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## **USE OF EXHAUST GAS CLEANING SYSTEMS UNDER THE MERCHANT SHIPPING (PREVENTION OF POLLUTION FROM SHIPS) AND MOTOR FUEL (COMPOSITION AND CONTENT) (AMENDMENT) REGULATIONS 2014**

**Notice to all Owners, Ship Operators and Managers, Charterers, Masters and Officers of Merchant Ships, Shipbuilders, Ship Repairers, Port Authorities, Engine Manufacturers, Fuel Suppliers, Operators of Fixed and Floating Platforms and Drilling Rigs and Exhaust Gas Cleaning System Manufacturers**

*This MGN should be read with the Merchant Shipping (Prevention of Pollution from Ships) and Motor Fuel (Composition and Content) (Amendment) Regulations 2014 and Merchant Shipping Notice 1819 as amended*

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### **Summary**

The purpose of this Marine Guidance Note is to provide guidance on the United Kingdom's approach to the use of Exhaust Gas Cleaning Systems (EGCS).

### **Introduction**

The purpose of this Marine Guidance Note is to provide guidance on the United Kingdom's approach to compliance with respect to the use of Exhaust Gas Cleaning Systems (EGCS) under the Merchant Shipping (Prevention of Pollution from Ships) and Motor Fuel (Composition and Content) (Amendment) Regulations 2014. These Regulations implement amendments to Annex VI and the EU Directive on Sulphur Content in Marine Fuels.

Under this regime, ships using emission abatement methods shall continuously achieve reductions of sulphur dioxide emissions that are at least equivalent to the reductions that would be achieved by using marine fuels that meet the requirements of the regulations. EGCS has been designated as the emission abatement method.



## **Exhaust Gas Cleaning Systems (EGCS) in operation**

Three circumstances have been identified where there could be a problem when operating an Exhaust Gas Cleaning Systems (EGCS) where the UK may not consider enforcement action. This is the same in principle as when the Master in certain circumstances, is unable to purchase compliant fuel. The scenarios where this is most likely are set out below. This Marine Guidance Note cannot provide absolute guidance on when the UK may take enforcement action and ultimately it would be determined on a case by case basis against professional judgement by the surveyor and inspector:

- EGCS suffers from transitory non-compliance (for example due to engine load fluctuation).
- Possible non-compliance with the SO<sub>x</sub> emission limits during the running up and shut down of the EGCS.
- Accidental breakdown of the EGCS

### **Exceptional circumstance 1 - EGCS suffers from transitory non-compliance (for example due to engine load fluctuation)**

In this circumstance, a ship has a compliant, approved EGCS installed on board but which will, on occasion, exceed the SO<sub>2</sub>/CO<sub>2</sub> ratio emission ceiling due to changes in engine load – that is, significant increase/ decrease in power due to ship schedule adjustment or fluctuation of load due to weather and sea conditions. This data will be picked up by the continuous monitoring recording device suggesting the system is non-compliant.

As such fluctuations are unavoidable in vessel operations and it is not technically feasible to entirely prevent transient breaches of the SO<sub>2</sub>/CO<sub>2</sub> ratio in such circumstances the UK will not consider this to be non-compliance unless the issue is frequent and/or sustained.

As a result an aggregated period of 20 minutes exceeding the SO<sub>2</sub>/CO<sub>2</sub> ratio ceiling within any 12 hours period is acceptable to the UK.

### **Exceptional circumstance 2 - Possible non-compliance with the SO<sub>x</sub> emission limits during the start up and shut down of the EGCS**

It is reasonable to expect during the start up and shut down of an EGCS that there may be a period during which the SO<sub>2</sub>/CO<sub>2</sub> emission limit might exceed the standard ceiling. This is a common issue with such systems and it will not be considered as a breach of the requirements.

The EGCS manufacturer should establish in the operational manual the potential length of this period.

### **Exceptional circumstance 3 - Accidental break down of the EGCS**

Like any machinery/system, accidental breakdown is possible and an EGCS is no different in that. The UK view is that a ship suffering such a breakdown would not be in immediate breach of the Regulations. The ship would be allowed to complete the next planned leg of its voyage without deviation and if no compliant fuel was available at the next port of call, be allowed to continue its voyage as if the EGCS was operational. This situation would be ordinarily allowed until the vessel was able to source the compliant fuel without undue deviation from its planned schedule.



This would only be accepted when the ship has reasonable redundancy of the auxiliary machineries and equipment, such as wash water pumps, dosing pump, control and monitoring devices etc. This is to avoid single point failure of that machinery and equipment.

This could be a significant issue if a ship operates in a region where no compliant fuel is available but this would still be considered reasonable as a similar situation would occur with a ship unable to purchase compliant fuel before arrival into an SECA. Noting supply of compliant fuel is reasonably straightforward in the UK, it is unlikely a supply problem would persist and result in a significant additional emission of SOx.

In these cases a reasonableness test would be applied by the UK in the way that is currently applied to ships that have been unable to source compliant fuel outside of the SECA.

## Intent

This Marine Guidance Note does not provide, nor can it provide, detailed guidance on when the UK would take enforcement action. Ultimately, this would be determined on a case by case basis against the professional judgement of the surveyor or inspector and also the acceptances by authorities of the ship's ports of call.

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