



How will compliance with MARPOL Annex VI be determined?

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One of the questions that follows from the introduction of the Global Sulphur Cap is exactly how compliance is to be determined, what procedures will apply and what will be used to ascertain whether bunkers on board and the operation of the ship are compliant. Whilst much will depend on the jurisdiction and will only become clearer over time, this article attempts to examine some of these questions in relation to vessels without scrubbers or other equivalent means of compliance by reference to the IMO Guidelines available.



At the 74th session of MEPC the IMO approved (i) 2019 Guidelines for Consistent Implementation of the 0.50% Sulphur Limit under MARPOL Annex VI and (ii) 2019 Guidelines for Port State Control. The purpose of the former Guidelines is for Administrations, Port States, shipowners, builders and fuel suppliers to use them to ensure consistent implementation of the 0.50% sulphur limit. The latter are intended to provide guidance on the conduct of Port State Control inspections for compliance with MARPOL Annex VI and afford consistency in the conduct of these inspections, the recognition of deficiencies and the application of control procedures.

In order to verify compliance the Port State will carry out an initial inspection which will include, amongst other things:

- » Evidence of fuel delivered to and used on board the vessel
- » Vessel certification and its validity
- » Maintenance and other records required under MARPOL
- » Existence of required procedures, such as fuel change over procedures

If all certificates and documents are valid and in order and the overall observations of the Port State are favourable that should be the end of the matter.

However, where the observations give 'clear grounds' for believing that the condition of the ship or equipment does not correspond with the particulars of the certification or documentation a more detailed inspection will be carried out.

Although not exhaustive, the 'clear grounds' for a detailed inspection could include:

- » Missing or expired/invalid certificates,
- » Missing documents or records – for example fuel changeover procedures, MARPOL Annex VI record books,
- » Inconsistencies between the bunker delivery note and other documentation/certification,
- » Inconsistencies between the voyage plan and compliant fuel reserves on board,
- » Data from a remote or portable emission measuring device or receipt of information which would indicate that the ship may not be compliant

The full list of 'clear grounds' is set out in the guidance.

In accordance with the Guidelines, as part of their detailed inspection, the Port State will conduct a more in-depth review of on board documentation and examine the operational procedures and familiarity of the crew with regard to, amongst other things, bunkering and change over procedures in connection with MARPOL Annex VI.

The most important part of this detailed investigation will of course be to check and verify whether fuel oil used by the ship complies with Regulation 14 of MARPOL Annex VI. Sampling and testing of the fuel is to be in accordance with Regulation 18.8.2 of MARPOL Annex VI, following the procedures set out in the amended Appendix VI (Verification Procedures for a MARPOL Annex VI fuel oil sample). It is important to note that the amended verification procedures in Appendix VI are due for adoption in Spring 2020 and may not come into force until 2021, however in the interim the IMO has issued a circular to Member States recommending their early implementation and directs Port States to the amended procedures in its guidance.

The details of the approved amendments to Appendix VI are set out in the MEPC.1/ Circ. 882 'Early Application of the verification procedures for a MARPOL Annex VI fuel oil sample.'

The amended Appendix VI provides an agreed method for determining whether the fuel oil delivered to, in-use and carried on board the vessel is in accordance with MARPOL Annex VI. In addition to the procedure for the 'MARPOL sample', procedures for the collection and analysis of 'in-use' samples from the vessel's service system and 'on board' samples from the storage tanks have been included.

When the 'MARPOL sample' has been taken by the authorities the details must be recorded in the ship's sample log book together with the bunker delivery note and sufficient details for traceability.

Samples shall be tested in accordance with MARPOL Annex VI Appendix VI.

The below table sets out the allowable sulphur m/m% limits in accordance with the amended Appendix VI:

Sample type	Compliance limit per Reg. 14	Applicable limit
Marpol sample for ECA	0.1% m/m Sulphur	Less than or equal to 0.10
Marpol sample	0.5% m/m Sulphur	Less than or equal to 0.50
In-use or on-board sample for ECA	0.1% m/m Sulphur	Less than or equal to 0.11
In-use or on-board sample	0.5% m/m Sulphur	Less than or equal to 0.53

As can be seen, so far as the in-use/on board samples are concerned fuel should be considered compliant if within 0.53%, incorporating a tolerance to account for repeatability and reproducibility.

Where suppliers are required to supply fuel oil that does not exceed the 0.5% m/m limit, it has been recommended by IMO in its Guidance on best practice for fuel suppliers (MEPC.1/Circ. 875 Add.1), that suppliers should consider the statutory limit minus 0.59R reproducibility i.e. a value of 0.47% m/m as a target limit during production.

A test certificate will be issued by the laboratory which, if fuel is found to be non-compliant, is then to be evaluated by the concerned Port State authority to determine the nature of control measures or penalties which might be applied. A copy of this certificate must be kept on board (MEPC 320(74) para 4.2.4.2).

The Port State is required to consider all relevant circumstances and evidence when determining the appropriate control measures to be taken if non-compliance has been established. The vessel's implementation plan may be taken into consideration.

Depending on the circumstances and the judgment of the Port State, penalties may include significant fines, detention, an order to off-load non-compliant fuel and load compliant fuel sufficient for the voyage or permission to sail on a single voyage to procure compliant fuel oil (subject also to permission from the State of destination).

Members are encouraged to take note of the Port State Control Guidelines and review their MARPOL Annex VI applicable documentation and certification, and to verify that all records are being properly maintained up to date (including in accordance with Flag State requirements). Crews should be properly trained and made aware of the 'clear grounds' upon which detailed inspection and possible sampling will be considered.

A full review of the bunkering procedures should be undertaken, and specifically with reference to the guidelines for collection of a MARPOL representative sample as detailed in Resolution MEPC 182(59).

A periodic review of entries in the Oil Record Book, recording of fuel changeover, MARPOL representative sample and bunker delivery notes should be undertaken. The bunker delivery note must be issued by the supplier's representative as per Appendix V of MARPOL Annex VI and must include a declaration that the sulphur content of the delivered fuel oil does not exceed a limit value % m/m. The retention period of the bunker delivery note is 3 years from the date of delivery of the fuel on board and the MARPOL representative sample must be retained 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".

The Supplement to the IAPP certificate is required to be reissued and placed on board once the 1 March 2020 carriage ban comes into effect. The reissued certificate will include reference to the 0.5% m/m Sulphur limit for the carriage of fuel oil where an approved equivalent arrangement for emission control has not been fitted.

'In-use' and 'on board sampling'

The IMO has also issued Guidelines (MEPC.1/Circ. 864 Rev.1 2019) setting out the number and location of 'in-use' sample points required on a vessel. Much will depend on the number of independent systems and fuel types. This should be considered on a case by case basis. In-use sampling points should be identified or, if necessary, installed, clearly indicated on the vessel's fuel oil system drawing and approved by the vessel's Classification society. Generic guidelines for the handling of the 'in-use' sample are also included.

Similar Guidelines relating to 'on board' sampling points and procedures are expected in the near future.

In the interim, the necessary amendments to MARPOL Annex VI itself are still awaited and there is some speculation these will not be adopted/come into force until Autumn of 2021. It is anticipated that designated sampling points will need to be identified/installed no later than the vessel's first renewal survey after 12 months have elapsed from the entry into force of the amended MARPOL Annex VI regulation for an existing vessel and from the date of entry into force for new vessels. It is however recommended that consideration be given to installation and/or designation of sampling points prior to the entry into force of the anticipated amendments, at the vessel's next dry dock. This is to ensure Port State Control authorities are able to obtain 'in-use' and 'on board' samples in the near term in the event they wish to investigate a possible non-compliance. Intertanko, amongst others, have produced guidance on this.

Treatment of non-compliant fuel on board

Members are encouraged to formulate procedures and plans for the removal of non-compliant fuel from all vessels that do not have an equivalent means of compliance at the earliest opportunity and well before the 1 March deadline to avoid any problems.

Between now and 1 March, a Port State may take action to confirm that any non-compliant fuel oil on board is not being used. Actions may include, but not be limited to, examination of the oil record book, tank sounding records and undertaking physical sounding to verify compliance. If non-compliance is established the Port State will consider control measures in accordance with para 4.2.4.5 of the MEPC 320(74).

On board blending of non-compliant fuel oil with compliant low sulphur fuel oil in order to avoid de-bunkering of the non-compliant fuel oil should not be undertaken. Such blending could result in compatibility and instability issues and also void the bunker delivery note and the MARPOL representative sample. For further details reference is drawn to a recent publication by BIMCO on the topic at: <https://www.bimco.org/ships-ports-and-voyage-planning/environment-protection/2020-sulphur-cap/regulatory-and-technical/20192012---on-board-fuel-blending>

Further reference is also drawn to the below links to the websites of the IMO and CIMAC guidelines on fuel oil testing:

<http://www.imo.org/en/OurWork/Environment/PollutionPrevention/AirPollution/Pages/Index-of-MEPC-Resolutions-and-Guidelines-related-to-MARPOL-Annex-VI.aspx>

https://www.cimac.com/cms/upload/workinggroups/WG7/CIMAC_WG07_2016_Feb_Guideline_Interpretation__Fuel_Analysis_Test_Results_Final.pdf



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