

**MINISTRY OF WORKS AND TRANSPORT**  
**(Maritime Services Division)**

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**SHIPPING NOTICE**

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**Exhaust Gas Cleaning Systems (Scrubbers)**

Notice to agents, shipowners, operators, masters, pilots' association, port authorities, marine diesel engine manufacturers, marine fuel suppliers, operators of fixed and floating platforms and drilling rigs

**Purpose**

Trinidad and Tobago has ratified the International Convention for the Prevention of Pollution from Ships, 1973 as modified by the protocol of 1978, and as further amended by the Protocol of 1997 (MARPOL) and acceded to Annex VI (Air Pollution) on 7 September, 2012.

Regulations for the Prevention of Air Pollution from Ships (Annex VI) seek to control airborne emissions from ships (SO<sub>x</sub>, NO<sub>x</sub>, ODS, VOC shipboard incineration) and their contribution to local and global air pollution, human health issues and environmental problems. Regulation 14 seeks to reduce sulphur oxide emissions introduced a global limit for sulphur content of ships' fuel oil, with tighter restrictions in designated emission control areas.

Ships can meet the requirement by using low-sulphur compliant fuel oil. Ships may also meet the SO<sub>x</sub> emission requirements by using approved equivalent methods, such as exhaust gas cleaning systems or "scrubbers", which "clean" the emissions before they are released into the atmosphere. In this case, the equivalent arrangement must be approved by the ship's flag State.

**1. Background**

Trinidad and Tobago is a Member State of the International Maritime Organization (IMO) and is party to the International Convention for the Prevention of Pollution from Ships, 1973 as modified by the protocol of 1978, and as further amended by the Protocol of 1997 (MARPOL) and acceded to Annex VI (Air Pollution) on 7 September, 2012.

The Annex regulates specific pollutants from ships, including nitrogen oxides (NO<sub>x</sub>), sulphur oxides (SO<sub>x</sub>), volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs) and heavy metals, and chlorofluorocarbons (CFCs).

These substances contribute to environmental problems including acidification/acid rain (NO<sub>x</sub>, SO<sub>x</sub>), eutrophication or oxygen depletion of inland and some coastal waters (NO<sub>x</sub>), the creation of ground level ozone (VOCs and NO<sub>x</sub>), the depletion of atmospheric ozone (CFCs) and the accumulation of PCBs and heavy metals in the food chain – i.e., a wide range of both regional and global environmental concerns.

## **2. Application**

Annex VI requires shipowners to ensure that all ships of 400 GT or above, and all platforms and drilling rigs engaged in voyages to ports and waters where the MARPOL convention applies, have a valid International Air Pollution Prevention Certificate (IAPPC) confirming compliance with both the equipment and operational requirements of Annex VI. The certificate is issued on behalf of the flag state.

## **3. Shipping Standards for Sulphur Oxides (SO<sub>x</sub>)**

Regulation 14 restricts SO<sub>x</sub> emissions from ships by introducing a maximum sulphur content in marine fuels. Regulation 14 specifically states that the sulphur content of any fuel oil used on board ships shall not exceed the following limits:

- 4.50% m/m (mass by mass) prior to 1 January 2012;
- 3.50% m/m on and after 1 January 2012; and
- 0.50% m/m on and after 1 January 2020.

Additionally, tighter restrictions apply in designated emission control areas (ECAs). Ships are required to reduce their Sulphur Oxides (SO<sub>x</sub>) emissions in these designated areas of the world and from 2015 onward, the allowable SO<sub>x</sub> emissions in these areas cannot exceed 0.1%.

The Caribbean area is not an ECA, therefore, the current global limit for sulphur content of ships' fuel oil in this area is 3.50% m/m. The new global limit will be 0.50% m/m and will apply on and after 1 January 2020 which was agreed by IMO Member States in 2008.

## **4. Equivalents**

Regulation 4 of MARPOL Annex VI allows maritime administrations to allow any fitting, material, appliance or apparatus to be fitted in a ship which are at least effective in reducing emissions to the standards set forth in Regulation 14.

## **5. Guidelines for Exhaust Gas Cleaning Systems, 2009**

Resolution MEPC.259 (68) 2015 Guidelines for Exhaust Gas Cleaning Systems (EGCS) also called Scrubbers specifies the requirements for testing, survey certification, and verification of EGCS under Regulation 4 to ensure the systems provide effective equivalence to the requirements of Regulation 14.

The Guidelines permit for two schemes- A and B. Scheme A provides for Scrubber Unit Certification with parameter and emission checks, while Scheme B provides for continuous emission monitoring with parameter checks.

Vessels must have on board an approved SOx Emissions Compliance Plan (SECP) in order to utilize EGCS in part or in total in order to comply with Regulation 14 of Annex VI. The SECP shall list each practical and operational piece of equipment of fuel oil combustion which is to meet the requirements of Regulation 14 and will also show how compliance is demonstrated using emissions monitoring of key parameters under whichever applicable scheme (A or B) is being used.

Where EGCS are being utilized within Trinidad and Tobago waters, washwater discharges shall be authorized by the Maritime Services Division. Washwater monitoring should be continuous and shall include the parameters pH, PAH, turbidity and temperature and where discharge occurs, the washwater shall be in compliance with the limits set out in Resolution MEPC. 259 (68) or applicable MARPOL Guidelines.

Washwater residue generated by EGCS shall be delivered ashore to reception facilities and shall not be discharged to sea or incinerated unless authorization is given.

## **6. Further information.**

For more information contact:

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***Maritime Services Division***  
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