

ECA: MARPOL VI, Reg. 14 – New SOx limits from 1 January 2015

SOx and particulate matter emission controls apply to all fuel oil, as defined in regulation 2.9, combustion equipment and devices on board 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 SOx, and particulate matter and those applicable outside such areas. They are primarily achieved by limiting the maximum sulphur content of the fuel oils as loaded, bunkered, and subsequently used on board.

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 SOx and particulate matter emissions	Inside an ECA established to limit SOx 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 Jan. 2025.

The ECA established are:

- Baltic Sea area – as defined in Annex I of MARPOL (SOx only);
- North Sea area – as defined in Annex V of MARPOL (SOx only);
- North American area (entered into effect 1 August 2012) – as defined in Appendix VII of Annex VI of MARPOL (SOx, NOx and PM); and
- United States Caribbean Sea area (entered into effect 1 January 2014) – as defined in Appendix VII of Annex VI of MARPOL (SOx, NOx and PM).

Thus, most ships which operate both outside and inside these ECA will 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 on board 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 on board 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.

Note: 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.

Subsequently, the first level of control in this respect is 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.

For Faroese ships taking bunkers in the Faroe Islands, we make particular reference to the procedures presented in Operational Newsletter No. 11/2014 and a reminder to ensure that they are followed.

Note: 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.

With respect to alternative solutions such as exhaust gas cleaning systems, it is for this newsletter refer to Regulation 4.1 and the guidelines (MEPC.184(59)), emphasizing that the FMA has a present no procedures for approving such solutions.

Encl.: MEPC.184(59)