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Date: 24th December 2014

Directive (26/2014)

Mandatory Requirement to Shipboard Incinerator

Applicable to: Ship owners, Recognized Organizations, Shipping Companies, Flag State Surveyors

1. The Department of Marine Administration circulated this directive in the exercise of the power of Section 294(B), paragraph (b) of Myanmar Merchant Shipping Act.
2. Pursuant to the provision of Section 213 (A) of Myanmar Merchant Shipping Act, the Department of Marine Administration issued this Mandatory Requirement for the construction standard, survey and certification of Myanmar vessels engaged on international voyages to be complied with the International Convention on MARPOL 73/ 78.
3. The purpose of this directive is to comply with the requirement of MARPOL Annex VI, Regulation 16 and Appendix IV, properly install each incinerator on a ship constructed on or after 1 January 2000.

MaungMaungOo
Director General
Department of Marine Administration

Regulation 16 Shipboard incineration

1 Except as provided in paragraph 4 of this regulation, shipboard incineration shall be allowed only in a shipboard incinerator.

2 Shipboard incineration of the following substances shall be prohibited:

- .1 residues of cargoes subject to Annex I, II or III or related contaminated packing materials;
- .2 polychlorinated biphenyls (PCBs);
- .3 garbage, as defined by Annex V, containing more than traces of heavy metals;
- .4 refined petroleum products containing halogen compounds;
- .5 sewage sludge and sludge oil either of which is not generated on board the ship; and
- .6 exhaust gas cleaning system residues.

3 Shipboard incineration of polyvinyl chlorides (PVCs) shall be prohibited, except in shipboard incinerators for which IMO Type Approval Certificates have been issued

4 Shipboard incineration of sewage sludge oil generated during normal operation of a ship may also take place in the main or auxiliary power plant or boilers, but in those cases, shall not take place inside ports, harbours and estuaries.

5. Nothing in this regulation neither:

- .1 affects the prohibition in, or other requirements of, the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972, as amended, and the 1996 Protocol thereto, nor
- .2 precludes the development, installation and operation of alternative design shipboard thermal waste treatment devices that meet or exceed the requirements of this regulation.

6.1 Except as provided in paragraph 6.2 of this regulation, each incinerator on a ship constructed on or after 1 January 2000 or incinerator that is installed on board a ship on or after 1 January 2000 shall meet the requirements contained in appendix IV to this Annex. Each incinerator subject to this paragraph shall be approved by the Administration taking into account the standard specification for shipboard incinerators developed by the Organization; or

6.2 The Administration may allow exclusion from the application of paragraph 6.1 of this regulation to any incinerator installed on board a ship before 19 May 2005, provided that the ship is solely engaged in voyages within waters subject to the sovereignty or jurisdiction of the State the flag of which the ship is entitled to fly.

7 incinerators installed in accordance with the requirements of paragraph 6.1 of this regulation shall be provided with a manufacturer's operating manual, which is to be retained with the unit and which shall specify how to operate the incinerator within the limits described in paragraph 2 of appendix IV of this Annex.

8 Personnel responsible for the operation of an incinerator installed in accordance with the requirements of paragraph 6.1 of this regulation shall be trained to implement the guidance provided in the manufacturer's operating manual as required by paragraph 7 of this regulation.

9 For incinerators installed in accordance with the requirements of paragraph 6.1 of this regulation the combustion chamber gas outlet temperature shall be monitored at all times the unit is in operation. Where that incinerator is of the continuous-feed type, waste shall not be fed into the unit when the combustion chamber gas outlet temperature is below 850 . Where that incinerator is of the batch-loaded type, the unit shall be designed so that the combustion chamber gas outlet temperature shall reach 600 within five minutes after start-up and will thereafter stabilize at a temperature not less than 850 .

Appendix IV

Type approval and operating limits for shipboard incinerators (Regulation 16)

1 Shipboard incinerators described in regulation 16.6.1 shall possess an IMO Type Approval Certificate for each incinerator. In order to obtain such certificate, the incinerator shall be designed and built to an approved standard as described in regulation 16.6.1. Each model shall be subject to a specified type approval test operation at the factory or an approved test facility, and under the responsibility of the Administration, using the following standard fuel/waste specification for the type approval test for determining whether the incinerator operates within the limits specified in paragraph 2 of this appendix:

Sludge oil consisting of: 75% sludge oil from heavy fuel oil (HFO);
 5% waste lubricating oil; and
 20% emulsified water.

Solid waste consisting of: 50% food waste;
 50% rubbish containing;
 approx. 30% paper,
 " 40% cardboard,
 " 10% rags,
 " 20% plastic

The mixture will have up to 50% moisture and 7% incombustible solids.

2 Incinerators described in regulation 16.6.1 shall operate within the following limits:

O₂ in combustion chamber: 6-12%

CO in flue gas maximum average: 200 mg/MJ

Soot number maximum average: Bacharach 3 or Ringelman 1 (20% opacity) (a higher soot number is acceptable only during very short periods such as starting up)

Unburned components in ash residues: Maximum 10% by weight

Combustion chamber flue gas outlet temperature range: 850~ 1200°C

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Sludge oil consisting of: 75% sludge oil from heavy fuel oil (HFO);
 5% waste lubricating oil; and
 20% emulsified water.

Solid waste consisting of: 50% food waste;
 50% rubbish containing;
 approx. 30% paper,
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