



Maritime and Coastguard Agency

MERCHANT SHIPPING NOTICE

MSN 1807 (M+F)

The Merchant Shipping (Prevention of Pollution by Sewage and Garbage from Ships) Regulations [2008] - SI [2008] No. xxxx

Notice to all Owners, Masters and Officers of Merchant Ships and Skippers of Fishing Vessels

This notice replaces MSN 1720

This notice should be read in conjunction with SI [2008] No. xxx The Merchant Shipping (Prevention of Pollution by Sewage and Garbage from Ships) Regulations [2008] and MGN [xxx]

Summary

The Merchant Shipping (Prevention of Pollution by Sewage and Garbage from Ships) Regulations 2008, (hereinafter referred to as the Regulations), implement both the revised Annex IV of MARPOL 73/78 - Regulations for the Prevention of Pollution by Sewage from Ships, and the Annex V of MARPOL 73/78 (including amendments) - Regulations for the Prevention of Pollution by Garbage from Ships.

This Notice provides information on the technical requirements for ships to comply with the UK implementation of both Annex IV and Annex V of MARPOL 73/78, the key requirements being:

For Garbage - the carriage of a Garbage Record Book and the carriage of a Garbage Management Plan on board certain ships.

For Sewage – standard dimensions of flanges for discharge connections and the United Kingdom “moderate rate of discharge of sewage from a holding tank” requirements referred to in Annex IV of MARPOL.

1. Introduction

1.1 The International Convention for the Prevention of Pollution from Ships 1973/1978 (MARPOL 73/78) contains a series of annexes that introduce regulations addressing specific areas for the prevention and control of pollution. Annex IV addresses pollution by sewage from ships while Annex V addresses pollution from ship generated garbage.

1.2 The United Kingdom has previously implemented the requirements of Annex V of MARPOL 73/78 through the Merchant Shipping (Prevention of Pollution by Garbage) Regulations 1998 – SI /1998 No. 1377. These Regulations will be revoked on the entry into force of The Merchant Shipping (Prevention of Pollution by Sewage and Garbage by Ships) Regulations [2008], referred to in this MSN as “the 2008 Regulations”.

1.3 The United Kingdom has not previously implemented Annex IV of MARPOL 73/78 into UK legislation.

2. Prevention of Pollution by Sewage

2.1 The requirements in the 2008 Regulations apply only to ships engaged in international voyages. For new ships (as defined in the Regulations) over 400gt, or under 400gt but certified to carry 15 or more persons, the Regulations apply from the date of entry into force of the Regulations. For existing ships that fall within these categories the Regulations become applicable on the 27th September 2008.

2.2 Schedule 1 includes information on the requirement referred to in regulation 22 for standardised discharge connectors on board ships, for the discharge of sewage to shore side facilities and on the potential for non-standard couplings on ships in dedicated trades.

2.3 Schedule 2 states the United Kingdom requirements (referred to in regulation 25(3) of the 2008 Regulations) in relation to a moderate rate of discharge of sewage which has been stored in holding tanks or which originates from spaces containing living animals.

3. Prevention of Pollution by Garbage

3.1 The 2008 Regulations impose the following legal requirements.

3.2 Every ship of 400 tons gross tonnage or above and every ship certified to carry 15 persons or more must carry a Garbage Management Plan

3.3 Every ship of 400 tons gross tonnage or above, every ship which is certified to carry 15 persons or more and is engaged in voyages to ports or offshore terminals under the jurisdiction of other Parties to Annex V of MARPOL, and every fixed or floating platform engaged in exploration and exploitation of the seabed, must carry and maintain a Garbage Record Book.

3.4 The 2008 Regulations also impose a duty to make entries in the Garbage Record Book about certain operations. Regulation 35 of the 2008 Regulations allows for a ship to be exempt from Regulations 33 and 34. MGN [xxx] provides details of the exemption criteria.

3.5 The 2008 Regulations state that the Garbage Management Plan must be in accordance with the guidelines developed by the IMO and set out in this MSN. Schedule 3 of this notice sets out these guidelines.

3.6 The 2008 Regulations specify what the contents of a Garbage Record Book are to be, and requires the form of the Book to be as set out in this MSN. Schedule 4 of this notice details the form of the Garbage Record Book and includes an example page for such a record book. Copies of the Garbage Record Book can be obtained from The Stationery Office.

4. Further Information

- 4.1 Additional guidance relating to the UK implementation of Annex IV and V is available in MGN [XXX].
- 4.2 Information relating to the provision of port waste reception facilities in the UK through the Merchant Shipping (Port Waste Reception Facilities) Regulations 2003/1809 is available in MGN 253, MGN 259 and Port Waste Management – A Guide to Good Practice, available from the MCA.

More Information

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Schedule 1

Standard Discharge Connections

To enable pipes of reception facilities to be connected with the ship's discharge pipeline, both lines shall be fitted with a standard discharge connection in accordance with the following table:

Standard dimensions of flanges for discharge connections

Description	Dimension
Outside diameter	210mm
Inner diameter	According to pipe outside diameter
Bolt circle diameter	170mm
Slots in flange	4 Holes, 18mm in diameter, equidistantly placed on a bolt circle of the above diameter, slotted to the flange periphery. The slot width to be 18mm
Flange thickness	16mm
Bolts and nuts: quantity and diameter	4, each of 16mm in diameter and of suitable length
The flange is designed to accept pipes up to a maximum internal diameter of 100mm and shall be of steel or other equivalent material having a flat face. This flange, together with a suitable gasket, shall be suitable for a service pressure of 600kPa	

For ships having a moulded depth 5m and less, the inner diameter of the discharge connection may be 38mm.

For ships in dedicated trades (the MCA understand this to mean ships on a scheduled service on a regular route), the 2008 Regulations allow for alternative connections. Applications should be made on a case by case basis to the MCA Customer Service Manager for the ship, if it is intended that the ship's discharge pipeline should be fitted with an alternative discharge connection such as quick-connection couplings.

Schedule 2

Moderate rate of discharge

Regulation 11 of Annex IV prohibits sewage from being discharged into the sea except in certain circumstances. Where treated or untreated sewage has been stored in a holding tank, or originates from spaces containing living animals it must not be discharged instantaneously but at a "moderate rate" of discharge when the ship is en route and proceeding at not less than 4 knots. This rate is determined by the Administration, based on standards developed by the IMO Resolution MEPC. 2 (VI) as amended by Resolution 157. (55) and 159. (55). It should be noted that the words "or originates from spaces containing living animals" have been proposed to be added, and are expected to be accepted at IMO and to come into force on 1 December 2008

The 2008 Regulations implement this by stating that the rate of discharge must be no greater than the rate specified for these purposes in this MSN.

The rate specified for these purposes is **1/200,000** of hourly swept volume with the ship proceeding at not less than 4 knots.

For the purposes of this calculation "swept volume" means:

Ship breadth x draft x distance travelled

These measurements are all calculated in metres.

GUIDELINES FOR THE DEVELOPMENT OF GARBAGE MANAGEMENT PLANS

1 Introduction

These guidelines provide direction on complying with the mandatory requirements for the development of a ship's garbage management plan and are intended to assist the shipowner/operator in the implementation of regulation 9(2) of Annex V of MARPOL 73/78. The Garbage Management Plan should be prepared in accordance with the requirements of the Merchant Shipping Regulations and the IMO "Guidelines for the implementation of Annex V of MARPOL 73/78"¹. It is assumed that the writer of the garbage management plan is familiar with the requirements of annex V of MARPOL 73/78 and the IMO "Guidelines for the Implementation of Annex V of MARPOL 73/78".

A ship's garbage management plan should contain a list of the particular ship's equipment and arrangements for the handling of garbage, and may contain extracts from and/or references to existing company instructions or both.

2 Regulatory Requirements

Regulation 9(2) of Annex V of MARPOL 73/78 reads as follows:

"Every ship of 400 tons gross tonnage and above, and every ship which is certified to carry 15 persons or more, shall carry a garbage management plan which the crew shall follow. This plan shall provide written procedures for collecting, storing, processing and disposing of garbage, including the use of the equipment on board. It shall also designate the person in charge of carrying out the plan. Such a plan shall be in accordance with the guidelines developed by the Organization and written in the working language of the crew."

3 Prevention of Pollution by Garbage

To achieve cost-effective and environmentally sound results, many garbage management planners use a combination of three complementary techniques to manage garbage:

- .1 source reduction;
- .2 recycling; and
- .3 disposal.

When requisitioning stores and provisions, shipping companies should encourage their suppliers to apply the substitutionary principle in order to reduce, to the greatest possible extent and at an early stage, the generation of garbage on board ships. The ship's garbage is made up of distinct component, some of which are addressed in MARPOL 73/78, whilst others may be addressed locally, nationally or regionally, e.g. domestic, operational, cargo-associated, food and maintenance wastes. Each component should be evaluated separately to determine the best waste management practice for that waste.

4 Matters to be addressed in the Garbage Management Plan

1 *Designated person in charge of carrying out the plan*

- In accordance with the regulation, a person shall be designated in the garbage management plan to be responsible for implementing the procedures within the plan.

¹IMO Sales No. IMO-656E

- This person should be assisted by departmental staff to ensure that the collection, separation and processing of garbage is efficient in all areas of the ship, and that the procedures aboard are carried out in accordance with the garbage management plan.

2 *Procedures for collecting garbage*

- Identify suitable receptacles for collection and separation.*
- Identify locations for receptacles, collection and separation stations.*
- Describe the process of how garbage is transported from the source of generation to the collection and separation stations.
- Describe how garbage will be handled between primary collection and separation stations and other handling methods commensurate with the following:
 - .1 needs of reception facilities, taking into account possible local recycling arrangements;
 - .2 on-board processing;
 - .3 storage; and
 - .4 disposal at sea.
- Describe the training or education programmes to facilitate collection of garbage.

3 *Procedures for processing garbage*

- Identify personnel responsible for the operation of the equipment.
- Identify available processing devices and their capacities.
- Identify location of processing devices and stations.
- Identify the categories of garbage that will be processed by each of the available processing devices.
- Describe how garbage will be handled between primary processing stations and the storage or disposal stations.
- Describe processing procedures used commensurate with the following:
 - .1 needs of reception facilities, taking into account possible local recycling arrangements;
 - .2 storage; and
 - .3 disposal at sea.
- Describe the training or education programmes in use to facilitate the processing of garbage.
- Identify available operating and maintenance procedures. (This may be done by reference to documents available on board).

4 *Procedures for storing garbage*

- Identify the location, the intended use, and the capacity of storage stations for each category of garbage.

* Separation of garbage for the purposes of these Guidelines is considered part of the collection process. Separation may take place at the source or at a separate designated station.

- Describe how garbage will be handled between storage stations and disposal commensurate with the following:
 - .1 discharge to reception facilities, taking into account possible local recycling arrangements; and
 - .2 disposal at sea.
- Describe the training or education programmes in use to facilitate the storing of garbage.

5 Procedures for disposing of garbage

- Describe the ship's procedures to ensure compliance with the requirements of Annex V of MARPOL 73/78 for disposal of garbage.

Schedule 4

Form of Garbage Record Book (This sets out the Appendix to Annex V of MARPOL)

Name of ship: _____

Distinctive number or letters: _____

IMO No: _____

Period: _____ From: _____ To: _____

1. Introduction

In accordance with Regulation 9 of Annex V of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 (MARPOL 73/78), a record is to be kept of each discharge operation or completed incineration. This includes discharges at sea, to reception facilities, or to other ships.

2. Garbage and garbage management:

Garbage includes all kinds of food, domestic and operational waste, excluding fresh fish and parts thereof, generated during the normal operation of the vessel and liable to be disposed of continuously or periodically, except those substances which are defined or listed in other annexes to MARPOL 73/78 (such as oil, sewage or noxious liquid substances).

The Guidelines for the Implementation of Annex V of MARPOL 73/78 should be referred to for relevant information¹.

3. Description of garbage

The garbage is to be grouped into the following categories for the purposes of the entries in the record book:

1. Plastics.
2. Floating dunnage, lining or packaging material.
3. Ground-down paper products, rags, glass, metal, bottles, crockery, etc.
4. Cargo residues, paper products, rags, glass, metal, bottles, crockery, etc.
5. Food waste.
6. Incinerator ash.

4. Entries in the Garbage Record Book

4.1 Entries in the Garbage Record Book, as regards the particulars stated, shall be made on each of the following occasions:

¹See "Guidelines for the Implementation of Annex V of MARPOL 73/78" available from IMO. IMO Sales NO IMO-656E.

- (a) When garbage is discharged into the sea:
- (i) Date and time of discharge.
 - (ii) Position of ship (latitude and longitude). Note: for cargo residue discharges, include discharge start and stop positions.
 - (iii) Category of garbage discharged.
 - (iv) Estimated amount discharged for each category in cubic metres.
 - (v) Signature of the officer in charge of the operation.
- (b) When garbage is discharged to reception facilities ashore or to other ships:
- (i) Date and time of discharge.
 - (ii) Port or facility, or name of the receiving ship.
 - (iii) Category of garbage discharged.
 - (iv) Estimated amount discharged for each category in cubic metres.
 - (v) Signature of the officer in charge of the operation.
- (c) When garbage is incinerated:
- (i) Date and time of start and stop of incineration.
 - (ii) Position of the ship (latitude and longitude).
 - (iii) Estimated amount incinerated in cubic metres.
 - (iv) Signature of the officer in charge of the operation.
- (d) Accidental or other exceptional discharge of garbage:
- (i) Time of occurrence.
 - (ii) Port or position of the ship at time of occurrence.
 - (iii) Estimated amount and category of garbage.
 - (iv) Circumstances of disposal, escape or loss, the reason therefor and general remarks.

4.2 Receipts

The master should obtain from the operator of port reception facilities, or from the master of the ship receiving the garbage, a receipt or certificate specifying the estimated amount of garbage transferred. The receipts or certificates must be kept on board the ship with the Garbage Record Book for two years.

4.3 Amount of garbage

The amount of garbage on board should be estimated in cubic metres, if possible separately according to category. The Garbage Record Book contains many references to estimated amount of garbage. It is recognised that the accuracy of estimating amounts of garbage is left to interpretation. Volume estimates will differ before and after processing. Some processing procedures may not allow for a usable estimate of volume, eg: the continuous processing of food waste. Such factors should be taken into consideration when making and interpreting entries made in a record.

RECORD OF GARBAGE DISCHARGES

Ship's Name: _____ Distinctive No., or letters _____ IMO No.: _____

Garbage Categories:

- 1 Plastic.
- 2 Floating dunnage, lining or packing materials.
- 3 Ground paper products, rags, glass, metal, bottles, crockery, etc.
- 4 Cargo residues, paper products, rags, glass, metal, bottles, crockery, etc.
- 5 Food waste.
- 6 Incinerator ash except from plastic products which may contain toxic or heavy metal residues.

NOTE: THE DISCHARGE OF ANY GARBAGE OTHER THAN FOOD WASTE IS PROHIBITED IN SPECIAL AREAS. ONLY GARBAGE DISCHARGED INTO THE SEA MUST BE CATEGORIZED. GARBAGE OTHER THAN CATEGORY 1 DISCHARGED TO RECEPTION FACILITIES NEED ONLY BE LISTED AS A TOTAL ESTIMATED AMOUNT. DISCHARGES OF CARGO RESIDUES REQUIRE START AND STOP POSITIONS TO BE RECORDED.

Date/time	Position of the Ship	Estimated Amount Discharged into sea (m³)						Estimated Amount Discharged to Reception Facilities or to other ship (m³)	Estimated Amount Incinerated (m³)	Certification/ Signature
		CAT.2	CAT.3	CAT.4	CAT.5	CAT.6	Other			