

**MARINE NOTICE: PMA/03/2019****31.12 2019****Effective Date:** 31.12.2019**To:** All Shipowners, Operators, Masters and Officers of Merchant Ships, Authorized Classification Societies and Surveyors.**Subject: Exhaust Gas Cleaning System (EGCS)****1. Purpose**

1. The purpose of this Marine Notice is to order Bahraini flagged vessels and foreign flagged vessels calling Bahraini ports or operating in Bahraini waters that intend to use the exhaust gas cleaning system (EGCS) in compliance with the sulphur limit of 0.50 % (m/m) in fuel oil from 1 January 2020 to adhere to the instructions mentioned in this Marine Notice.
2. This Marine Notice should be read in conjunction with the International Convention for the Prevention of Pollution from Ships (MARPOL) Annex VI and IMO 2015 Guidelines for Exhaust Gas Cleaning Systems adopted by resolution MEPC.259(68).

2. Application:

This Marine Notice is applicable to:

- a) All seagoing Bahraini flagged vessels (150 GT and above) registered under Amiri decree no. 14/1978 with respect to law for registration of ship and determination of safety conditions thereof.
- b) All foreign flagged vessels visiting Bahraini waters.

3. Options to comply with the 0.50 % m/m fuel oil sulphur limit:

1. On current technology, shippers have three main options to meet the new low-sulfur requirements:
 - a) using liquefied natural gas (LNG) or
 - b) switch from high sulphur fuel oil (HSFO) to a lower sulfur fuel oil that sulphur content must not exceed 0.50% m/m , such as marine gas oil (MGO) (sometimes called distillates) or a new type of residual fuel known as low sulfur fuel oil (LSFO) or



- c) continue to use HSFO and process air emissions through an exhaust gas cleaning system (EGCS), more commonly called “scrubber”, which must be fitted on board the ship, along with dedicated tanks to hold and treat resulting wastewater from the process

4. Using of EGCS:

- Under “Equivalents” principle, ships may use approved equivalent methods, such as EGCS “scrubbers”, which clean the emissions before they are released into the atmosphere, provided it meet the requirements of IMO 2015 Guidelines for Exhaust Gas Cleaning Systems adopted by resolution MEPC.259(68).
- Each EGC unit (Scheme A and B) should be approved by flag authority or Recognized Organizations (RO) on behalf of the flag administration and issued with a Compliance Certificate by the flag administration or RO. The form of the Compliance Certificate for Scheme A is given in appendix 1 of IMO resolution MEPC.259(68), where the Scheme B EGCS does not need to be pre-certified as meeting the emission limit value but must demonstrate compliance with the required equivalent emission values to the fuel sulfur content requirements, this must be undertaken on a continual basis by the use of a continuous exhaust gas monitoring system which is approved by the flag State administration.
- In both Schemes, the condition of discharged washwater used in the scrubbing process is to be monitored and recorded.
- The following table details the list of required EGCS documentation that needs to be onboard a ship utilizing EGCS under Scheme A or B.

Document	Scheme A Parameter Check	Scheme B Continuous Monitoring
SOx Emissions Compliance Plan (SECP)	X	X
SOx Emissions Compliance Certificate (SECC)	X	
EGCS Technical Manual	X	X
onboard Monitoring Manual (OMM)	X	X
EGGC Record Book	X	X

5. Discharging of EGCS Washwater

- Discharging of washwater from open loop mode EGC systems (Scrubber) is prohibited when ship is within limit of port of Bahrain including the anchorage area.



2. discharging of washwater from open loop mode EGC systems (Scrubber) into Bahraini territorial waters and exclusive economic zone (EEZ) is not permitted unless it can be proved that the discharge of washwater complied with the IMO 2015 guidelines for exhaust gas cleaning systems (MEPC.259(68)) and there is no negative impact on marine ecosystems.
3. Master of any vessels shall obtain a permit from Marine Safety & Environment Protection Directorate (MSEPD) at PMA before undertaking any discharge of washwater within the waters of the Kingdom of Bahrain. Ships intending to discharge of washwater into the sea must submit their request to MSEPD before discharging and provide the following information to msep@mtt.gov.bh :
 - a) Vessel name
 - b) IMO number
 - c) Arrival port
 - d) Arrival date
 - e) EGCS Scheme A or Scheme B approval
 - f) Make and Model of EGCS
 - g) Open-loop, closed-loop or hybrid type system
 - h) Results of all washwater testing that has been undertaken in accordance with 2015 Guidelines for Exhaust Gas Cleaning Systems.
For h), washwater testing should be conducted upon commissioning of the EGCS and repeated every twelve months, as a minimum, for a period of two years. Ships may be directed not to discharge washwater from an EGCS in Bahraini waters if this data, or evidence that samples have been taken for analysis, cannot be provided to PMA.
4. PMA strongly encourages the vessel to use the close loop mode (no discharge over board) when it sails within Bahraini waters.
6. **EGCS Washwater Residue**
 1. Washwater residues generated by the EGC unit should be delivered ashore to adequate reception facilities. Such residues should not be discharged into the sea or incinerated onboard.
 2. Each ship fitted with an EGC unit should record the storage and disposal of washwater residues in an EGC log, including the date, time and location of such storage and disposal. The EGC log may form a part of an existing log-book or electronic recording system as approved by the Administration.

For further clarification please contact: msep@mtt.gov.bh