

標題

Paris MoU Guidelines on Application of MARPOL Annex VI Reg.18 in an Emission Control Area (ECA) に関して

ClassNK

テクニカル インフォメーション

No. TEC-1019
発行日 2014年12月26日

各位

2015年1月1日より、MARPOL 付属書 VI 第14規則により、Emission Control Area (ECA)において燃料油中の硫黄含有率が0.10% m/m以下に規制されます。

本件に関して Paris MoU は、手順の船上保持や記録の保管等の要求事項、Port State Control 中の検査事項、適合する燃料油が入手できなかった場合の港湾への報告手続きなどについて記載したガイドライン(添付参照)を発行していますので、お知らせします。

なお、同ガイドラインは、Paris MoU のホームページでも取得可能です。
(<https://www.parismou.org/sites/default/files/Guidelines%20on%20fuel%20availability.pdf>)

なお、本件に関してご不明な点は、以下の部署にお問い合わせください。

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NOTES:

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GUIDELINES ON APPLICATION OF MARPOL ANNEX VI REG 18 IN AN EMISSION CONTROL AREA (ECA)

Introduction

The purpose of these guidelines is to provide advice on the implementation of Reg 18 of Chapter III of Annex VI of MARPOL – Fuel Oil Availability.

Reg 18 provides for situations where compliant fuel cannot be bunkered, provided the owner has taken reasonable steps to do so and therefore does not need to deviate from the intended route or unduly delay the voyage to achieve compliance.

It is possible that, from **01/01/2015** when the requirement to burn fuel oil with a sulphur content of not more than 0.10% m/m SO_x content fuel in an ECA comes into force, shipowners may invoke Reg 18 and claim it was not possible to bunker the correct fuel before entering the ECA.

Guidance

During the Initial Inspection within an ECA or first port after transiting an ECA the PSCO will look at:

1. Bunker delivery note showing a sulphur content of not more than 0.10% m/m for fuel oil used onboard (MARPOL Annex VI Reg 18 (5))
2. The representative sample of fuel oil with a sulphur content of not more than 0.10% m/m (MARPOL Annex VI Reg 18 (8.1))
3. Evidence of a written procedure (Note: there is no requirement for this to be in English) and record of changeover to fuel oil with a sulphur content of not more than 0.10% m/m before entering the ECA such that this fuel is being burnt **when** entering the ECA **and** the volume of low sulphur fuel oils in each tank as well as the date, time, and position of the ship when any fuel-oil-change-over operation is completed prior to the entry into an ECA or commenced after exit from such an area, shall be recorded in such log-book as prescribed by the Administration. (MARPOL Annex VI Reg 14 (6))

For the vessels operating in climate conditions with low temperature of air and/or water or expecting low temperature of air and/or water the PSCO may pay special attention to the following:

1. Existing pipelines for required fuel oil with a sulphur content of not more than 0.10% m/m delivery to machinery space are located or equipped with appropriate heating facilities to provide operation of the pipelines in low temperature conditions of air and/or water.

2. Written procedures of changeover to fuel oil with a sulphur content of not more than 0.10% m/m before entering the ECA include actions to provide that fuel delivery to machinery space in conditions of low temperature of air and/or water.
3. Any possibility of unavailability of fuel oil with a sulphur content of not more than 0.10% m/m due to possible considerable changing of weather conditions during all times of ship operation in ECA is excluded.

If either of the above shows a non-compliance the PSCO will conduct a More Detailed Inspection. The burning of non-compliant fuel in an ECA constitutes an unreasonable threat of harm to the environment and is of such a serious nature it may result in detention.

The master may claim that it was not possible to bunker the correct fuel prior to entering the ECA. If this is the case the master/owner must:

Present a record of actions taken to attempt to bunker correct fuel and provide evidence of an attempt to purchase compliant fuel in accordance with it's voyage plan and, if it was not made available where planned, that attempts were made to locate alternative sources for such fuel oil and that despite best efforts to obtain compliant fuel oil, no such fuel oil was made available for purchase.

Best efforts to procure compliant fuel oil include, but are not limited to, investigating alternate sources of fuel oil prior to commencing the voyage or enroute prior to entering the ECA. If, despite best efforts, it was not possible to procure compliant fuel oil prior to entering the ECA, the master/owner must notify the Port State Administration in the port of arrival in the ECA and the flag Administration. (Annex VI Regulation 18.2.4).

The notification should be made to the port of destination within the ECA or port of destination after transiting an ECA

The master/owner may provide evidence as below to support their claim (not exhaustive):

- A copy (or description) of the ship's voyage plan in place at the intended time of entry into the ECA, including the vessel's port of origin and port of destination;
- When the vessel first received notice it would be conducting a voyage involving transit/arrival in the ECA, and the vessel's location when it first received such notice;
- The date and time the ship expects to enter and exit the ECA;

- A description of the actions taken to attempt to achieve compliance prior to entering the ECA, including a description of all attempts that were made to locate alternative sources of compliant fuel oil, and a description of the reason why compliant fuel oil was not available (e.g., compliant fuel oil was not available at ports on “intended voyage;” fuel oil supply disruptions at port; etc. Cost of compliant fuel oil is not considered to be a valid basis for claiming the non-availability of compliant fuel oil).
- Include names and addresses of the fuel oil suppliers contacted and the dates on which the contact was made;
- In cases of fuel oil supply disruption, the name of the port at which the vessel was scheduled to receive compliant fuel oil and the name of the fuel oil supplier that is now reporting the non-availability of compliant fuel oil;
- The availability of compliant fuel oil at the first port-of-call in the ECA and plans to obtain that fuel oil;
- If the vessel has operated in the ECA in the last 12 months, provide the names of all ports visited, the dates of the port calls, and whether the vessel used compliant fuel oil;
- If applicable, identify and describe any operational constraints that prevented use of compliant fuel oil, for example with respect to viscosity or other fuel oil parameters.

The ship should not be required to **deviate** from its intended voyage or to **unduly delay** the voyage in order to achieve compliance.

If a ship provides the information as above, a Party shall take into account all relevant circumstances and the evidence presented to determine the appropriate action to take, including **not taking control measures**.

A Party shall notify the Organization when a ship has presented evidence of the non-availability of compliant fuel oil.

Sulphur oxides (SO_x) – Regulation 14

SO_x and particulate matter emission controls apply to all fuel oil, as defined in regulation 2.9, combustion equipment and devices onboard and therefore include both main and all auxiliary engines together with items such boilers and inert gas generators. These controls divide between those applicable inside Emission Control Areas (ECA) established to limit the emission of SO_x and particulate matter and those applicable outside such areas and are primarily achieved by limiting the maximum sulphur content of the fuel oils as loaded, bunkered, and subsequently used onboard. These fuel oil sulphur limits (expressed in terms of % m/m – that is by weight) are subject to a series of step changes over the years, regulations 14.1 and 14.4:

Outside an ECA established to limit SO _x and particulate matter emissions	Inside an ECA established to limit SO _x and particulate matter emissions
4.50% m/m prior to 1 January 2012	1.50% m/m prior to 1 July 2010
3.50% m/m on and after 1 January 2012	1.00% m/m on and after 1 July 2010
0.50% m/m on and after 1 January 2020*	0.10% m/m on and after 1 January 2015

* depending on the outcome of a review, to be concluded in 2018, as to the availability of the required fuel oil, this date could be deferred to 1 January 2025.

The ECA established are:

1. Baltic Sea area – as defined in Annex I of MARPOL (SO_x only);
2. North Sea area – as defined in Annex V of MARPOL (SO_x only);
3. North American area (entered into effect 1 August 2012) – as defined in Appendix VII of Annex VI of MARPOL (SO_x, NO_x and PM); and
4. United States Caribbean Sea area (expected to enter into effect 1 January 2014) – as defined in Appendix VII of Annex VI of MARPOL (SO_x, NO_x and PM).

Most ships which operate both outside and inside these ECA will therefore operate on different fuel oils in order to comply with the respective limits. In such cases, prior to entry into the ECA, it is required to have fully changed-over to using the ECA compliant fuel oil, regulation 14.6, and to have onboard implemented written procedures as to how this is to be undertaken. Similarly change-over from using the ECA compliant fuel oil is not to commence until after exiting the ECA. At each change-over it is required that the quantities of the ECA compliant fuel oils onboard are recorded, together with the date, time and position of the ship when either completing the change-over prior to entry or commencing change-over after exit from such areas. These records are to be made in a logbook as prescribed by the ship's flag State, in the absence of any specific requirement in this regard the record could be made, for example, in the ship's Annex I Oil Record Book.

The first level of control in this respect is therefore on the actual sulphur content of the fuel oils as bunkered. This value is to be stated by the fuel oil supplier on the bunker delivery note and hence this, together with other related aspects, is directly linked to the fuel oil quality requirements as covered under regulation 18 – see below. Thereafter it is for the ship's crew to ensure, in respect of the ECA compliant fuel oils, that through avoiding loading into otherwise part filled storage, settling or service tanks, or in the course of transfer operations, that such fuel oils do not become mixed with other, higher sulphur content fuel oils, so that the fuel oil as actually used within an ECA exceeds the applicable limit.

Consequently, regulation 14 provides both the limit values and the means to comply. However, there are other means by which equivalent levels of SO_x and particulate matter emission control, both outside and inside ECA, could be achieved. These may be divided into methods termed primary (in which the formation of the pollutant is avoided) or secondary (in which the pollutant is formed but subsequently removed to some degree prior to discharge of the exhaust gas stream to the atmosphere). Regulation 4.1 allows for the application of such methods subject to approval by the Administration. In approving such equivalents an Administration should take into account any relevant guidelines. As of October 2010 there are no guidelines in respect of any primary methods (which could encompass, for example, onboard blending of liquid fuel oils or dual fuel (gas / liquid) use). In terms of secondary control methods, guidelines (MEPC.184(59)) have been adopted for exhaust gas cleaning systems which operate by water washing the exhaust gas stream prior to discharge to the atmosphere, in using such arrangements there would be no constraint on the sulphur content of the fuel oils as bunkered other than that given the system's certification.