Garbage Management Plan

m/v XXXXXX

IMO XXXXXX

MARLOW OFFSHORE GERMANY GmbH & Co. KG

In Accordance with:
MARPOL V, MEPC.220(63), MEPC.277(70)

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1 PREFACE AND INTRODUCTION

In October 2016, IMO adopted, by resolution MEPC.277(70), amendments to Annex V of the International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978 relating hereto (MARPOL 73/78) which requires that every ship of 400 tons gross tonnage and above and every ship certified to carry 15 persons or more shall carry a garbage management plan and shall be provided with a Garbage Record Book. In addition, every ship of 12 meters or more in length overall shall display placards to notify the crew and passengers of the ship's disposal requirements.

This plan was developed by MCC following a thorough assessment of the ships design and equipment.

Following publications have been taken into account during the development as well:

- MEPC.295(71) Guidelines for the Implementation of MARPOL Annex V;
- MEPC.220(63) "2012 Guidelines for the development of Garbage Management Plans";
- MEPC.277(70) Amendments to MARPOL Annex V (Effective: March 1^{5t}, 2018);
- ISO 21070 "Standard for the Management and handling of shipboard garbage";
- Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

This Plan meets the requirements of regulation 10 of Annex V of MARPOL 73/78.

It is the Intention of the Captain of this vessel to comply fully with all provisions of Annex V of MARPOL 73/78. In addition, it is further intended to comply fully with all trash and garbage disposal provisions of international and local law.

At NO time will plastics or products containing plastics or their derivatives be allowed to be dumped from this vessel. The captain and crew recognize the significant exposure to our environment that plastic materials pose, and will take every precaution to preclude this material from entering our waters.

The following rules are in effect and will be enforced at all times aboard this vessel, whether dockside or underway.

1.1 Record of changes

Revision No.	Effective Date	Changes / Chapter / Details
0	01.06.2009	Initial Document
1	01.01.2013	Updated to fulfil the new regulations in force from 01.01.2013
2	25.09.2019	Upon re-activation of vessel, GMP updated to meet MARPOL Annex V Res. to enter into force 01.03.2018
2.1	05.01.2023	Deleted - Sewage chapter. Updated – chapter 4.1 changed name changed to Garbage time to dissolve; chapter 5.2 ISPM 15 label; added chapter 7.1.1 Chapter Medicine; added chapter 7.1.2 Recovery of garbage from the sea; added chapters 7.4.2 Incineration and 7.4.3 Grinding; chapter 7.5.4 Designated Storage Areas/Locations/Containers; chapter 7.7.2 PSSA area – added Jomard Entrance and Tubbataha Reefs Natural Park; Appendices 1, 2, 3; Added Appendix 5 Ship Specific Garbage Management Plan created
2.2	22.05.2024	Updated – Ch. 3.1.2 new procedure; Ch. 6.2 new procedure - European Union Requirement on Ship Generated Waste; Ch. 7.1 changed the title to ''Garbage Disposal Guidance''; Ch. 7.1.3 new procedure Hazardous waste; Ch. 7.4.1 – Compaction – added Compaction characteristic; Ch. 7.4.2 – Incineration – added incineration characteristics; Ch. 7.5.1 – In General – merged with ''Procedures for Storage''; Ch. 7.7.2 - PSSA – added North-Western Mediterranean Sea area; Ch. 7.8.3 – Records – added ''5 years retention period''.

1.2 Abbreviation

DOC	Document of Compliance (for ISM)
ECO	Environmental Control Officer
GMP	Garbage Management Plan
HME	Harmful to the marine environment
IPPC	International Plant Protection Convention
ISPM	International Standards for Phytosanitary Measures
PSC	Port State Control
PSSA	Particularly Sensitive Sea Area
SMC	Safety Management Certificate

1.3 Definitions

Animal carcasses	Means the bodies of any animals that are carried on board as cargo and that die or are euthanized during the voyage.
Cargo hold wash water	Water created from the cleaning up of non-recoverable cargo residues, which may contain small quantities of cleaning agent.
Cargo residues	Means the remnants of any solid bulk cargo which are not covered by other Annexes to the present Convention and which remain on the deck or in holds following loading or unloading, including loading and unloading excess or spillage, whether in wet or dry condition or entrained in wash water but does not include cargo dust remaining on the deck after sweeping or dust on the external surfaces of the ship.
Contaminated rags	Are rags, which have been saturated with a sub-stance defined as a harmful substance in the other annexes to the Convention.
Cooking Oil	Means any type of edible oil or animal fat used or intended to be used for the preparation or cooking of food, but does not include the food itself that is prepared using these oils.
Dishwater	Means the residue from the manual or automatic washing of dishes and cooking utensils, which have been pre-cleaned to the extent that any food particles adhering to them would not normally interfere with the Operation of automatic dishwashers.
Domestic waste	Means all types of wastes not covered by other Annexes that are generated in the accommodation spaces on board the ship such as paper, card-boards, etc. Domestic waste does not include grey water.
Environmental Control Officer	Is the US definition of the Person in Charge to carry out the Plan (ECO).
En-Route	The ship is underway at sea on a course or courses, including deviation from the shortest direct route, which as far as practicable for navigational purposes, will cause any discharge to be spread over as great an area of the sea as is reasonable and practicable.
E-Waste	Is electrical and electronic equipment used for the normal Operation of the ship or in the accommodation spaces, including all components, subassemblies and consumables, which are part of the equipment at the time of discarding with the presence of material potentially hazardous to human health and/or the environment.
Fishing gear	Means any physical device or part thereof or combination of items that may be placed on or in the water or on the sea-bed with the intended purpose of capturing, or controlling for subsequent capture or harvesting, marine or fresh water organisms.
Food wastes	Are any spoiled or unspoiled food substances and include fruits, vegetables, dairy products, poultry, meat products and food scraps generated aboard ship.
Garbage	Means all kinds of food wastes, domestic wastes and operational wastes, all plastics, cargo residues, 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, which involve the transport of fish including shellfish for placement in the aquaculture facility and the transport of harvested fish including shellfish from such facilities to shore for processing.

Grey water	Means drainage from dishwater, shower, laundry, bath and washbasin drains. It does not include drainage from toilets, urinals, hospitals and animal spaces, as defined in regulation 1.3 of MARPOL Annex IV (sewage), and it does not include drainage from cargo spaces. Grey water is not considered garbage in the context of Annex V.
HME	Dry bulk cargo classified as harmful to the marine environment. A cargo is considered HME if it fails any of seven specified criteria, classed according to the UN Globally Harmonized System of Classification and Labelling of Chemicals (UN GHS) as acute toxicity, repeated exposure of specific target organ toxicity [STOT] and the presence of plastics, rubber or synthetic polymers.
Incinerator ashes	Mean ash and clinkers resulting from shipboard in-cinerators used for the incineration of garbage.
Medical waste	Means all waste materials other than medicines generated in the diagnosis, treatment, or immunization of human beings or animals. This includes, but is not limited to: blood-soaked bandages, discarded needles, surgical instruments and gloves, discarded lancets.
Nearest land	The term "from the nearest land" means from the baseline from which the territorial sea of the territory in question is established in accordance with international law, except that, for the purposes of the present Annex, ''from the nearest land'' off the north-eastern coast of Australia shall mean from a line drawn from a point on the coast of Australia in: latitude 11°00′ S, longitude 142°08′ E to a point in latitude 10°35′ S, longitude 141°55′ E, thence to a point latitude 10°00′ S, longitude 142°00′ E, thence to a point latitude 09°10′ S, longitude 143°52′ E, thence to a point latitude 09°00′ S, longitude 144°30′ E, thence to a point latitude 10°41′ S, longitude 145°00′ E, thence to a point latitude 13°00′ S, longitude 145°00′ E, thence to a point latitude 15°00′ S, longitude 146°00′ E, thence to a point latitude 17°30′ S, longitude 147°00′ E, thence to a point latitude 21°00′ S, longitude 152°55′ E, thence to a point latitude 24°30′ S, longitude 154°00′ E, thence to a point on the coast of Australia in latitude 24°42′ S, longitude 153°15′ E.
Oily rags	Are rags, which have been saturated with oil as controlled in Annex I to the Convention.
Operational wastes	Means all solid wastes (including slurries) not covered by other Annexes that are collected a board during normal maintenance or operations of a ship or used for cargo stowage and handling. Operational wastes also include cleaning agents and additives contained in cargo hold and external wash water. Operational wastes **do not include** grey water, bilge water, or other similar discharges essential to the operation of a ship (see MEPC.295(71)).
Plastic	Means a solid material which contains as an essential ingredient one or more high molecular polymers and which is formed (shaped) during either manufacture of the polymer or the fabrication into a finished product by heat and/or pressure. Plastics have material properties ranging from hard and brittle to soft and elastic. For the purposes of this annex, "all plastics" means all garbage that consists of or includes plastic in any form, including synthetic ropes, synthetic fishing nets, plastic garbage bags and incinerator ashes from plastic products.
Recycling	Means the activity of segregating and recovering components and materials for reprocessing.
Reuse	Means the activity of recovering components and for further use without reprocessing.

Special Area	Means a sea area where for recognized technical reasons in relation to its oceanographic and ecological condition and to the particular character of its traffic the adoption of special mandatory methods for the prevention of sea pollution by garbage is required.
Waste Management Plan	Is the US definition of a Garbage Management Plan.

2 PRINCIPLE DETAIL

2.1 Ship

REMARK: Due to frequent changes of the ships name, it is not practicable to enter the ships name here. The ship, which is covered by this GMP can be identified by the IMO number printed on each page.

IMO - No.: XXX

Call Sign: XXX

Type of ship: Platform Supply Vessel

Port of Registry: XXX

Gross Tonnage: XXX

Flag: XXX

Classification Society: XXX

Incinerator: XXX

Food Waste Disposer: XXX

2.2 Company

The Operator or Managing Owner is the responsible company for the safe operation of the vessel (see also SMC and DOC).

Name:	Marlow Offshore Germany GmbH & Co. KG
Address:	Breite strasse 61
22767 Hamburg / Germany	
IMO Company ID:	5639327
Phone:	+49-40-2800876-0
24hrs Emergency Phone:	**+49 172 153 2697 / +49 151 61680 825**
Fax:	+49-40-2800876-22
e-Mail:	hseq.offshore@marlowgroup.com
Website:	https://www.marlowgroup.com/

2.2.1 Companies Policy

The company has defined an environmental protection policy within their ISM manual.
A copy of the policy is permanently displayed at prominent places on board (at least: Bridge, ECR and Mess room(s)).

3 ENVIRONMENTAL CONTROL OFFICER

Always on board of this vessel, the persons in charge are:

Rank	Responsibility
Chief Officer	Overall in charge (ECO) for the implementation, especially and for the deck and galley department and for training and education of all persons on board.
2nd Engineer	For implementation in the engine department only; he is reporting to the ECO.

Fulfilling their duties (e.g. proper training and permanent motivation) will ensure that the measures are effective and carried out in according to this Garbage Management Plan.

3.1 Duties of the ECO

3.1.1 Training and Education

Education and training to be held on board (see on board training plan) covering all crewmembers.

Fare- and Non-fare paying passengers (Passengers/Supernumeraries) shall be informed on a need-to-know basis.

Training and Education should include:

- New disposal regulations;
- Preventing of pollution by garbage;
- Source reduction and reduction in generating Garbage on board;
- Separation and handling of garbage;
- Storage of garbage, locations and types of receptacles, changes to the disposal requirements ;
- Advantages of recycling, reuse;
- Disinfecting of garbage storing rooms;
- Environmental factors;
- Special areas;
- Shore disposal;
- Local restrictions;
- Additional orders from Master, Owners and/or local authorities like US Agriculture.

The garbage management training/meeting shall be recorded on (company form) and filed in the same way as a safety drill.

3.1.2 Disposal and Documentation Process

All activities in relation to the disposal of garbage ashore, overboard or via the incinerator, should be appropriately recorded in either Garbage Record Book Part I or Part II, and authorised by the Officer in Charge and each page signed by the Master.
Instructions for completing entries in the Garbage Record Book (Part I) and Part (II) can be found in each book. The Master and C/O should be familiar with making and signing off entries in the Garbage Record Book Part I and Part II.
Any discharge whilst in port, should be confirmed with port staff/shore personnel in advance of the discharge. Reconfirmation details should also be appropriately recorded in either Garbage Record Book Part I or Part II.
All Garbage Record Books should be retained on board from the date of the last entry, for 5 additional years.
Garbage Record Book Part I and Garbage Record Book Part II will be inspected by Marlow HSEQ Superintendents, and non-conformities or observations will be raised accordingly and followed up by HSEQ Department.
Garbage Record Book Part I and Garbage Record Book Part II may also be required for review during internal and external ISO 14001 Environmental Management Audits.

3.1.3 Record Keeping and Filing

The Chief Mate will keep the Record Book Part I & II also by means of the information's received by the 2nd Engineer for each discharge Operation or completed incineration.

All entries to be made in cubic meters (not kgs, pcs, ltrs or bags) in accordance with MARPOL and each category to be in a single line.

Sample entries Garbage Record Book Part I:

Date / Time	Position of the ship (latitude/longitude) or port if discharged ashore or name of ship if discharged to another ship	Category	Estimated amount discharged		Estimated amount incinerated (m^3)	Remarks: (e.g. start/stop time and Position of incineration; general remarks)	Certification/ Signature
			Into sea (m^3)	To reception facilities or to another ship (m^3)			
MAR/01 12:30	New York	A	-	0,5	-	-	ECO
MAR / 01 12:30	New York	E	-	0,7	-	-	ECO
MAR / 01 12:30	New York	D	-	0,2	-	-	ECO
MAR / 01 12:30	New York	F	-	3,5	-	-	ECO
MAR / 03 10:06	At Sea, Lat / Long	B	0.1		-		ECO
MAR / 08 10:25	At Sea	F	-	-	0,5	Start: 10:25, Lat / Long Stop: 17:00, Lat / Long	EGO
MAR / 24 15:35	Liverpool	E	-	3	-	-	ECO

The date format is irrelevant but should be the same throughout the GRB.

Sample entries Garbage Record Book Part II:

Date / Time	Position of the ship (latitude/longitude) or port if discharged ashore	Category	Estimated amount discharged		Start and stop positions of the ship for discharges into the sea	Certification/ Signature
			Into sea (m^3)	To reception facilities or to another ship (m^3)		
MAR / 07 10:25	At Sea, Lat /Long	J	20	-	Start: 10:25, Lat / Long Stop: 17:00, Lat / Long	ECO
MAR / 09 09:15	Houston	K	-	45	-	ECO

The date format is irrelevant but should be the same throughout the GRB.

The Garbage Management Plan and the Garbage Record Book will be filed according to the company´s filing system, together with all waste delivery receipts.

An example of a Waste Delivery Receipt is shown in Appendix 3 of this GMP.

3.1.4 Garbage Warning Placard

Display placards in the appropriate language are positioned to notify the crew and passengers of the disposal requirements of Annex V for garbage disposal within and outside special areas.

Such placard shall remind everyone on board not to pollute the marine environment and to collect and store any garbage properly. It shall promote the company's environmental protection policy.

The placard shall be displayed at prominent places on board and where garbage may arise (as applicable and not all compulsory):

- Bridge;
- Deck Office (where Officials may see it);
- ECR;
- Engine Workshop(s);
- Paint store;
- Deck Workshop(s);
- Mess Room(s);
- Recreation Room(s);
- Galley;
- Pantry(s);
- PAX cabins;
- As directed by the Chief Mate.

An example of the relevant placard is shown In Appendix 1.

3.1.5 Incident Reporting

On arrival, the Master shall obtain so called "Port Contacts" (Ref. SOPEP) which should also include a point of contact for garbage incidents. This Port Contact List shall be made available to all persons on board. While in US waters, each spill must be reported within 15 minutes to:

USA National Response Center

Call 1-800-424-8802 or 1-202-267-2675

NRC Watch Email: NRC@uscg.mil

Website: www.nrc.uscg.mil

3.1.6 Pre-Information

The port (local agent) must be informed by using the Advanced Notification Form (as per MEPC.1/Circ.834) prior arrival even if no any garbage shall be discharged (see Appendix 2). At the same time, local / national requirements (e.g. rules, forms, etc.) may be obtained from the agent.

3.1.7 Reporting inadequate of Port Reception Facilities

In general, the port authorities will arrange for the disposal of all types of garbage. If reception facilities are found to be inadequate, then the Master should report such to Marlow HSEQ Department using the form “Inadequacy of Port Reception Facilities” (Appendix 4) for further reporting to the Flag Administration and to the Authorities of the port State.

3.1.8 Garbage Disposal Contract

Some ships are covered with a Garbage Disposal Contract via the vessel’s charterer. The Chief Mate shall gather information about an existing contract and follow relevant instructions of this contract. Any documents in this respect shall be filed with disposal records.

3.1.9 Plan Updating

The Chief Mate will update the plan as applicable. Any updates or changes will be recorded in the "Record of Changes". The Chief Mate may require the shore office to issue a new revision of this GMP if necessary. He shall at least request a new Plan when the table "Record of Changes" is full.

3.2 Supporting Documents

These documents may be available:

- MARPOL 73/78, latest edition (hardcopy on board only);
- IMO Guidelines for Implementation of MARPOL Annex V;
- MEPC 201(62);
- MEPC 295(71);
- MEPC 230(63);
- MEPC.1/Circ. 834;
- MEPC.277(70);
- MSC.1/Circ. 1221 Type Approvals
- Guidelines for regulating wood packing material in international trade (ISPM 15);
- Waste Disposal Guide for Ships in Rotterdam
- EU Directive (EU) 2019/883.

4 THE NEED OF GARBAGE REDUCTION

4.1 Garbage time to dissolve

Paper	2-4 weeks
Cotton cloth	1-5 months
Rope	3-14 months
Woollen cloth	1 year
Cigarette butt	1.5-10 years
Painted wood	13 years
Tin can	100 years
Aluminium can	200-500 years
Plastic bottle	450 years

This table shows how long it takes some objects to dissolve at sea.
Source: Hellenic Marine Environment Protection Association (HELMEPA)

4.2 Waste minimization

Masters, Chief Mates and Chief Engineers, when ordering stores, spare parts and/or pro-visions, should encourage suppliers to reduce to the greatest possible extend, packing material.

When making supply and provisioning arrangements with the ship's suppliers consider the products being procured in terms of the garbage they will generate. Options that should be considered to decrease the amount of such waste include the following:

- using supplies that come in bulk packaging, taking into account factors such as adequate shelf-life (once a container is open) to avoid increasing garbage associated with such products;
- using supplies that come in reusable or recyclable packaging and containers; avoiding the use of disposable cups, utensils, dishes, towels and rags and other convenience items whenever possible;
- avoiding supplies that are packaged in plastic, unless a reusable or recyclable plastic is used.

When considering selection of materials for stowage and securing cargo or protection cargo from the weather, consider how much garbage such materials will generate. Options that should be considered to reduce the amount of such waste include the following:

- using stowage systems and methods that reuse dunnage, shoring, lining and packing materials; and
- discharging to port reception facilities the dunnage, lining and packaging materials generated in port during cargo activities as their discharge into the sea is not permitted.

5 IPPC

The IPPC (International Plant Protection Convention) is an international treaty to secure action to prevent the spread and introduction of pests of plants and plant products, and to promote appropriate measures for their control. It is governed by the Interim Commission on Phytosanitary Measures (ICPM), which adopts International Standards for Phytosanitary Measures (ISPMs). The ICPM established the IPP as the forum for national reporting and exchange of more general information among the Phytosanitary community.
The IPPC has always played an important role in international trade. The Convention has encouraged countries to ensure through Phytosanitary certification that their exports are not the means for introducing new pests to their trading partners. Likewise, importing countries strive to ensure that measures they have in place for protection are technically justified.

5.1 Wood Packing Material

ISPM 15 regulates wood packing material such as:

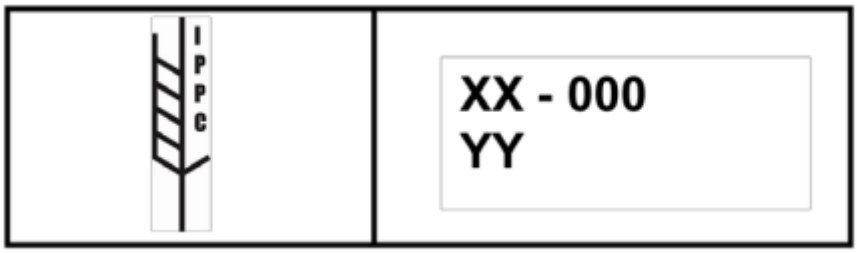
Boxes for spares;

- Pallets;
- Reels for steel wires;
- Dunnage;
- Etc.

ISPM 15 does not regulate plywood, veneer peeler cores and e.g. sawdust. A copy of this document can be found on the companies CD.

5.2 Labelling

This is an example label according to ISPM 15:



[Size about 4x8 cm only]

Legend:

IPPC Logo = Logo	
XX =	ISO Code for the Country were the wood was treated
000 =	Producer provider code assigned to the company who treated the wood
YY =	material
MB =	Treatment code for the approved measure used
HT =	Treatment with Methyl bromide
DH =	Heat treatment

5.3 Non-IPPC Material

Wood packing material, which is subject to the ISPM 15 but does not carry the a.m. label may be kept on board but may not be discharged in other countries.

6 NATIONAL REGULATIONS

The ECO should always collect information's about local garbage regulations from the agent. Most likely, there are national regulations in Brazil, Australia, New Zealand and other countries.

6.1 USA

While the ship is in the territorial limits of the United States, no crewmember or other person shall remove any of the following items except by specific permission of an Agri-cultural Officer:

1. Fruits, vegetables, meats, or other animal products;
2. Live plants;
3. Live birds/animals;
4. Hay, straw, rice hulls, hold sweepings or dunnage;
5. Garbage from food materials including root crop bags, meat wrappers, or other food container.

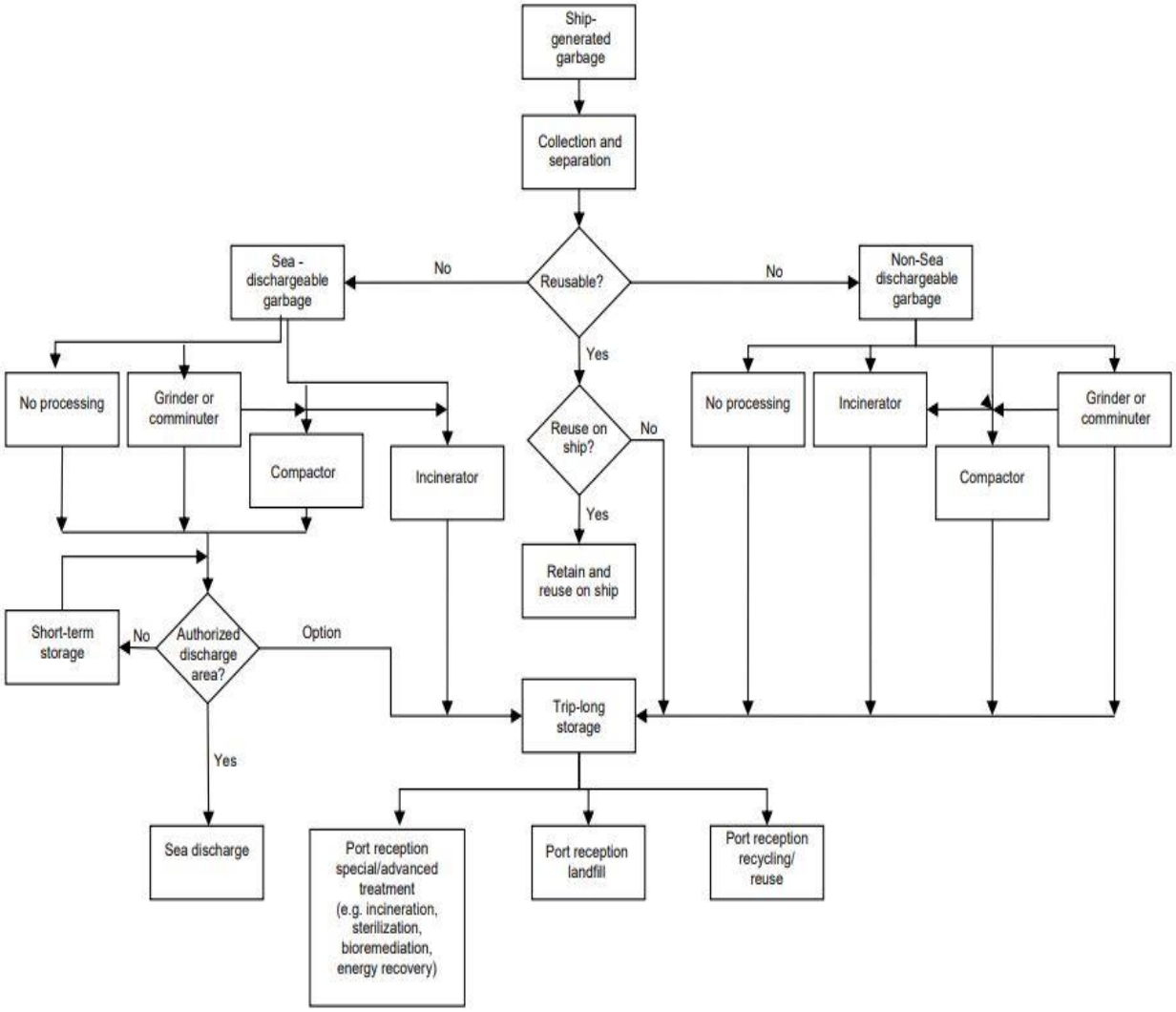
The US will implement the garbage notification form according to MEPC.1/Circ.644.

All garbage must be kept in covered, leak proof containers inside the vessel's superstructure (e.g. garbage store) at all times.

6.2 Europopean Union Requirements on Ship Generated Waste

EU PORT WASTE RECEPTION FACILITIES DIRECTIVE
This Directive applies to all vessels calling to ports within the EU.
Article 6: requires all ships to notify ports of the waste on board and the intended disposal arrangements at least 24 hours in advance. If the port call is scheduled with less than 24hours notice, vessels should inform the port agent as soon as possible.
Note: many ports in Europe will have their own waste notification form. Vessels are advised to request copy of the latest available form from port agents in advance.
Article 7 requires all ships to dispose of all wastes prior to departure. However, if the ship is able to prove sufficient capacity for all wastes remaining on board at time of departure, and for those which will be generated during the voyage to the next port of call, vessels may not be required to dispose of all wastes ashore.
The waste notification form will generally ask for this information but in the EU, PSC officials have the power to board and inspect the ship where there is reasonable doubt that the crew of the ship are not properly familiar with waste disposal requirements. In the event that they are not satisfied with waste collection procedures and planning, they may detain the ship until the situation is rectified.
Other requirements within this Directive require ports to provide suitable waste reception facilities which the ship can utilise and that do not cause undue delays to the vessels.
Please make special note of this and ensure that waste management in European waters is planned accordingly. In the event of any question in relation to waste disposal requirements in EU ports, please contact HSEQ Department and the local port agency concerned to ensure compliance with requirements can be confirmed in advance.

7 PROCEDURES



7.1 Garbage disposal guidance

Procedures for collecting garbage should be based on consideration of what is permitted and what is not permitted to be discharged into the sea while on route, and whether a particular garbage type can be discharged to port facilities for recycling or reuse. Receptacles on board can be in the form of drums, metal bins, cans, container bags, or wheelie bins. The recommended garbage types that should be separated are:

- Non-recyclable plastics and plastics mixed with non-plastic garbage
- Rags
- Recyclable material
    - Cooking oil
    - Glass
    - Aluminium cans
    - Paper, cardboard, corrugated board,
    - Wood
    - Metal
    - Plastics (incl. Styrofoam or other similar plastic material) and
- E-waste generated on board (e.g. electronic cards, instruments, equipment, computers, printer cartridges, etc.); and

- Garbage that might present a hazard to the ship or crew (e.g. oily rags, light bulbs, acids, chemicals, batteries, medicines, controlled substances, pyrotechnics, etc.)

Receptacles should be clearly marked and distinguished by colour, graphics, shape, size or location. These receptacles should be provided in appropriate spaces throughout the ship. Crewmembers and passengers should be advised of what garbage should or should not be discarded in them. Crew responsibilities should be assigned for collecting or emptying of these receptacles and taking the garbage to the appropriate processing or storage location.
Please avoid collection and consequently accumulation of expired medical material and controlled substances. Do not store expired medicines in the treatment room or hospital.

7.1.1 Plastics and Plastics Mixed with Non-plastic Garbage

The discharge of plastic garbage into the sea is prohibited.

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. When plastic garbage is not separated from other garbage, the mixture must be treated as if it were all plastic.

7.1.2 Food Wastes

Some governments have regulations for controlling diseases that may be carried by foreign food wastes and materials that have been associated with them (e.g. food packaging and disposable eating utensils). These regulations may require incinerating, sterilizing, double bagging or other special treatment and therefore these materials should be kept separate from other garbage and disposed of in accordance with the laws of the receiving country. Precautions must be taken to ensure that plastics contaminated by food wastes (e.g. plastic food wrappers) are not discharged at sea with other food wastes.
If vessel is within a Special Area, food waste may be discharged overboard provided that the vessel is en route (see Section 1.3 Definitions) and at least 12 nautical miles offshore and food waste has been passed through a grinder with a maximum mesh size of 25mm.
If the vessel is outside of a Special Area, then it may be discharged overboard provided that the vessel is en route and at least 3 nautical miles offshore and food waste has been passed through a grinder with a maximum mesh size of 25mm.
Unground food waste may only be discharged overboard outside a Special Area, and at least 12 nautical miles offshore. Any such discharge overboard should be made over as wide an area as possible in order to speed up assimilation into the marine environment.

7.1.3 Hazardous waste

This category includes batteries, light bulbs, medical, fluorescent tubes, electronic waste (e-waste) and expired pyrotechnics, which should be segregated and kept for discharge ashore only. Facilities to discharge these may not be available in all ports.
Containers provided for the disposal of hazardous wastes should be clearly marked and identified. Such items should not be put into domestic garbage receptacles. Disposal overboard is not permitted. Hazardous materials are to be declared and disposed of to a shore-based reception facility and recorded within the Garbage Record Book Part I. Receipts are to be obtained and filed onboard the ship.

Expired Pyrotechnics

Expired pyrotechnics to be stored in the Safety Locker, Paint store and marked as “Condemned / Expired – Not to be used”.
When ordering replacement pyrotechnics, the supplier may also be able to take expired pyrotechnics for safe disposal with sufficient prior notice, and subject to approval of costs by Technical Superintendent.

Batteries

Batteries, spent or unspent, for disposal should be handled according to the following:

- Under no circumstances are batteries to be incinerated as this will cause the cells to burst causing an explosion, fire and the release of toxic materials.
- Under no circumstances are batteries to be discharged overboard.
- Do not switch on or attempt to discharge unspent batteries before storage or disposal.
- Plan handling and storage to prevent damage to batteries, as well as lights or cables.
- Any damaged batteries, or lights or cables, should be stored separately and damaged parts sealed with insulating tape.

In addition to the above procedures for the storage and disposal of batteries, the following procedures relate to storage of spent and unspent LITHIUM BATTERIES to be disposed of:

- Any request to discharge/drain lithium batteries prior to disposal should be referred to HSEQ Department and Technical Superintendent.
- Do not store lithium batteries in metal containers as metal surfaces could cause a short – instead use a PLASTIC bucket (normal size 30L).
- Storage location should be in a dry, well-ventilated area, away from combustible stores and items.
- Do not store lithium batteries in plastic bags or prevent air circulating within the bucket – any moisture/condensation might cause a short and fire hazard.
- Insulation tape should be used to cover terminals to prevent contact and shorting.
- Lithium Batteries for disposal should be removed from the ship at the earliest opportunity, subject to approval from Technical Superintendent if costs to be incurred.
- Plan lithium battery replacements (e.g. in lifejackets) to minimise storage time required.

e-Waste

Electronic waste generated on board (e.g. electronic cards, gadgets, instruments, equipment, computers, printer cartridges, etc.) should be segregated and discharged ashore, and is subject to approval of disposal and cost by the Technical Superintendent. Record of discharge to be kept in the Garbage Record Book Part I, under Category I.
As electronic waste may contain low levels of toxic heavy metals, these wastes are to be disposed in the Special Wastes receptacles.

Medicine

Smaller quantities (up to ca. 20 packages) can be burnt in incinerators. This applies to tablets, capsules, syrups and infusion solutions but not to disinfectants. (Ampoules can be destroyed e.g. by scrunching – wrap in plastic before!).
Expired controlled drugs must be only recorded as “removed OR disposed” from the Controlled Substances Register, when they are either:

- Destroyed or
- Given out to a Competent Authority (Doctor or Port Authority).

In civilized ports, disposal of controlled drugs should take place by handing-over documentation and drugs to a Competent Authority (Doctor or Port Authority) and in parallel obtain a receipt from the Competent Authority, showing the type and quantity of the expired controlled drug given out.
Alternatively, it can also be done at sea. In this case fill-out the form for destruction of drugs, which must carry three signatures (Master plus 2 Officers/witnesses).

7.1.4 Recovery of garbage from the sea

Seafarers are encouraged to recover garbage from the sea during routine operations as opportunities arise and prudent practice permits and to retain the material for discharge to port reception facilities.
Before any recovery of garbage from the sea, all risks for the vessel and persons involved in the recovery operation shall be assessed. Master is the person in charge to authorize recovery of garbage.

Garbage recovered from the sea shall be stowed on the vessel until such time as it can be disposed of in accordance with the stowage categories listed in Ch. 7.5.4 corresponding to the physical nature of the recovered garbage.
Once garbage is recovered from the sea, the amount of recovered garbage, time and position shall be recorded in the Bridge Logbook.

7.1.5 Oily Rags

Oily rags are an operational waste, as per the definition of Operational Wastes under MARPOL Annex V, therefore disposal should be recorded as category F in the Garbage Record Book. It is recommended to dispose of used oily rags by incineration.

7.1.6 Used cooking oil

Used cooking oil must not be disposed of to sea.
It should be collected in a suitable container (such as the drums it originally came in), should be stored in a suitable location on board – not in the galley as this presents a fire hazard – and landed for disposal with other Garbage.
Disposal of used cooking oil should be recorded in the Garbage Record Book Part I only. Used cooking oil must not be collected in the waste oil tank and no records should be included in the Oil Record Book.

7.2 Recycling/reuse

In case the supplier(s) support the possibility of recycling or reuse, this option should be taken into account. Materials, which can be recycled/reused, are e.g. **cooking oil, metals, plastics, glassware, paper and cardboards.**
All Materials that will be recycled should be collected and separated on board and stored in designated places.

7.3 Collection and storage areas on board

Garbage collected from various areas throughout the ship should be delivered to designated processing or storage locations. Garbage that must be returned to port for discharge at port reception facilities may require storage until arrangements can be made to discharge it ashore for appropriate processing depending on the length of the voyage or availability of port reception facilities. Garbage should be stored in a manner, which avoids health and safety hazards.
Sufficient storage space and equipment (e.g. cans, drums, bags or other containers) should be provided. Where storage space is limited, ship operators are encouraged to consider Installation of compactors or incinerators.
All processed and unprocessed garbage stored for any length of time should be in tight, securely covered containers in order to prevent the unintentional discharge of stored garbage.
Food wastes and other garbage which are returned to port and which may carry disease or pests should be stored in tightly covered containers and be kept separate (as far as practicable) from garbage which does not contain such food wastes. Both types of garbage should be in separate, clearly marked containers to avoid incorrect discharge and to facilitate proper handling and treatment in land. **Cooking oil must be discharged to a shore facility — Disposal into a sludge tank is not permitted!**

7.3.1 Receptacles for collecting and separation

Position	Definition	Examples
At the Storage Area	Containers made of Steel or Plastic with cover	
In the cabins and in the treatment room.	Paper waste bin, Probably of self-extinguish type.	
In the Galley	Bin(s) with cover (steel or plastic)	
In the Engine Work- shop(s)	Steel or plastic bin(s) with cover Steel required for oily rags!	
In the Paint Store	20 ltrs steel bin(s)	(Empty painted bin)

7.3.2 Locations of receptacles, collection and separation stations

A bin is available in each cabin and in the ships workshops like ECR, Engine workshop, Bosun store, paint store and galley.

All garbage will be collected there and transported to the main storage and segregation area. After segregation, the garbage will be stored here until final removal overboard or preferably to shore reception facilities.

7.3.3 Transport to separation station

Most garbage will be transported in plastic bags to the separation station. In this case, the garbage shall be separated from the bags and stored separately (remember: garbage in plastic bags is solely considered as plastic).

7.3.4 Final Separation

Crew members should be encouraged to separate at collection points. This saves time in re-sorting garbage and reduces opportunity for cross-contamination.
Where garbage is mixed, then the more stringent rules applicable to its disposal will apply. Effective separation will therefore allow the most appropriate and cost–effective method of disposal to be used.
Once delivered to the collection and separation station, all garbage shall be separated into the respective receptacles in order to:

- Further processing on board (possibly incineration, compacting or food grinding)
- Disposal at sea
- Storage and disposal to shore

7.4 Processing

7.4.1 Compacting

Manual compacting of the garbage (paper, cartons, boxes, etc.) at the collection station is useful to reduce volume of garbage a board. Most garbage can be compacted to some degree; the exceptions include unground plastics, fibre and paperboard, bulky cargo containers and thick metal items.
Pressurized containers should not be compacted or shredded without the use of specialized equipment designed for this purpose because they present an explosion hazard in standard compactors.
Compaction reduces the volume of garbage. In most cases, the output from a compactor is a block of material which facilitates the shipboard storage of garbage and its discharging in a port facility. It should be taken into account that the output from a compactor might be subject to quarantine, sanitary or health requirements or other requirements from the port reception facilities and advice from local authorities should be considered before use.

Compaction characteristics

Examples of garbage	Special handling by ship's personnel before compaction	Compaction characteristics			Onboard storage space
		Rate of alteration	Retainment of compacted form	Density of compacted form	
Metal, food and beverage containers, glass, small wood pieces	None	Very rapid	Almost 100%	High	Minimum
Comminuted plastics, fibre and paper board	Minor – reduce material to size for feed, minimal manual labour	Rapid	Approximately 80%	Medium	Minimum
Small metal drums[5], uncomminuted cargo packing, large pieces of wood	Moderate – longer manual labour time required to size material for feed	Slow	Approximately 50%	Relatively low	Moderate
Uncomminuted plastics	Major – very long manual labour time to size material for feed; usually impractical	Very slow	Less than 10%	Very low	Maximum
Bulky metal cargo containers, thick metal items	Impractical for shipboard compaction; not feasible	Not applicable	Not applicable	Not applicable	Maximum

7.4.2 Incineration

Before using incinerators, operators should request permission from the C/E and the Bridge.
The incinerator should be clearly labelled as to whether or not plastic can be incinerated. Incinerators that are NOT type approved for incineration of plastics should have clear labels "NO PLASTICS". Category 3 plastics (Vinyl or PVC) should NOT be incinerated as they release toxins.
Ash and clinkers from shipboard incinerators should be considered as operational waste and, therefore, as garbage that is not eligible for discharge into the sea.
Incineration conducted in a shipboard incinerator can significantly reduce the need to store garbage on board the ship. Shipboard incinerators should be designed, constructed, operated and maintained in accordance with the '2014 Standard specification for shipboard incinerators' (resolution MEPC.244(66), as amended). MARPOL Annex VI requires shipboard incinerators installed after 1 January 2000 to be type approved and meeting specific air pollution criteria. Incinerators should only be used to incinerate materials that are specified by the incinerator manufacturer.
Shipboard incineration should not be undertaken when the ship is in port or at an offshore terminal. Some ports may have domestic laws that specify additional air emission restrictions, use of a shipboard incinerator may require permission from the port authority concerned.

Incineration Characteristics

Examples of garbage	Special handling by ship's personnel[6] before incineration	Incineration characteristics				Onboard storage space
		Combustibility	Reduction of volume	Residual	Exhaust	
Paper packing, food and beverage containers	Minor – easy to feed into hopper	High	Over 95%	Powder ash	Possibly smoky and not hazardous	Minimum
Fibre and paperboard	Minor – reduce material to size for feed, minimum manual labour	High	Over 95%	Powder ash	Possibly smoky and not hazardous	Minimum
Plastics packaging, food and beverage containers, etc.	Minor – easy to feed into hopper	High	Over 95%	Powder ash	Possibly smoky and not hazardous based on incinerator design	Minimum
Plastics sheeting, netting, rope and bulk material.	Moderate –manual labour time to size reduction	High	Over 95%	Powder ash	Possibly smoky and not hazardous based on incinerator design	Minimum
Rubber hoses and bulk pieces	Major – manual labour time to size reduction	High	Over 95%	Powder ash	Possibly smoky and not hazardous based on incinerator design	Minimum
Metal food and beverage containers, etc.	Minor – easy to feed into hopper	Low	Less 10%	Slag	Possibly smoky and not hazardous	Moderate
Metal cargo, bulky containers, thick metal items	Major – manual labour time to size reduction(not easily incinerated)	Very low	Less 5%	Large metal Fragments and slag	Possibly smoky and not hazardous	Maximum
Glass food and beverage containers, etc.	Minor – easy to feed into hopper	Low	Less 10%	Slag	Possibly smoky and not hazardous	Moderate
Wood, cargo containers and large wood scrapes	Moderate – manual labour time to size reduction	High	Over 95%	Powder ash	Possibly smoky and not hazardous	Minimum

7.4.3 Grinding and comminution

The discharge of food wastes comminuted or ground may be permitted under regulations 4.1.1, 4.1.2 (Outside Special Area) and 6.1.1 (Inside Special Area) of MARPOL Annex V or paragraph 5.2.1 of part II-A of the Polar Code whilst the ship is en route. Such comminuted or ground food wastes must be capable of passing through a screen with openings no greater than 25 mm.
If such equipment is installed, it shall be supported by a certificate on conformity (or similar) and included in the "Statement of Compliance Certification for Prevention of Pollution by Garbage from the Ship" issued by Classification Society on behalf of Flag.
Regulation 4 of MARPOL Annex V requires comminuting or grinding food wastes if the food wastes are to be discharged between 3 and 12 nm from the nearest land. Although unprocessed food wastes may be discharged beyond 12 nm, it is recommended that comminuters be used as they hasten assimilation into the marine environment. Because food wastes comminuted with plastics cannot be discharged into the sea, all plastic materials need to be removed before food wastes are placed into a comminuter or grinder.
When operating inside a special area or Arctic waters, Regulation 6 of MARPOL Annex V and Chapter 5 of Part II-A of the Polar Code require all food wastes to be comminuted or ground prior to discharge into the sea. All discharges are to be as far as practicable and not less than 12 nm from the nearest land, ice-shelf or fast ice. Food wastes shall not be discharged onto the ice.

7.5 Procedures for Storage

Garbage collected from living and working areas throughout the ship should be delivered to designated storage locations. In all cases, **garbage** should be **stored** in a manner, which **avoids health** and/or **safety hazards.** To the extent possible, all garbage which must be stored for any length of time should be placed in tight, securely covered Containers. Disinfecting and both preventative and remedial pest control methods should be applied regularly in Garage storage areas.

Examples of suitable containments for storage of garbage until disposal at sear or to shore facilities.
Capacity: 120 ltr each

PART 1

A	Plastics	F	Operational Wastes
B	Food Wastes	G	Animal Carcass(es)
C	Domestic Wastes	H	Fishing Gear
D	Cooking Oil	I	E-Waste
E	Incinerator Ashes		

PART II

J	Cargo Residues (non-HME)
K	Cargo Residues (HME)

7.5.1 Designated Storage Areas/Containers

Remark: Size, construction, quantity and location of garbage bins and receptacles can be adjusted by the vessel depending of the vessel size and average amount of each type of garbage generated by the vessel in compliance with the Garbage Certificate (see Appendix 5 Ship Specific Garbage Management Plan).

CATEGORY		GARBAGE FRACTION	RECEPTACLE'S COLOR	RECEPTACLE'S MARKING
A	Plastics	including synthetic ropes and fishing nets, plastic garbage bags, incinerator ashes from plastic products	Black	PLASTIC
B	Food wastes		Green	FOOD WASTE
C	Domestic wastes	General Domestic Waste	Blue	DOMESTIC WASTE
		Expired Medicines		
		Paper		
		Glass		
		Metal cans etc.		
D	Cooking oil		Brown	COOKING OIL
E	Incinerator ashes		Orange	INCINERATOR ASH
F	Asbestos Containing Material		Red	OPERATIONAL WASTE
	Operational wastes	Pyrotechnics		
		Oily contaminated rags		
		Paint & Chemical residues		
		Medical Waste		
		Aerosols		
		Metal (other than cans)		
		Wood		
G	Animal carcass(es)			N/A
H	Fishing Gear			N/A
I	E-Waste	Fluorescent Light tubes	Grey	E-WASTE
		Electrical devices		
		Electrical equipment		
		Printer Cartridges		
		Batteries etc.		
J	Cargo Residues (non-HME)			In cargo tank
K	Cargo Residues (HME)			In cargo tank

7.6 Disposal of Solid Bulk Cargo Residue

The disposal of dry bulk cargo residues is regulated by the requirements of MARPOL Annex V, which governs garbage disposal at sea.

This Plan includes measures to mitigate the effects of spillage; spillages on deck and hatch covers should be placed in the hold with the cargo, as far as practicable, upon completion of loading. Upon completion of discharge, holds, decks and hatch covers should be thoroughly cleaned and swept down with any residual cargo being discharged to shore, as far as practicable.

Cargo residues are included in the definition of garbage within the meaning of Annex V, regulation 1.9 and may be discharged while ship is en route and as follows:

- 12 nautical miles from the nearest land for cargo residues that cannot be recovered using commonly available methods for unloading. These cargo residues shall not contain any substances classified as harmful to the marine environment
- Discharge of cargo residues that cannot be recovered using commonly available methods for unloading, where all the following conditions are satisfied:
  a) Cargo residues, cleaning agents or additives, contained in hold washing water do not include any substances classified as harmful to the marine environment, taking into account guidelines developed by the Organization;
  b) 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;
  c) No adequate reception facilities are available at those ports taking into account guidelines developed by the Organization; and
  d) Where the three conditions above have been fulfilled, discharge of cargo hold washing water containing residues shall be made as far as practicable from the nearest land or the nearest ice shelf and not less than 12 nautical miles from the nearest land or the nearest ice shelf.

However, cargo material contained in the cargo hold bilge water should not be treated as cargo residues if the cargo material is not harmful to the marine environment and the bilge water is discharged from a loaded hold through the ship's fixed piping bilge drainage system.
There may be occasions when cargo residue has to be discharged within these areas as an "exceptional discharge", and this should be recorded as such in the appropriate section of the vessel's Garbage Record Book.
Such a discharge would be permitted:

1. To clear a helicopter landing or winching area to ensure the safe Operation of a helicopter such that it is not hindered by dust thrown up by the down draft coming from its rotors.
2. Where there is a hindrance to the safe navigation of the vessel caused by dust being blown such as to obscure the view from the wheelhouse or bridge wings and precluding the keeping of a proper lookout.
3. Where cargo residues are causing a hazard to personnel working or transiting on deck or adjacent areas.

All cargo residue discharge operations should be recorded in the Garbage Record Book. Start and stop positions should be recorded along with the estimated quantity of cargo residue discharged into the sea. It should be borne in mind that Port State Control Officers might scrutinize records in the Garbage Record Book. Sanctions may result in the event of falsified entries being found.

Cargo residues contained in cargo hold bilge water are not considered cargo residues for disposal purposes as long as the residues concerned are not defined as Marine Pollutants in the International Maritime Dangerous Goods (IMDG) Code and are not covered under the discharge requirements of any other MARPOL annex. It is also accepted that a vessel at anchor for a period of time with empty holds may discharge hold bilge water, which is not directly related to any hold cleaning activities.

7.6.1 HME

Cargo residues are considered to be harmful to the marine environment (HME, CAT K) if they are residues of solid bulk cargoes, which are classified according to the criteria of the United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS) meeting the following parameters:

1. Acute Aquatic Toxicity Category 1; and/or
2. Chronic Aquatic Toxicity Category 1 or 2; and/or
3. Carcinogenicity Category 1A or 1B combined with not being rapidly degradable and having high bioaccumulation; and/or
4. Mutagenicity Category 1A or 1B combined with not being rapidly degradable and having high bioaccumulation; and/or
5. Reproductive Toxicity Category 1A or 1B combined with not being rapidly de-gradable and having high bioaccumulation; and/or
6. Specific Target Organ Toxicity Repeated Exposure Category 1 combined with not being rapidly degradable and having high bioaccumulation; and/or
7. Solid bulk cargoes containing or consisting of synthetic polymers, rubber, plastics, or plastic feedstock pellets (this includes materials that are shredded, milled, chopped or macerated or similar materials)."

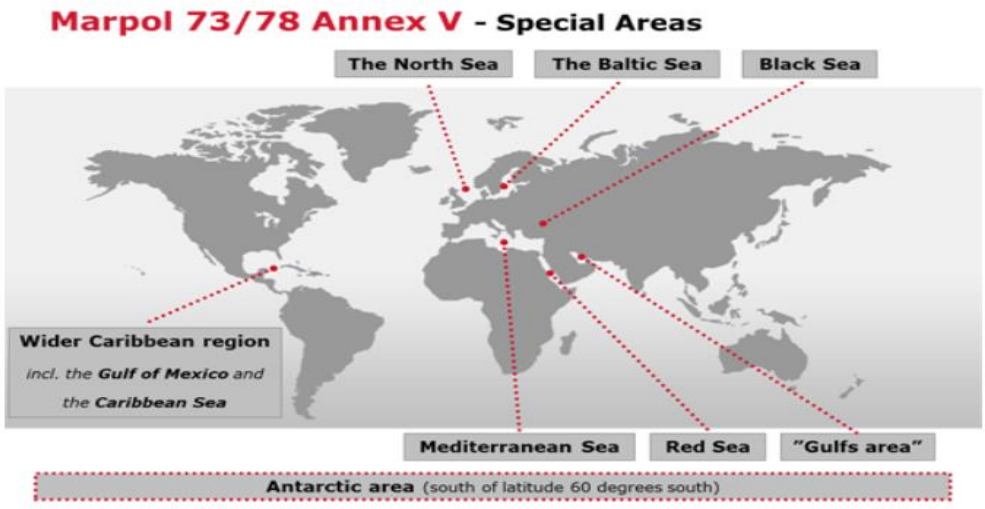
7.6.2 Labelling of Chemicals

7.7 Disposal at sea

MARPOL Annex V generally prohibits the discharge of garbage overboard, except for food waste, and bulk cargo residues/hold wash water under certain controlled conditions.
Any overboard disposal of garbage must comply with the relevant provisions of MARPOL Annex V.
Prior to the disposal at sea of any items in coastal or near-coastal waters, advice should be sought from local port agencies.
Any overboard garbage disposal (e.g. food waste, cargo hold wash water containing bulk cargo residues or cleaning agents) to sea must be authorised by the Chief Officer and recorded in the appropriate Garbage Record Book - Part I or Part II. The Bridge should be informed so that the correct position can be taken and recorded in the appropriate Garbage Record Book - Part I or Part II.
Ground food waste should be able to pass through a mesh of maximum 25mm.
Discharge of cargo residues and hold wash water containing cargo residues may only be undertaken for cargoes which are not Harmful to the Marine Environment (HME).

7.7.1 Special Areas

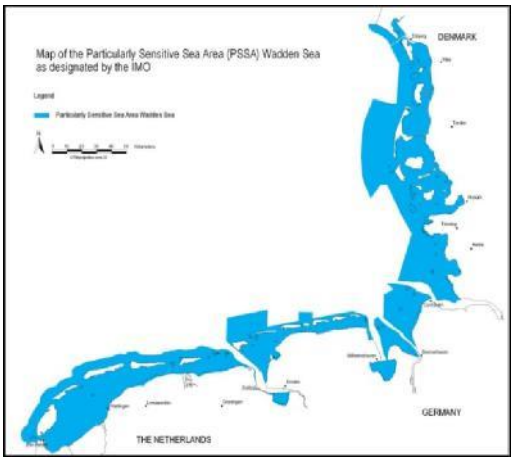
Special Areas according to MARPOL 73/78 are (maybe not limited to) defined as follows:



7.7.2 Particularly Sensitive Sea Area (PSSA)

A PSSA is an area that needs special protection through action by the IMO because of its significance for recognized ecological or socio-economic or scientific reasons, and which may be vulnerable to damage by international maritime activities.

The designation as a PSSA is a recognition as a worldwide unique nature area and the measures taken by the coastal state(s) to protect the area.



The PSSA's will be included on all sea charts. It will send a strong signal to and increase the awareness of the international shipping community of the particular sensitivity of the area against impacts from shipping. It will thus assist the countries in further protecting and using the area in a sustainable way.

The Wadden Sea (see picture) is the 5th designated PSSA worldwide, but the first designated on the basis of a joint application by three states and the first in Europe.

The following PSSAS have been designated:

- The Great Barrier Reef, Australia (designated a PSSA in 1990)
- The Sabana-Camaguey Archipelago in Cuba (1997)
- Malpelo Island, Colombia (2002)
- The sea around the Florida Keys, United States (2002)
- The Wadden Sea, Denmark, Germany, Netherlands (2002)
- Paracas National Reserve, Peru (2003)
- Western European Waters (2004)
- Extension of the existing Great Barrier Reef PSSA to include the Torres Strait (proposed by Australia and Papua New Guinea) (2005)
- Canary Islands, Spain (2004)
- The Galapagos Archipelago, Ecuador (2004)
- The Baltic Sea area, Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland and Sweden (2004)
- The Papahānaumokuākea Marine National Monument, United States (2008)
- The Strait of Bonifacio, France and Italy (2011)
- The Saba Bank, in the North-eastern Caribbean area of the Kingdom of the Netherlands (2012)
- Extension of Great Barrier Reef and Torres Strait to encompass the South-West part of the Coral Sea (2015)
- The Jomard Entrance, Papua New Guinea (2016)
- Tubbataha Reefs Natural Park, the Sulu Sea, Philippines (2017)
- North-Western Mediterranean Sea, France, Italy, Monaco and Spain (2023)

The PSSA's are already subject to an extensive regime of protective measures, consisting of both international and national regulations that aim at reducing the impacts from and risks related to shipping. Examples of relevant measures are the MARPOL Special Areas against discharge of oil and garbage, routing systems making certain shipping routes compulsory for ships carrying hazardous goods and compulsory reporting for ships. Therefore, the PSSA designation will not be associated with new measures. It will not limit shipping in the area or the use of the harbour and the major shipping routes have been excluded from the designation.
The PIC for Garbage Management of this vessel should be aware of the existence of PSSA's.

7.8 Disposing to Shore Facilities

Plan to discharge as much as possible garbage to shore. That means check with the agent regarding existence of shore garbage reception facilities, including recycling or reuse possibilities, reception and handling of garbage, if the port maintains garbage Containers on the pier, limits, prices, etc.
Prices of garbage disposal are important to decide most economical port to discharge (if applicable).

7.8.1 Advance Notification for waste delivery

In some ports, for logistical reasons, the providers of port reception facilities may require advance notification from the ship of its intention to use the facilities.

Inform the agent about the amount and kind of garbage to be discharged by using Advanced Notification form and plan to shift all stored garbage from storage places to the place from where garbage will be landed to keep reception time as short as possible.

Some ports do require information of garbage disposal well in advance and will not allow shore disposal if reporting regulations are not complied with.

Providing advance notification to the reception facility of the type and quantity of wastes/residues on board and the type and quantity intended to be delivered will greatly assist the reception facility operator in receiving the materials while minimizing any delay to the ship's normal port operation. General recommended practice is to provide at least 24 hours' notice, although specific requirements may vary by reception facility.

The Advanced Notification for waste delivery from is available in Appendix 2 of this GMP.

7.8.2 Waste Delivery to the Port Reception Facility

Vessels should check if any local regulations apply to garbage discharge to shore and ensure that these are fully complied with. For example: local regulations may determine how much of the waste on board must be delivered ashore i.e. all waste, or enough to make reaching next port possible, and may also impose health and safety requirements that are more stringent than those of the ship’s flag state. They may also determine the types of containers to be used when delivering waste ashore.

Whenever garbage is landed ashore, it is essential that a receipt is obtained which clearly shows the amount and type of garbage landed. If an official receipt is not provided, the format given in **Appendix 3** should be used. These receipts are to be retained onboard for inspection.

7.8.3 Records

Make sure that a proper disposal record will be issued by the reception facility and filed on board.

All Garbage Record Books should be retained on board for 5 years from the last entry.

7.8.3.1 Self-Disposal Record

If any garbage shall be disposed ashore where no official reception certificate may be issued to the vessel (like: public garbage bins, etc), the person in charge to carry out the plan shall issue a suitable record.
Such record (MEPC.1/Circ. 834) is shown in Appendix 3 of this GMP.

Appendix 1 Garbage Management Placard

Simplified overview of the discharge provisions of the revised MARPOL Annex V which entered into force on 1 March 2018

DISCLAIMER: Additional requirements may apply.

(Note: The table below is intended as a summary reference. The provisions in MARPOL Annex V and the Polar Code, not the table below, prevail.)

Garbage type[1]	All ships except platforms[4]		Regulation 5 Offshore platforms located more than 12 nm from nearest land and ships when alongside or within 500 metres of such platforms[4]
	Regulation 4 Outside special areas and Arctic waters (Distances are from the nearest land)	**Regulation 6 Within special areas and Arctic waters** (Distances are from nearest land, nearest ice-shelf or nearest fast ice)	
Food waste comminuted or ground[2]	≥3 nm, en route and as far as practicable	≥12 nm, en route and as far as practicable[3]	**Discharge permitted**
Food waste not comminuted or ground	≥12 nm, en route and as far as practicable	**Discharge prohibited**	**Discharge prohibited**
Cargo residues[5, 6] not contained in washwater	≥ 12 nm, en route and as far as practicable	**Discharge prohibited**	**Discharge prohibited**
Cargo residues[5, 6] contained in washwater		≥ 12 nm, en route and as far as practicable (subject to conditions in regulation 6.1.2 and paragraph 5.2.1.5 of part II-A of the Polar Code)	
Cleaning agents and additives[6] contained in cargo hold washwater	Discharge permitted	≥ 12 nm, en route and as far as practicable (subject to conditions in regulation 6.1.2 and paragraph 5.2.1.5 of part II-A of the Polar Code)	**Discharge prohibited**
Cleaning agents and additives[6] in deck and external surfaces washwater		Discharge permitted	
Animal Carcasses (should be split or otherwise treated to ensure the carcasses will sink immediately)	Must be en route and as far from the nearest land as possible. Should be >100 nm and maximum water depth	**Discharge prohibited**	**Discharge prohibited**
All other garbage including plastics, synthetic ropes, fishing gear, plastic garbage bags, incinerator ashes, clinkers, cooking oil, floating dunnage, lining and packing materials, paper, rags, glass, metal, bottles, crockery and similar refuse	**Discharge prohibited**	**Discharge prohibited**	**Discharge prohibited**

1 When garbage is mixed with or contaminated by other harmful substances prohibited from discharge or having different discharge requirements, the more stringent requirements shall apply.

2 Comminuted or ground food wastes must be able to pass through a screen with mesh no larger than 25 mm.

3 The discharge of introduced avian products in the Antarctic area is not permitted unless incinerated, autoclaved or otherwise treated to be made sterile. In polar waters, discharge shall be made as far as practicable from areas of ice concentration exceeding 1/10; in any case food wastes shall not be discharged onto the ice.

4 Offshore platforms located 12 nautical miles from nearest land and associated ships include all fixed or floating platforms engaged in exploration or exploitation or associated processing of seabed mineral resources, and all ships alongside or within 500 m of such platforms.

5 Cargo residues means only those cargo residues that cannot be recovered using commonly available methods for unloading.

6 These substances must not be harmful to the marine environment.

Appendix 2 Advanced Notification Form (ANF)

See IMO circular - MEPC.1/Circ.834

Notification of the Delivery of Wastes/Residues to ..... *(enter name of port or terminal)*
The master of a ship should forward the information below to the designated authority at least 24 hours in advance of arrival or upon departure of the previous port if the voyage is less than 24 hours.
This form should be retained on board the ship along with the appropriate Oil Record Book, Cargo Record Book or Garbage Record Book.

1. SHIP PARTICULARS

1.1 Name of ship:	1.5 Owner or operator:
1.2 IMO number:	1.6 Distinctive number or letters:
1.3 Gross tonnage:	1.7 Flag State:
1.4 Type of ship: ☐ Oil tanker ☐ Chemical tanker ☐ Bulk carrier ☐ Container ☐ Other cargo ship ☐ Passenger ship ☐ Ro-ro ☐ Other (specify)	

2. PORT AND VOYAGE PARTICULARS

2.1 Location/Terminal name and POC:	2.6 Last Port where wastes/residues were delivered:
2.2 Arrival Date and Time:	2.7 Date of Last Delivery:
2.3 Departure Date and Time:	2.8 Next Port of Delivery (if known):
2.4 Last Port and Country:	2.9 Person submitting this form is (if other than the master):
2.5 Next Port and Country (if known):	

3. TYPE AND AMOUNT OF WASTES/RESIDUES FOR DISCHARGE TO FACILITY

MARPOL Annex I – Oil	**Quantity (m^3)**
Oily bilge water	
Oily residues (sludge)	
Oily tank washings	
Dirty ballast water	
Scale and sludge from tank cleaning	
Other (please specify)	
MARPOL Annex II – NLS	**Quantity (m^3) /Name**[1]
Category X substance	
Category Y substance	
Category Z substance	
OS – other substances	
MARPOL Annex IV – Sewage	**Quantity (m^3)**
Sewage	

MARPOL Annex V – Garbage	**Quantity (m^3)**
A. Plastics	
B. Food wastes	
C. Domestic wastes	
D. Cooking oil	
E. Incinerator ashes	
F. Operational wastes	
G. Animal carcasses	
H. Fishing gear	
I. E-waste	
J. Cargo residues (non-HME)[2]	
K. Cargo residues (HME)[2]	
MARPOL Annex VI – Air pollution	**Quantity (m^3)**
Ozone-depleting substances and equipment containing such substances	
Exhaust gas-cleaning residues	

[1] Indicate the proper shipping name of the NLS involved.
[2] Indicate the proper shipping name of the dry cargo.

Name of ship:	IMO Number:

Please state below the approximate amount of wastes/residues remaining on board and the percentage of maximum storage capacity. If delivering all wastes/residues on board at this port please strike through this table and tick the box below. If delivering some or no waste/residue, please complete all columns.

I confirm that I am delivering all the wastes/residues held on board this vessel (as shown on page 1) at this port

Type	Maximum dedicated storage capacity (m^3)	Amount of wastes/residues retained on board (m^3)	Port at which remaining wastes/residues will be delivered (if known)	Estimate amount of wastes/residues to be generated between notification and next port of call (m^3)
MARPOL Annex I – Oil				
Oily bilge water				
Oily residues (sludge)				
Oily tank washings				
Dirty ballast water				
Scale and sludge from tank cleaning				
Other (please specify)				
MARPOL Annex II – NLS[3]				
Category X substance				
Category Y substance				
Category Z substance				
OS – other substances				
MARPOL Annex IV – Sewage				
Sewage				
MARPOL Annex V – Garbage				
A. Plastics				
B. Food wastes				
C. Domestic wastes				
D. Cooking oil				
E. Incinerator ashes				
F. Operational wastes				
G. Animal carcasses				
H. Fishing gear				
I. E-waste				
J. Cargo residues (non-HME)[4]				
K. Cargo residues (HME)[4]				
MARPOL Annex VI – Air pollution				
Ozone-depleting substances and equipment containing such substances				
Exhaust gas-cleaning residues				

Date: .....

Name and Position: .....

Time: .....

Signature: .....

[3] *Indicate the proper shipping name of the NLS involved.*

[4] *Indicate the proper shipping name of the dry cargo.*

Appendix 3 Standard Format for the Waste Delivery Receipt

The designated representative of the reception facility provider should provide the following form to the master of a ship that has just delivered wastes/residues.
This form shall be retained on board the ship along with the appropriate Oil Record Book, Cargo Record Book or Garbage Record Book.

1. RECEPTION FACILITY AND PORT PARTICULARS

1.1 Location/Terminal name:
1.2 Reception facility provider(s)
1.3 Treatment facility provider(s) – if different from above:
1.4 Waste/residue Discharge Date and Time from: to

2. SHIP PARTICULARS

2.1 Name of ship:	2.5 Owner or operator:
2.2 IMO number:	2.6 Distinctive number or letters:
2.3 Gross tonnage:	2.7 Flag State:
2.4 Type of ship: ☐ Oil tanker ☐ Chemical tanker ☐ Bulk carrier ☐ Container ☐ Other cargo ship ☐ Passenger ship ☐ Ro-ro ☐ Other (specify)	

3. TYPE AND AMOUNT OF WASTES/RESIDUES RECEIVED

MARPOL Annex I – Oil	**Quantity (m^3)**
Oily bilge water	
Oily residues (sludge)	
Oily tank washings	
Dirty ballast water	
Scale and sludge from tank cleaning	
Other (please specify)	
MARPOL Annex II – NLS	**Quantity (m^3)/Name**[1]
Category X substance	
Category Y substance	
Category Z substance	
OS – other substance	
MARPOL Annex IV – Sewage	**Quantity (m^3)**

MARPOL Annex V – Garbage	**Quantity (m^3)**
A. Plastics	
B. Food wastes	
C. Domestic wastes	
D. Cooking oil	
E. Incinerator ashes	
F. Operational wastes	
G. Animal carcasses	
H. Fishing gear	
I. E-waste	
J. Cargo residues (non-HME)[2]	
K. Cargo residues (HME)[2]	
MARPOL Annex VI – related	**Quantity (m^3)**
Ozone-depleting substances and equipment containing such substances	
Exhaust gas-cleaning residues	

On behalf of the port facility I confirm that the above wastes/residues were delivered.

Signature: …… Full Name and Company Stamp: ……

1 Indicate the proper shipping name of the NLS involved.
2 Indicate the proper shipping name of the dry cargo.

Appendix 4 Inadequacy of Port Reception Facilities Reporting Form

See IMO MEPC.1/Circ.834/Rev.1

The Master of a ship having encountered difficulties in discharging waste to reception facilities should forward the information below, together with any supporting documentation, to Marlow HSEQ Dept.

1 SHIP'S PARTICULARS

1.1	Name of ship:	
1.2	Owner or operator:	
1.3	Distinctive number or letters:	
1.4	IMO Number:	
1.5	Gross tonnage:	
1.6	Port of registry:	
1.7	Flag State:	
1.8	Type of ship:	☐ Oil tanker / ☐ Chemical tanker / ☐ Bulk carrier / ☐ Container / ☐ Other cargo ship / ☐ Passenger ship / ☐ Ro-ro / ☐ Other (specify)

2 PORT PARTICULARS

2.1	Country:	
2.2	Name of port or area:	
2.3	Location/terminal name: (e.g. berth/terminal/jetty)	
2.4	Name of company operating the reception facility (if applicable):	
2.5	Type of port operation: (delete as appropriate)	Unloading port / Loading port / Shipyard / Other (specify)
2.6	Date of arrival: (dd/mm/yyyy)	
2.7	Date of occurrence: (dd/mm/yyyy)	
2.8	Date of departure: (dd/mm/yyyy)	

3 INADEQUACIES OF FACILITIES

Type and amount of waste for which the port reception facility was inadequate, and nature of problems encountered

Type of waste	**Amount for discharge (m^3)**	**Amount <u>not</u> accepted (m^3)**	**Problems encountered** Indicate the problems encountered by using one or more of the following code letters, as appropriate. A No facility available B Undue delay C Use of facility technically not possible D Inconvenient location E Vessel had to shift berth involving delay/cost F Unreasonable charges for use of facilities G Other (please specify in paragraph 3.2)
MARPOL Annex I-related			
Type of oily waste:			
Oily bilge water			
Oily residues (sludge)			
Oily tank washings (slops)			
Dirty ballast water			
Scale and sludge from tank cleaning			
Other (please specify)			
MARPOL Annex II-related			
Category of NLS[1] residue/water mixture for discharge to facility from tank washings:			
Category X substance			
Category Y substance			
Category Z substance			
MARPOL Annex IV-related			
Sewage			
MARPOL Annex V-related			

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. Animal carcasses			
H. Fishing gear			
I. E-waste			
J. Cargo residues (non-HME) [2]			
K. Cargo residues (HME) [2]			
MARPOL Annex VI-related			
Ozone-depleting substances and equipment containing such substances			
Exhaust gas-cleaning residues			

[1] Indicate, in paragraph 3.2, the proper shipping name of the NLS involved and whether the substance is designated as solidifying or high viscosity as per MARPOL Annex II regulation 1 paragraphs 15.1 and 17.1 respectively.
[2] Indicate the proper shipping name of the dry cargo.

3.2 Additional information with regard to the problems identified in the above table.

_____
_____
_____

3.3 Did you discuss these problems or report them to the port reception facility?

Yes No

If yes, with whom (please specify) _____

If yes, what was the response of the port reception facility to your concerns?

_____

3.4 Did you give prior notification (in accordance with relevant port requirements) about the vessel's requirements for reception facilities?

Yes No Not applicable

If yes, did you receive confirmation on the availability of reception facilities on arrival?
Yes No

4 ADDITIONAL REMARKS/COMMENTS

Master's signature & vessel stamp

Date: __/__/____ (dd/mm/yyyy)

Appendix 5 Ship Specific Garbage Management Plan

Amend highlighted sections as required to make the information ship specific. **Total Garbage Storage capacity and locations should be compared to reflect the data in the Certificate of Conformance for MARPOL Annex V.**

CATEGORY		GARBAGE FRACTION	RECEPTACLE'S MARKING	RECEPTACLES CAPACITY, QUANTITY	STORAGE LOCATION	RECEPTACLE'S MARKING
A	Plastics	including synthetic ropes and fishing nets, plastic garbage bags, incinerator ashes from plastic products	Plastic	Plastic with lid 0.21 m3	Main deck	Plastic
B	Food wastes		Food waste	Plastic with lid 0.21 m3	Main deck	Food waste
C	Domestic wastes	General Domestic Waste	Blue	Metal Bin with lid 0.21 m3	Main deck	Domestic wastes
		Expired Medicines				
		Paper				
		Glass				
		Metal cans etc.				
D	Cooking oil		Brown	Plastic Bin with lid 0.8 m3	Paint store	Cooking oil
E	Incinerator ashes		Orange	N/A	N/A	Incinerator ashes
F	Operational wastes	Expired Pyrotechnics	Red	In original packing	Paint Store	Operational wastes
		Oily contaminated rags		Metal Drum with lid 0.8 m3	Main deck	
		Paint & Chemical residues		Metal Bin with lid 0.21 m3	Main deck	
		Medical Waste		Plastic Container 0.4 m3	Paint store	
		Aerosols		Plastic Bin with lid 0.6 m3	Main deck	
		Metal (other than cans)				
		Wood				
I	E-Waste	Fluorescent Light tubes	Grey	Metal Bin ca. 0.7 m3	Main deck, stb side, fwd	E-WASTE
		Electrical devices				
		Electrical equipment				
		Printer Cartridges				
		Batteries etc.		Sealed plastic Bin with lid on main deck 0.18 m3	Main deck	

Garbage Processing Devices

TYPE	LOCATION	CATEGORIES OF GARBAGE	RESPONSIBLE PERSON
INCINERATOR TYPE	ENGINE ROOM	PLASTICS, OTHERS, OILY RAGS	C/E
GRINDER TYPE	GALLEY	FOOD WASTE	COOK / STW
COMPACTOR	GARBAGE SORTING ROOM	PLASTICS, OTHERS,	C/O