f)(iii) of MARPOL, that the amendments shall be deemed to have been accepted on 1 October 2021 unless prior to that date, not less than one third of the Parties or Parties the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objection to the amendments;

3 INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of MARPOL, the said amendments shall enter into force on 1 April 2022 upon their acceptance in accordance with paragraph 2 above;

4 INVITES ALSO the Parties to consider the early application of the annexed amendments;

5 REQUESTS the Secretary-General, for the purposes of article 16(2)(e) of MARPOL, to transmit certified copies of the present resolution and the text of the amendments contained in the annex to all Parties to MARPOL;

6 REQUESTS ALSO the Secretary-General to transmit copies of the present resolution and its annex to Members of the Organization which are not Parties to MARPOL.

ANNEX

**AMENDMENTS TO MARPOL ANNEX VI**

**(Procedures for sampling and verification of the sulphur content of fuel oil and the Energy Efficiency Design Index (EEDI))**

**Regulation 1**

*Application*

- 1 The full text of regulation 1 is replaced by the following:

"The provisions of this Annex shall apply to all ships, except where expressly provided otherwise."

**Regulation 2**

*Definitions*

- 2 New paragraphs 52 to 56 are inserted after paragraph 51, as follows:

"52 *Sulphur content of fuel oil* means the concentration of sulphur in a fuel oil, measured in % m/m as tested in accordance with a standard acceptable to the Organization.<sup>1</sup>

53 *Low-flashpoint fuel* means gaseous or liquid fuel oil having a flashpoint lower than otherwise permitted under paragraph 2.1.1 of regulation 4 of chapter II-2 of the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended.

54 *MARPOL delivered sample* means the sample of fuel oil delivered in accordance with regulation 18.8.1 of this Annex.

55 *In-use sample* means a sample of fuel oil in use on a ship.

56 *On board sample* means a sample of fuel oil intended to be used or carried for use on board that ship."

**Regulation 14**

*Sulphur oxides (SO<sub>x</sub>) and particulate matter*

- 3 New paragraphs 8 to 13 and associated headings are inserted after existing paragraph 7 as follows:

**"In-use and onboard fuel oil sampling and testing**

8 If the competent authority of a Party requires the in-use or onboard sample to be analysed, it shall be done in accordance with the verification procedure set forth in appendix VI to this Annex to determine whether the fuel oil being used or carried for use on board meets the requirements in paragraph 1 or paragraph 4 of this regulation. The in-use sample shall be drawn taking into account the guidelines

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<sup>1</sup> Refer to ISO 8754:2003 Petroleum products – Determination of sulphur content – Energy-dispersive X-ray fluorescence spectrometry.

developed by the Organization.<sup>2</sup> The onboard sample shall be drawn taking into account the guidelines developed by the Organization.<sup>3</sup>

9 The sample shall be sealed by the representative of the competent authority with a unique means of identification installed in the presence of the ship's representative. The ship shall be given the option of retaining a duplicate sample.

#### **In-use fuel oil sampling point**

10 For each ship subject to regulations 5 and 6 of this Annex, sampling point(s) shall be fitted or designated for the purpose of taking representative samples of the fuel oil being used on board the ship taking into account the guidelines developed by the Organization.<sup>2</sup>

11 For a ship constructed before 1 April 2022, the sampling point(s) referred to in paragraph 10 shall be fitted or designated not later than the first renewal survey as identified in regulation 5.1.2 of this Annex on or after 1 April 2023.

12 The requirements of paragraphs 10 and 11 above are not applicable to a fuel oil service system for a low-flashpoint fuel for combustion purposes for propulsion or operation on board the ship.

13 The competent authority of a Party shall, as appropriate, utilize the sampling point(s) which is(are) fitted or designated for the purpose of taking representative sample(s) of the fuel oil being used on board in order to verify that the fuel oil complies with this regulation. Taking fuel oil samples by the competent authority of the Party shall be performed as expeditiously as possible without causing the ship to be unduly delayed."

### **Regulation 18**

#### *Fuel oil availability and quality*

4 Paragraph 8.2 is replaced by the following:

"8.2 If a Party requires the representative sample to be analysed, it shall be done in accordance with the verification procedure set forth in appendix VI to this Annex to determine whether the fuel oil meets the requirements of this Annex."

### **Regulation 20**

#### *Attained Energy Efficiency Design Index (attained EEDI)*

5 A new paragraph 3 is added after existing paragraph 2, as follows:

"3 For each ship subject to regulation 21 of this Annex, the Administration or any organization duly authorized by it shall report to the Organization the required and attained EEDI values and relevant information, taking into account the guidelines developed by the Organization,<sup>4</sup> via electronic communication:

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<sup>2</sup> Refer to 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>3</sup> Refer to the *2020 Guidelines for on board sampling of fuel oil intended to be used or carried for use on board a ship* (MEPC.1/Circ.889).

<sup>4</sup> Refer to the *2018 Guidelines on the method of calculation of the attained Energy Efficiency Design Index (EEDI) for new ships* (resolution MEPC.308(73)), as amended by the Organization.

- .1 within 7 months of completing the survey required under regulation 5.4 of this Annex; or
- .2 within 7 months following 1 April 2022 for a ship delivered prior to 1 April 2022."

**Regulation 21**  
*Required EEDI*

6 The existing table 1 (Reduction factors (in percentage) for the EEDI relative to the EEDI reference line) and the associated footnotes are replaced by the following:

"

Ship Type	Size	Phase 0	Phase 1	Phase 2	Phase 2	Phase 3	Phase 3
		1 Jan 2013 – 31 Dec 2014	1 Jan 2015 – 31 Dec 2019	1 Jan 2020 – 31 Mar 2022	1 Jan 2020 – 31 Dec 2024	1 Apr 2022 and onwards	1 Jan 2025 and onwards
Bulk carrier	20,000 DWT and above	0	10		20		30
	10,000 and above but less than 20,000 DWT	n/a	0-10*		0-20*		0-30*
Gas carrier	15,000 DWT and above	0	10	20		30	
	10,000 and above but less than 15,000 DWT	0	10		20		30
	2,000 and above but less than 10,000 DWT	n/a	0-10*		0-20*		0-30*
Tanker	20,000 DWT and above	0	10		20		30
	4,000 and above but less than 20,000 DWT	n/a	0-10*		0-20*		0-30*
Containership	200,000 DWT and above	0	10	20		50	
	120,000 and above but less than 200,000 DWT	0	10	20		45	
	80,000 and above but less than 120,000 DWT	0	10	20		40	
	40,000 and above but less than 80,000 DWT	0	10	20		35	
	15,000 and above but less than 40,000 DWT	0	10	20		30	

Ship Type	Size	Phase 0 1 Jan 2013 – 31 Dec 2014	Phase 1 1 Jan 2015 – 31 Dec 2019	Phase 2 1 Jan 2020 – 31 Mar 2022	Phase 2 1 Jan 2020 – 31 Dec 2024	Phase 3 1 Apr 2022 and onwards	Phase 3 1 Jan 2025 and onwards
	10,000 and above but less than 15,000 DWT	n/a	0-10*	0-20*		15-30*	
General Cargo ships	15,000 DWT and above	0	10	15		30	
	3,000 and above but less than 15,000 DWT	n/a	0-10*	0-15*		0-30*	
Refrigerated cargo carrier	5,000 DWT and above	0	10		15		30
	3,000 and above but less than 5,000 DWT	n/a	0-10*		0-15*		0-30*
Combination carrier	20,000 DWT and above	0	10		20		30
	4,000 and above but less than 20,000 DWT	n/a	0-10*		0-20*		0-30*
LNG carrier***	10,000 DWT and above	n/a	10**	20		30	
Ro-ro cargo ship (vehicle carrier)***	10,000 DWT and above	n/a	5**		15		30
Ro-ro cargo ship***	2,000 DWT and above	n/a	5**		20		30
	1,000 and above but less than 2,000 DWT	n/a	0-5*, **		0-20*		0-30*
Ro-ro passenger ship***	1,000 DWT and above	n/a	5**		20		30
	250 and above but less than 1,000 DWT	n/a	0-5*, **		0-20*		0-30*
Cruise passenger ship*** having non-conventional propulsion	85,000 GT and above	n/a	5**	20		30	
	25,000 and above but less than 85,000 GT	n/a	0-5*, **	0-20*		0-30*	

\* Reduction factor to be linearly interpolated between the two values dependent upon ship size. The lower value of the reduction factor is to be applied to the smaller ship size.

\*\* Phase 1 commences for those ships on 1 September 2015.

\*\*\* Reduction factor applies to those ships delivered on or after 1 September 2019, as defined in paragraph 43 of regulation 2.

**Note:** n/a means that no required EEDI applies."

7 In table 2 (Parameters for determination of reference values for the different ship types), the first row corresponding to Ship type defined in regulation 2.25 is replaced by the following:

"2.25 Bulk carrier	961.79	DWT of the ship where DWT ≤ 279,000 279,000 where DWT > 279,000	0.477"
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## Appendix I

### Form of International Air Pollution Prevention (IAPP) Certificate (Regulation 8)

#### **Supplement to International Air Pollution Prevention Certificate (IAPP Certificate) Record of construction and equipment**

8 New paragraphs 2.3.4 and 2.3.5 are inserted after paragraph 2.3.3 as follows:

"2.3.4 The ship is fitted with designated sampling point(s) in accordance with regulation 14.10 or 14.11.....

2.3.5 In accordance with regulation 14.12, the requirement for fitting or designating sampling point(s) in accordance with regulation 14.10 or 14.11 is not applicable for a fuel oil service system for a low-flashpoint fuel for combustion purposes for propulsion or operation on board the ship  
.....

## Appendix VI

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

9 The full text of appendix VI is replaced by the following:

#### **"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.

<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)).

Part 2 – sample of fuel oil in use,<sup>6</sup> intended to be used or carried for use on board 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.

### *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.

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<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 on board 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.



2.4 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 subsamples 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.

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

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

## **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 onboard 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':

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<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.

- .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;
  - .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				

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

<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.

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."

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# NEW MARPOL REQUIREMENT ON DESIGNATED FUEL OIL SAMPLING POINTS

Relevant for ship owners and managers, design offices, shipyards and flag states.

June 2021

The 0.50% global sulphur limit for fuel oil used or carried for use has been in force since 1 January 2020. Three months later the so-called carriage ban took effect which prohibits carriage of fuel exceeding the global sulphur limit in the fuel oil tanks. To follow up on the new requirement and enable PSC to take representative samples of the fuel oil being used onboard, in-use sampling points needs to be designated. This statutory news summarizes the sampling point requirement.



- **MARPOL delivered sample<sup>1)</sup>** - this is the traditional sample taken during bunkering, accompanying the Bunker Delivery Note (BDN) and which represents the fuel oil delivered on board.
- **In-use sample<sup>2)</sup>** - this is a new sample meant to represent the fuel oil in use at the time and for which sampling points shall be designated.
- **On board sample<sup>3)</sup>** - this is a new sample meant to represent the fuel in the fuel oil tanks, i.e. fuel oil intended to be used or carried for use.

## Application of the requirement

The new requirement is introduced through Amendments to MARPOL Annex VI given in Resolution MEPC.324(75) adopted November 2020 and will enter into force (EIF) on 1 April 2022. The deadline for designating the in-use sampling points is dependent on the IAPP renewal survey for each ship:

- **Existing ships** which are keel laid before 1 April 2022 will be required to designate sampling points no later than the first IAPP renewal survey on or after 1 April 2023.
- **Newbuilds** keel laid on or after 1 April 2022, sampling points needs to be in place and designated on delivery.

The sulphur requirements in MARPOL applies to all fuel oil intended for combustion purposes for both propulsion and on board operations, meaning that all fuel oil systems serving main engines, auxiliary engines, boilers, incinerators, IG generators, emergency equipment and other consumers shall be fitted with designated sampling points. The only exemption is fuel oil service systems for low-flashpoint fuel having a flashpoint less than 60°C.

## Fuel oil samples under MARPOL

Following the new amendments there are now three defined fuel oil samples under MARPOL, each provided with a set of IMO guidelines:

## Designating sampling points

"Designating" is meant to clearly identify the sampling point to be used for the purpose of taking the "In-Use sample" as per MARPOL Annex VI. This should be done by marking the sampling points and identify it on the relevant piping diagram.

When designating sampling points consideration should be given to possible fuel oil cross-contamination and service tank arrangements. The different fuel oil grades being used to be considered and the location should be as close to the consumer as safely feasible, considering fuel oil temperature, pressure and flowrate. For a common fuel oil supply line serving one or more consumers, a single sampling point may be acceptable.

Verification of compliance will be followed up at the first IAPP renewal survey on or after 1 April 2023, confirming the number and location of designated sampling points. On completion of the IAPP renewal survey the new IAPP Certificate will reflect that the vessel is fitted with designated sampling points.

## Fitting of new sampling points

While the preferred solution may be to designate already existing sampling points, fitting and designating new sampling points may in some cases be the only option. For such cases, DNV will not require any formal drawing approval, unless modifications other than fitting sampling points are done to

<sup>1)</sup> [MEPC.182\(59\)](#) - 2009 GUIDELINES FOR THE SAMPLING OF FUEL OIL FOR DETERMINATION OF COMPLIANCE WITH THE REVISED MARPOL ANNEX VI

<sup>2)</sup> [MEPC.1/Circ.864/Rev.1](#) - 2019 GUIDELINES FOR ON BOARD SAMPLING FOR THE VERIFICATION OF THE SULPHUR CONTENT OF THE FUEL OIL USED ON BOARD SHIPS

<sup>3)</sup> [MEPC.1/Circ.889](#) - 2020 GUIDELINES FOR ON BOARD SAMPLING OF FUEL OIL INTENDED TO BE USED OR CARRIED FOR USE ON BOARD A SHIP

the piping system, e.g. additional drainage. Please see the annex to this newsletter for practical advice on fitting of additional sampling points in addition to the IMO guidelines 2).

### Early compliance

As for many new environmental requirements we observe that many ship managers seek to comply ahead of the required deadlines and to document the same towards third parties. This is also the case with this regulation, and DNV will therefore offer early compliance upon request, documented by a Statement of Compliance before EIF of the MARPOL Amendments (1 April 2022) and a new IAPP certificate if confirmation is done on or after EIF. For vessels given a Statement of Compliance this will also automatically be shown on the first IAPP certificate issued after EIF. Confirmation of early compliance may be done as part of an annual survey or ordered as a remote survey.

### DNV Compliance Planner is now available in My Services

A new service, called Compliance Planner, has now been introduced and is available in the My Services Fleet Status on Veracity. The [DNV Compliance Planner](#) is a unique tool providing an overview of your fleet's compliance to future regulations, and the sampling point requirements will be made visible in the tool. Here you can opt for early compliance or include the scope as part of the renewal survey, either for individual ships or on a fleet level.

### Recommendations

We recommend designating existing sampling points as far as practicable and feasible. In case fitting and designating new sampling points, utilizing existing connections (e.g. manometers) and existing drip trays/drainage should be considered.

Test out the newly launched DNV Compliance Planner where the sampling point requirement is visible.

### References

- [MEPC.324\(75\)](#) - Procedures for sampling and verification of the sulphur content of fuel oil and the Energy Efficiency Design Index (EEDI)
- [MEPC.1Circ.864/rev.1](#) - 2019 Guidelines for on board sampling for the verification of the sulphur content of the fuel oil used on board ships

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## Appendix

### Fitting of new sampling points.

- Existing sampling points should be designated as far as possible. If not, new designated sampling points to be fitted and verified.
- Different fuel oil grades to be used shall be taken into account and the sampling point location to be downstream of the in use fuel oil service tank and as close to the consumer as safely feasible, considering FO temperature, pressure and flow-rate.
- The sampling points shall be provided with a shut-off valve and preferably also with a self-closing valve.
- Sampling valves shall be provided with caps to prevent leakage when not in use.
- Sampling valves shall be easily accessible in a well-lit and ventilated location.
- Sampling valves shall be so located that any drip or spray cannot reach a hot surface, electrical equipment or other source of ignition.
- Sampling valves shall be made of ductile material, such as nodular cast iron or steel (DNV GL Rules Pt.4 Ch.6 Sec.2 1.5).
- Pressure ratings of flanges/valves - shall not be lower than the maximum working pressure of the FO system, and not lower than 14 bar (DNV GL Rules Pt.4 Ch.6 Sec.5 4.3.8)
- Pipe thickness - shall not be less than as required by DNV GL Rules Pt.4 Ch.6 Sec.9.
- Drip trays shall be arranged below the sampling points to ensure suitable drainage to a drain tank.
- The installation shall be subjected to a function test.
- The sampling point to be designated and clearly marked both in the ER and on the relevant piping diagram.