

TRACECA REGIONAL SEMINAR ON MARPOL AWARENESS AND IMPLEMENTATION

Moldova – 21 to 23 July 2015

1

MARPOL Annex V

MARPOL how to do it (Part IV) Implanting the regulations

Regulations For The Prevention of Pollution by Garbage from Ships



2

The revised MARPOL Annex V



On 1 January 2013, the revised Annex V of MARPOL entered into force.

These amendments were adopted on 15 July 2011 by resolution MEPC.201(62).

RESOLUTION MEPC.201(62)
 Adopted on 15 July 2011
 AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1978 RELATING TO THE INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM SHIPS
 (REVISED MARPOL ANNEX V)

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING ANXUS VI(2) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) pursuant to Article 8 of the Convention for the prevention and control of marine pollution,

NOTING ANXUS 10 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention") and Article 10 of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1978 Protocol") which together specify the amendment procedure of the 1973 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (hereinafter "1973"),

HAVING CONSIDERED SUCH AMENDMENTS TO ANNEX V OF MARPOL, 1973,

1. ADOPTS, in accordance with ANXUS 10(2)(b) of the 1973 Convention, the amendments to ANNEX V OF MARPOL, 1973, the text of which is set out in ANNEX to the present resolution;

2. DETERMINES, in accordance with ANXUS 10(2)(c)(i) of the 1973 Convention, that the amendments shall be deemed to have been adopted on 1 July 2011, subject to the date, not later than one year of the Parties or Parties that constitute more than half of which constitute not less than 50 per cent of the gross tonnage of the world merchant fleet, have communicated to the Organization their objection to the amendments;

3. INVITES the Parties to take note, in accordance with ANXUS 10(2)(c)(ii) of the 1973 Convention, that said amendments shall enter into force on 1 January 2013 upon their acceptance in accordance with paragraph 2 above;

4. REQUESTS the Secretary-General, in conformity with ANXUS 10(2)(d) of the 1973 Convention, to transmit to all Parties to MARPOL, 1973 (other copies of the present resolution and the text of the amendments contained in the Annex);

5. REQUESTS furthermore the Secretary-General to transmit to the Members of the Organization which are not Parties to MARPOL, 1973 copies of the present resolution and its Annex.

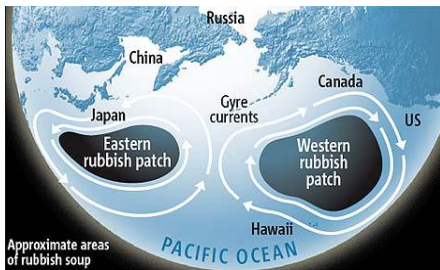
Why worry about ANNEX V ?

Typical degradation characteristics

PAPER	2-4 WEEKS
COTTON CLOTH	1-5 MONTHS
ROPE	3-14 MONTHS
WOOLEN CLOTH	1 YEAR
PAINTED WOOD	13 YEARS
TIN CAN	100 YEARS
ALUMINUM CAN	200-500 YEARS
PLASTIC BOTTLE	450 YEARS



Great Pacific Garbage Patch



2014 UN estimate is that around 270,000 t of plastics are in the oceans



Adopted MEPC 62 – July 2011

Key elements of the revised MARPOL Annex V



General prohibition

Adjusted definitions

Discharge *en route*

Discharge requirements inside & outside SA

Criteria for harmful solid bulks to be developed

- Continuation of the CG to develop guidelines
- Development of criteria for solid bulk cargoes

Regulation 1 - Definitions (1/2)



Garbage = "all kinds of victual-food wastes, domestic wastes and operational wastes excluding fresh fish and parts thereof, all plastics, cargo residuals, incinerator ashes, cooking oil, fishing gear, and animal carcasses generated during the normal operation of the ship and liable to be disposed of continuously or periodically except those substances which are defined or listed in other Annexes to the present Convention. Garbage does not include fresh fish and parts thereof generated as a result of fishing activities undertaken during the voyage, or as a result of aquaculture activities [...]"

(regulation 1.9 of the revised Annex V)

Regulation 1 - Definitions (1/2) New garbage definition (2/2)



Animal carcasses	regulation 1.1
Cargo residues	regulation 1.2
Cooking oil	regulation 1.3
Domestic wastes	regulation 1.4
Fishing gear	regulation 1.6
Food wastes	regulation 1.8
Incinerator ashes	regulation 1.10
Operational wastes	regulation 1.12
Plastics	regulation 1.13

whether in wet or dry condition or entrained in wash water

including cleaning agents and additives contained in:
(a) cargo hold wash water; and
(b) external wash water

New garbage categories



Revised MARPOL Annex V garbage categories:

- A. Plastics;
- B. Food wastes;
- C. Domestic wastes (e.g., paper products, rags, glass, metal, bottles, crockery, etc.);
- D. Cooking oil;
- E. Incinerator ashes;
- F. Operational wastes;
- G. Cargo residues;
- H. Animal carcass(es); and
- I. Fishing gear.

**UPDATE OF
GARBAGE
RECORD
BOOKS!**

Special Areas under MARPOL Annex V



Special Areas under MARPOL Annex V	Adopted	Date of entry into force	In effect from
Mediterranean Sea area	2 Nov. 1973	31 Dec. 1988	1 May 2009
Baltic Sea area	2 Nov. 1973	31 Dec. 1988	1 Oct. 1989
Black Sea area	2 Nov. 1973	31 Dec. 1988	not yet
Red Sea area	2 Nov. 1973	31 Dec. 1988	not yet
Gulfs area	2 Nov. 1973	31 Dec. 1988	1 Aug. 2008
North Sea area	17 Oct. 1989	18 Feb. 1991	18 Feb. 1991
Antarctic area	16 Nov. 1990	17 Mar. 1992	17 Mar. 1992
Wider Caribbean Region	4 July 1991	4 Apr. 1993	1 May 2011

Regulation 2 - Application



ALL SHIPS

Regulation 3 - General prohibition of the discharge of garbage into the sea



Regulation 3

General prohibition on discharge of garbage into the sea

- 1 Discharge of all garbage into the sea is prohibited, except as provided otherwise in regulations 4, 5, 6 and 7 of this Annex.
- 2 Except as provided in regulation 7 of this Annex, discharge into the sea of all plastics, including but not limited to synthetic ropes, synthetic fishing nets, plastic garbage bags and incinerator ashes from plastic products is prohibited.
- 3 Except as provided in regulation 7 of this Annex, the discharge into the sea of cooking oil is prohibited.

According to the revised regulations no discharges are permitted anywhere, except as provided otherwise in the Annex with regard to, for example, food waste, cargo residues, and cleaning agents and additives.

MARPOL Annex V discharge provisions before the revision



Table 1 – Summary of at-sea garbage disposal

Garbage type	§All ships except platforms		§Offshore platforms
	Outside special areas	§In special areas	
Plastics – includes synthetic ropes and fishing nets and plastic garbage bags	Disposal prohibited	Disposal prohibited	Disposal prohibited
Floating dunnage, lining and packing materials	> 25 miles offshore	Disposal prohibited	Disposal prohibited
Cargo residues, paper, rags, glass, metal, bottles, ash and clinkers ¹ , crockery and similar refuse	> 12 miles	Disposal prohibited	Disposal prohibited
All other garbage including paper, rags, glass, etc. comminuted or ground	> 3 miles	Disposal prohibited	Disposal prohibited
Food waste not comminuted or ground	> 12 miles	> 12 miles	Disposal prohibited
Food waste comminuted or ground	> 3 miles	> 12 miles	> 12 miles
Mixed refuse types	**	**	**

¹ Including ashes from plastic products which may contain toxic or heavy metal residues, disposal of which is prohibited into the sea by regulation 3(1)(c).
² Comminuted or ground garbage must be able to pass through a screen with mesh size no larger than 25 mm.
³ Garbage disposal regulations for special areas shall take effect in accordance with regulation 5(4)(b) of Annex V.
⁴ Offshore platforms and associated ships include all fixed or floating platforms engaged in exploration or exploitation of sea-bed mineral resources, and all ships alongside or within 500 m of such platforms.
⁵ When garbage is mixed with other harmful substances having different disposal or discharge requirements, the more stringent disposal requirements shall apply.

Regulations 4 / 5 / 6 - New discharge requirements



Table 1 – Summary of at-sea garbage disposal

Garbage type	§All ships except platforms		§Offshore platforms
	Outside special areas	§In special areas	
Plastics – includes synthetic ropes and fishing nets and plastic garbage bags	Disposal prohibited	Disposal prohibited	Disposal prohibited
Floating dunnage, lining and packing materials	> 25 miles offshore	Disposal prohibited	Disposal prohibited
Cargo residues, paper, rags, glass, metal, bottles, ash and clinkers ¹ , crockery and similar refuse	> 12 miles	Disposal prohibited	Disposal prohibited
All other garbage including paper, rags, glass, etc. comminuted or ground	> 3 miles	Disposal prohibited	Disposal prohibited
Food waste not comminuted or ground	> 12 miles	> 12 miles	Disposal prohibited
Food waste comminuted or ground	> 3 miles	> 12 miles	> 12 miles
Mixed refuse types	**	**	**

¹ Including ashes from plastic products which may contain toxic or heavy metal residues, disposal of which is prohibited into the sea by regulation 3(1)(c).
² Comminuted or ground garbage must be able to pass through a screen with mesh size no larger than 25 mm.
³ Garbage disposal regulations for special areas shall take effect in accordance with regulation 5(4)(b) of Annex V.
⁴ Offshore platforms and associated ships include all fixed or floating platforms engaged in exploration or exploitation of sea-bed mineral resources, and all ships alongside or within 500 m of such platforms.
⁵ When garbage is mixed with other harmful substances having different disposal or discharge requirements, the more stringent disposal requirements shall apply.

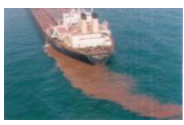
On cargo residues the revised MARPOL Annex V contains new differentiated requirements.

Type of garbage	Ships outside special areas (Reg. 4)	Ships within special areas (Reg.6)	Offshore platforms (Reg.5)
Food waste comminuted or ground	Discharge permitted ≥ 3 nm from the nearest land and <i>en route</i>	Discharge permitted ≥ 12 nm from the nearest land or nearest ice-shelf and <i>en route</i>	Discharge permitted ≥ 12 nm from the nearest land
Food waste not comminuted or ground	Discharge permitted ≥ 12 nm from the nearest land and <i>en route</i>		
Cargo residues not contained in wash water			
Cargo residues contained in wash water	Discharge permitted ≥ 12 nm from the nearest land and <i>en route</i>	Discharge only permitted in specific circumstances and ≥ 12 nm from the nearest land or nearest ice-shelf and <i>en route</i>	
Cleaning agents and additives contained in cargo hold wash water	Discharge permitted	Discharge only permitted in specific circumstances and ≥ 12 nm from the nearest land or nearest ice-shelf and <i>en route</i>	
Cleaning agents and additives in deck and external surfaces wash water		Discharge permitted	
Carcasses of animals carried on board as cargo and which died during the voyage	Discharge permitted as far from the nearest land as possible and <i>en route</i>		
All other garbage			
Mixed garbage	When garbage is mixed with or contaminated by other substances prohibited from discharge or having different discharge requirements, the more stringent requirements shall apply.		

**2012 guidelines for the implementation of
MARPOL Annex V**

MEPC.219(63)

chapter 3 - criteria for solid bulk cargoes



HME CRITERIA

Cargo residues are considered **harmful to the marine environment** if they are residues of solid bulk substances which are classified according to the criteria of the UN GHS system, meeting one of the seven parameters in **paragraph 3.2** in the 2012 Guidelines for implementation of Annex V

- Acute Aquatic Toxicity**
- Chronic Aquatic Toxicity**
- Carcinogenicity** (+ not being rapidly degradable and having high bioaccumulation)
- Mutagenicity** (+ not being rapidly degradable and having high bioaccumulation)
- Reproductive Toxicity** (+ not being rapidly degradable and having high bioaccumulation)
- Specific Target Organ Toxicity Repeated Exposure** (+ not being rapidly degradable and having high bioaccumulation)

Solid bulk cargoes containing or consisting of **synthetic polymers, rubber, plastics, or plastic feedstock pellets** (includes materials that are shredded, milled, chopped or macerated or similar materials)

HME
FIXED LIST



OR
NOT
HME

SELF ASSESSMENT

FIXED LIST WITH FLEXIBILITY
?

MEPC 68 (May 2015)

Shippers of solid bulk cargoes should classify those cargoes using the seven criteria

No guidance to be developed on GHS application

Amendments to IMSBC Code in preparation (new section 14 for HME considerations)

Cleaning agents and additives under the new regime (1/3)



Type of garbage	Ships outside special areas	Ships within special areas	Offshore platforms
Cleaning agents and additives not considered harmful to the marine environment contained in cargo hold wash water	Discharge permitted	Discharge only permitted in specific circumstances and ≥12 nm from the nearest land or nearest ice-shelf and <i>en route</i>	
Cleaning agents and additives not considered harmful to the marine environment in deck and external surfaces wash water		Discharge permitted	
Cleaning agents and additives considered harmful to the marine environment			

Cleaning agents or additives under the new regime (2/3)



When is a ship allowed to discharge cleaning agents or additives contained in hold washing water within a special area? (Also relevant for cargo residues)

Regulation 6.1.2 of the revised MARPOL Annex V states:

- Both the port of departure and the next port of destination are within the special area and the ship will not transit outside the special area between those ports (regulation 6.1.2.2); **AND**
- No adequate reception facilities are available at either the port of departure or the port of destination (regulation 6.1.2.3).

Cleaning agents and additives under the new regime (3/3)



How do I know whether a cleaning agent or additive is considered harmful to the marine environment?

Section 1.7.5 of the 2012 *Guidelines for the Implementation of MARPOL Annex V* stipulates that a cleaning agent or additive is considered **not** harmful to the marine environment if it:

- is **not** a harmful substance in accordance with the criteria in **MARPOL Annex III**; and
- does **not contain** any components which are known to be carcinogenic, mutagenic or reprotoxic (**CMR**).

Further Regulations



- **Regulation 7 – Exceptions**
(usual conditions + en route excepted for food waste with health risk)
- **Regulation 8 – Reception Facilities**
- **Regulation 9 – Port State control on operational requirements**
(usual conditions)
- **Regulation 10 – Placards, garbage management plans and garbage record-keeping**

PRF under the revised Annex V (1/2)



Annex V, Regulation 8

Reception facilities

- 1 Each Party undertakes to ensure the provision of **adequate** facilities at ports and terminals for the reception of garbage **without causing undue delay to ships**, and according to the **needs of the ships using them**.
- 2 [...Special Areas - see next slide...]
- 3 Each Party shall **notify** the Organization for transmission to the Contracting Parties concerned of all cases where the facilities provided under this regulation are **alleged to be inadequate**.

PRF under the revised Annex V (2/2)



Annex V, Regulation 8

Reception facilities

- 1 [...]
- 2 Reception facilities **within special areas**
 - .1 Each Party, the coastline of which borders a special area, undertakes to ensure that as soon as possible, in all ports and terminals within the special area, **adequate reception facilities are provided**, taking into account the **needs of ships** operating in these areas.
 - .2 Each Party concerned shall **notify** the Organization of the measures taken pursuant to paragraph 2.1 of this regulation. Upon receipt of sufficient notifications the Organization shall **establish a date** from which the requirements of regulation 6 of this Annex in respect of the area in question are to take effect. The Organization shall notify all Parties of the date so established no less than twelve months in advance of that date. **Until** the date so **established**, ships that are navigating in a special area shall comply with the requirements of **regulation 4** of this Annex as regards discharges outside special areas.
- 3 [...]

“... without causing undue delay to ships ...”



- Undue delay may arise when the time spent in port for the disposal of residues, mixtures or wastes goes beyond the normal turn-around time of the ship in that port.
- In order to avoid any undue delay, the master or the owner of the ship should notify the appropriate authority in good time, but generally not less than 24 hours before discharge is expected to take place.
- *Standard Format for the Advance Notification Form for the Waste Delivery to Port Reception Facilities (MEPC.1/Circ.644/Rev.1).*

Advance Notification Form:
MEPC.1/Circ.644/Rev1



MEPC.1/Circ.644/Rev.1
Annex Page 1

ANNEX
STANDARD FORM OF THE ADVANCE NOTIFICATION FORM FOR WASTE DELIVERY TO PORT RECEPTION FACILITIES

MEPC.1/Circ.644/Rev.1
Annex Page 2

1. SHIP PARTICULARS

1.1. Name of ship	1.2. Home port
1.3. IMO number	1.4. Call sign
1.5. Home flag	1.6. Type of ship
1.7. Gross tonnage	1.8. Net tonnage
1.9. Type of cargo	1.10. Type of cargo

2. PORT AND OFFSHORE PARTICULARS

2.1. Name of port	2.2. Name of offshore facility
2.3. IATA code	2.4. IATA code
2.5. IATA code	2.6. IATA code
2.7. IATA code	2.8. IATA code

3. TYPE AND QUANTITY OF WASTE FOR DELIVERY TO FACILITY

MEPC.1 Annex 1, Part 1, 1.1	MEPC.1 Annex 1, Part 1, 1.2	MEPC.1 Annex 1, Part 1, 1.3	MEPC.1 Annex 1, Part 1, 1.4
1.1.1. Solid waste	1.1.2. Liquid waste	1.1.3. Gaseous waste	1.1.4. Other waste
1.2.1. Solid waste	1.2.2. Liquid waste	1.2.3. Gaseous waste	1.2.4. Other waste
1.3.1. Solid waste	1.3.2. Liquid waste	1.3.3. Gaseous waste	1.3.4. Other waste
1.4.1. Solid waste	1.4.2. Liquid waste	1.4.3. Gaseous waste	1.4.4. Other waste

4. DELIVERY INFORMATION

4.1. Date of delivery	4.2. Time of delivery
4.3. Name of receiving facility	4.4. Name of receiving facility
4.5. Name of receiving facility	4.6. Name of receiving facility
4.7. Name of receiving facility	4.8. Name of receiving facility

5. SIGNATURES

Signature of Ship's Officer: _____
Signature of Port Authority: _____

"... adequate to meet the needs of ships using them..."



- The port should have regard to the operational needs of users and provide reception facilities for the types and quantities of waste from ships normally using the port (MEPC.42).
- The *Guidelines for Ensuring the Adequacy of Port Waste Reception Facilities* by resolution MEPC.83(44) establish that adequate facilities can be defined as those which:
 - mariners use;
 - fully **meet the needs of the ships** regularly using them;
 - do not provide mariners with a disincentive to use them;
 - contribute to the improvement of the marine environment;
 - allow for the ultimate disposal of ships' wastes to take place in an environmentally appropriate way.

Port waste assessment



- The type and volume of waste and waste streams depend on a number of factors:
 - which are the kind of ships calling at the port (i.e. size, type);
 - the number of ships calling at the port;
 - the duration of the journey since the last port of call;
 - the kind of cargoes handled in the port; and
 - the discharge of waste permitted under MARPOL during the journey of the ship.

Communication of information



Article 11 (1) (d)

(1) The Parties to the Convention undertake to communicate to the Organization:
 [...] (d) a list of reception facilities including their location, capacity and available facilities and other characteristics; [...]

Implemented through GISIS

Port Reception Facilities Database (PRFD) - a module of GISIS to allow Member States to update online the PRFD via a log-in password, and also to allow the public to access all the information on a view-only basis.

Reporting of alleged inadequacies



Regulation 8.3 of MARPOL Annex V

3. Each Party shall notify the Organization for transmission to the Contracting Parties concerned of all cases where the facilities provided under this regulation are **alleged to be inadequate**.

Implemented through MEPC.1/Circ.469/Rev.2 and GISIS

Cases of alleged inadequacies of port reception facilities are to be reported by the Master of the ship to the flag State using circular MEPC.1/Circ.469/Rev.2; the flag State will then notify IMO; and both the report of alleged inadequacies and the follow-up response by the port States will be posted on the PRFD as publicly available information.

Regulation 10 – mandatory documents



Placards
 (every ship ≥ 12 metres)



Garbage management plan
 (every ship ≥ 100 GT and every ship certified to carry ≥ 15 persons)

2012 guidelines for the development of garbage management plans MEPC.220(63)

Regulation 10 – mandatory documents



Garbage Record Book

(every ship ≥400GT and every ship certified to carry ≥15 persons)

Waivers for GRB are possible



Requirements are also applicable for fixed or floating platforms

Actions for Annex V

➤ **Maritime Administration should:**

- Provide advice to its own flag ships
- Examine onboard garbage arrangements
- Investigate infringements /Prosecute
- Monitor reception facilities
- Notify IMO of alleged inadequacies

➤ **Ports should:**

- Assess requirements for reception facilities
- Ensure adequate garbage reception facilities are available

35

MARPOL Annex V