ABS Garbage Management Manual

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.

The garbage management plan shall provide written procedures for collecting, storing, processing and disposing of ship-generated garbage, including the use of the equipment onboard. It shall also designate the person in charge of carrying out the plan. Such a plan shall be in accordance with the guidelines developed by the organization and written in the working language of the crew. There shall also be a Garbage Record Book for recording each discharge operation or completed incineration.

- **What is the intent of the Garbage Management Manual?**
  To provide a systematic approach to the enforcement and control of garbage in the marine environment.

- **How will that be accomplished?**
  By requiring shipboard management plans for crews to follow which provide written procedures for collecting, storing , processing and disposing of ship-generated garbage, including the use of equipment onboard, in accordance with Regulation 9[2] of Annex V MARPOL 73/78.

- **Do I need to comply?**
  Every ship of 400 tons gross tonnage and above, and every ship which is certified to carry 15 persons or more must comply by developing and implementing a garbage management system as specified in a Garbage Management Manual.

- **Is there a waiver on compliance?**
  Yes, if the Administration agrees for:
  [1] any ship engaged on voyages of one hour or less in duration which is certified to carry 15 persons or more; or
  [2] Fixed or floating platforms while engaged in exploration and exploitation of the seabed.

- **Does there have to be an onboard person in charge of carrying out the garbage management plan?**
  Yes. The company has to appoint a designated person onboard with the responsibility for carrying out the garbage management plan. The choice will depend on ship type and trade.

- **Are crew responsibilities and procedures to be identified?**
  Yes. All aspects of handling and storing of garbage by crew should be identified in the appropriate operating procedures and manual.

- **Is it possible to use shipboard equipment for processing garbage?**
  Yes. Depending on ship type, area of operation, and size of crew, ships may be equipped with incinerators, compactors, comminuters, or other devices for garbage processing.

- **Does my garbage management plan have to be approved or certified?**
  No. but there must be a garbage management plan for the crew to follow in accordance with the guidelines for the implementation of Annex V MARPOL 73/78. It shall provide written procedures for collecting, storing, processing and disposing of garbage, including the use of equipment onboard. It shall also designate the person in charge of carrying out the plan. There shall also be a record book for recording each discharge or incineration.

- **Do garbage records have to be kept?**
  Yes. Each discharge operation, or completed incineration, shall be recorded in the Garbage Record Book and signed for on the date of the incineration or discharge by the officer in charge.

- **Is training required?**
  Yes. Training should include instruction on the definitions of garbage as well as the applicable requirements for handling and disposal.

- **Can port state inspections be carried out?**
  Yes. The competent authority of the Government of a Party to the Convention may inspect the Garbage Record Book onboard any ship to which this regulation applies while the ship is in its ports or offshore terminals, and may make a copy of any entry in that book, and may require the master of the ship to certify that the copy is a true copy of such an entry.

GARBAGE MANAGEMENT MANUAL

Regulations for the
Prevention of Pollution by
Garbage from Ships - Annex V of MARPOL 73/78

M.V./S.S. _____

Prepared by

INTRODUCTION

The intent of this document is to provide shipowners/operators with general information on the requirements for complying with regulation 9 of Annex V. Compliance with the provisions of Annex V will require careful planning by the owner/operator and proper execution by shipboard personnel. When developing the most appropriate procedures for handling and storing garbage. factors to take into account include type and size of the ship, the area of operation (e.g. distance from nearest land), shipboard garbage processing equipment and storage space, crew size, duration of the voyage, and regulations and reception facilities at ports of call.

APPLICABILITY

REGULATORY REQUIREMENTS

Amendments to Annex V of Marpol 73/78.

Placards, garbage management plans and garbage record-keeping.

(1) Every ship of 12 meters or more in length overall shall display placards which notify the crew and passengers of the disposal requirements of regulations 3 and 5 of this Annex, as applicable.

The placards shall be written in the working language of the ship's personnel and, for ships engaged in voyages to ports or offshore terminals under the jurisdiction of other Parties to the Convention, shall also be in English, French or Spanish.

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

(3) Every ship of 400 tons gross tonnage and above and every ship which is certified to carry 15 persons or more engaged in voyages to ports or offshore terminals under the jurisdiction of other Parties to the Convention and every fixed and floating platform engaged in exploration and exploitation of the sea-bed shall be provided with a **Garbage Record Book**. The **Garbage Record Book,** whether as a part of the ship's official log-book or otherwise, shall be in the form specified in the appendix to this Annex:

- Each discharge operation, or completed incineration, shall be recorded in the **Garbage Record Book** and signed for on the date of the incineration or discharge by the officer in charge. Each completed page of the **Garbage Record Book** shall be signed by the master of the ship. The entries in the **Garbage Record Book** shall be at least in English, French or Spanish. Where the entries are also made in an official language of the State whose flag the ship is entitled to fly are also used, these entries shall prevail in case of a dispute or discrepancy.

- The entry for each incineration or discharge shall include date and time, position of the ship, description of the garbage and the estimated amount incinerated or discharged;

- The **Garbage Record Book** shall be kept on board the ship and in such a place as to be available for inspection in a reasonable time. This document shall be preserved for a period of two years after the last entry is made on the record;

- In the event of discharge, escape or accidental loss referred to in regulation 6 of this Annex an entry shall be made in the **Garbage Record Book** of the circumstances of, and the reasons for, the loss.

(4) The Administration may waive the requirements for **Garbage Record Books** for:

- Any ship engaged on voyages of 1 hour or less in duration which is certified to carry 15 persons or more; or

- Fixed or floating platforms while engaged in exploration and exploitation of the sea-bed.

(5) The competent authority of the Government of a Party to the Convention may inspect the **Garbage Record Book** on board any ship to which this regulation applies while the ship is in its ports or offshore terminals and may make a copy of any entry in that book, and may require the master of the ship to certify that the copy is a true copy of such an entry. Any copy so made, which has been certified by the master of the ship as a true copy of an entry in the ship's **Garbage Record Book**, shall be admissible in any judicial proceedings as evidence of the facts stated in the entry. The inspection of a **Garbage Record Book** and the taking of a certified copy by the competent authority under this paragraph shall be performed as expeditiously as possible without causing the ship to be unduly delayed.

COMPLIANCE DATES

On 14 September 1995, IMO adopted, by resolution MEPC.65(37), amendments to the annex of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973. Regulation 9 to Annex V of MARPOL 73/78 entered into force effective 1 July 1997 for new ships and 1 July 1998 for ships built before 1 July 1997.

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

PROVISIONING PRACTICES

Although discharge at sea, (except in special areas) of a wide range of ship-generated garbage is permitted outside specified distances from the nearest land, it is recommended that whenever practicable ships use, as a primary means, port reception facilities. To minimize the generation of waste, provisioning practices should be reviewed with ship's suppliers in order to determine the optimum packaging for the products. Options include:

- Reusable packaging and use of containers. Disposable cups, utensils, dishes, towels and rags and other convenience items should be limited and replaced by washable items when possible.
- Where practical options exist, provisions packaged in or made of materials other than disposable plastic should be selected to replenish ship's supplies unless a reusable plastic alternative is available.
- Stowage systems and methods that reuse coverings, dunnage, shoring, lining and packing materials.
- Dunnage, lining and packaging materials generated in port during cargo discharge should preferably be disposed of at the port reception facilities and not retained onboard for discharge at sea.

DESIGNATED PERSON IN CHARGE (Environmental Control Officer)

As required in Regulation 9 (2), a designated person onboard shall be in charge of carrying out the Garbage Management plan. Such a decision by a Company will be determined by the ship type and trade. For ships other than passenger ships, a senior deck or engineer officer would be most appropriate. For passenger ships, more than one head of a department may be selected but with a coordinated effort to ensure compliance.

The onboard responsibility for carrying out the garbage management plan is:

- **(COMPANY TO IDENTIFY DESIGNATED CREW MEMBER)**

Support to the designated person can be provided by departmental staff. Such support is necessary in the collection, separation and processing of garbage to ensure that the onboard procedures are carried out in accordance with the garbage management plan.

Support staff representatives from deck, engine, catering or other job responsibilities are:

- **(COMPANY TO IDENTIFY DESIGNATED SUPPORT STAFF)**

From a regulatory perspective, the designated person in charge shall ensure that the procedures within the plan are implemented, which includes:

- Display placards in the appropriate language are positioned to notify the crew and passengers of the disposal requirements prescribed in regulations 3 and 5 of Annex V for garbage disposal within and outside special areas.
- The prescribed entries for each discharge operation or completed incineration are made in the Garbage Record Book.

DEFINITIONS

In developing a Garbage Management Plan, it is important to recognize the following definitions:

Food wastes are any spoiled or unspoiled victual substances, such as fruits, vegetables, dairy products, poultry, meat products, food scraps, food particles, and all other materials contaminated by such wastes, generated onboard ship, principally in the galley and dining areas.

Plastic means a solid material which contains as an essential ingredient one or more synthetic organic high 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. Plastics are used for a variety of marine purposes including, but not limited to, packaging (vapor-proof barriers, bottles, containers, liners), ship construction (fiberglass and laminated structures, siding, piping, insulation, flooring, carpets, fabrics, paints and finishes, adhesives, electrical and electronic components), disposable eating utensils and cups, bags, sheeting, floats, fishing nets, strapping bands, rope and line.

Domestic waste means all types of food wastes and wastes generated in the living spaces on board the ship.

Cargo-associated waste means all materials which have become wastes as a result of use onboard a ship for cargo stowage and handling. Cargo-associated waste includes but is not limited to dunnage, shoring, pallets, lining and packing materials, plywood, paper, cardboard, wire, and steel strapping.

Maintenance waste means materials collected in the engine department and the deck department while maintaining and operating the vessel, such as soot, machinery deposits, scraped paint, deck sweeping, wiping wastes, and rags, etc.

Operational wastes means all cargo-associated waste and maintenance waste, and cargo residues defined as garbage under cargo residues.

Oily rags are rags which have been saturated with oil as controlled in Annex I to the Convention. ***Contaminated rags*** are rags which have been saturated with a substance defined as a harmful substance in the other annexes to the Convention.

Cargo residues for the purposes of these guidelines are defined as the remnants of any cargo material on board that cannot be placed in proper cargo holds (loading excess and spillage) or which remain in cargo holds and elsewhere after unloading procedures are completed (unloading residual and spillage). However, cargo residues are expected to be in small quantities.

GENERAL INFORMATION

The most appropriate procedures for handling and storing garbage will vary depending on factors such as the type and size of the ship, the area of operation (e.g. distance from land), shipboard garbage processing equipment and storage space, crew size, duration of voyage, and regulations and reception facilities at ports of call. However, in view of the cost involved with the different ultimate disposal techniques, it may also be economically advantageous to keep garbage requiring special handling (e.g. hazardous wastes) separate from other garbage.

Given the importance of waste management plans, crew responsibilities and procedures for all aspects of handling and storing garbage should be identified in the appropriate crew and vessel operating manuals. Procedures for handling ship-generated garbage can be divided into four phases: collection, processing, storage and disposal.

COLLECTION

Procedures for collecting garbage should be based on consideration of what can and cannot be discarded overboard while en route. Three categories of distinctively marked garbage receptacles could be provided to sort garbage as it is generated. These separate receptacles (e.g. cans, bags or bins) would receive:

- plastics and plastics mixed with non-plastic garbage;
- food wastes (which include materials contaminated by such wastes); and
- other garbage which can be disposed of at sea.

Receptacles for each category should be clearly marked and distinguished by color, graphics, shape, size or location. These receptacles should be provided in appropriate spaces throughout the ship. Crew members and passengers should be advised of what garbage should or should not be discarded in them. Crew responsibilities should be assigned for collection or emptying of these receptacles and taking the garbage to the appropriate processing or storage location.

Plastics and Plastics Mixed with Non-Plastic Garbage

Plastic garbage must be retained onboard for discharge at port reception facilities unless reduced to ash by incineration. When plastic garbage is not separated from other garbage, the mixture must be treated as if it were all plastic.

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 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.

Other Garbage

Garbage in this category includes, but is not limited to, paper products, rags, glass, metal, bottles, crockery, dunnage, lining and packing materials. It is desirable to separate dunnage, lining and packing material which will float since this material is subject to a different discharge limit than other garbage in this category. Such garbage should be kept separate from other garbage and preferably retained for disposal in port.

Separate cans or bags could be provided for receiving and storing glass, metal, plastics, paper or other items which can be recycled.

Oily rags and contaminated rags must be kept onboard and discharged to a port reception facility or incinerated.

Company instructions and procedures should provided to shipboard personnel with the collection and separation requirements which are most appropriate for the vessel type and trade.

PROCESSING

Depending on factors such as the type of ship, area of operation, and size of crew, ships may be equipped with incinerators, compactors, comminuters or other devices for shipboard garbage processing. Appropriate members of the crew should be assigned for operating this equipment on a schedule commensurate with ship needs.

Use of such processing equipment makes it possible to discharge certain garbage at sea which otherwise would not be permitted, reducing shipboard space for storing garbage, making it easier to off-load garbage in ports, and enhancing assimilation of garbage discharged into the marine environment.

Compactors

Compactors make garbage easier to store, to transfer to port reception facilities and to dispose of at sea when discharge limitations permit.

Comminuters

Ships operating primarily beyond 3 nautical miles from the nearest land are encouraged to install and use comminuters to grind food wastes to a particle size capable of passing through a screen with openings no larger than 25 millimeters. Such a process is recommended even beyond 12 nautical miles because the particle size hastens assimilation into the marine environment.

Incinerators

Marine incinerators are predominantly designed for intermittent operation, hand fired and fed by hand. The ash or vapor may be hazardous.

Attention is drawn to the separate, but related requirements, of MARPOL Annex VI which entered into force on 19 May 2005 and requires that all shipboard incinerators installed on or after 01 January 2000 on ships that are flying the flag of MARPOL Annex VI signatory State to be approved by the Administration based on the requirements contained in IMO Resolution MEPC 76(40) on Standard Specification for Shipboard Incinerators. Such incinerators must also be operated within the limits laid down in Appendix IV of MARPOL Annex VI. Annex VI prohibits the incineration of MARPOL Annex I, II & III cargo residues, related contaminated packing materials, polychlorinated biphenyls (PCBs), garbage contaminated with more than traces of heavy metals and refined petroleum products containing halogen compounds. The incineration of sewage sludge and sludge oil, generated during the normal operation of the ship, is allowed in main or auxiliary power plant or boilers under Annex VI, but incineration by such methods is banned in ports, harbours and estuaries.

Incinerators installed prior to 01 January 2000 on board ships flying the flag of MARPOL Annex VI signatory State may still be used after entry into force of MARPOL Annex VI. Incinerators installed on board ships after 01 January 2000, which may have already been approved by the Administration to resolutions MEPC.59(33) or MEPC.76(40) specifications, may still be used after entry into force

of MARPOL Annex VI. Incinerators installed on vessels solely engaged in domestic trade may be exempted from the 01 January 2000 deadline but only up to entry into force of the Annex.

NOTE: IT HAS BEEN DETERMINED THAT THE RESIDUE FROM PLASTIC INCINERATION IS STILL CONSIDERED PLASTIC AND THUS CAN NOT BE DISCHARGED OVERBOARD.

Due to the potential environmental and health effects from combustion of by-products e.g. scraped paint, impregnated wood and PVC-based plastics, special precaution is required.

Special rules on incineration may be established by authorities in some ports and may exist in some special areas. Prior to using an incinerator while in port, permission may be required from the port authority concerned. In general, the use of shipboard garbage incinerators in ports in or near urban areas is discouraged as their use will add to possible air pollution in these areas.

STORAGE

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 disposal may require long-term storage 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.

Separate cans, drums, boxes, bags or other containers should be used for short-term (disposable garbage) and throughout the voyage (non-disposable garbage) storage.

All processed and unprocessed garbage which must be stored for any length of time should be in tight, securely covered containers.

Food wastes and associated garbage which are returned to port and which may carry disease or pests should be kept separate from garbage which does not contain such food wastes. Both types of garbage should be in separate, clearly marked containers to avoid incorrect disposal and treatment on land.

DISPOSAL

Although disposal is possible consistent with Annex V, discharge of garbage to port reception facilities should be given first priority. When disposing of garbage, the following points should be considered:

- Disposal of uncompacted garbage is convenient but results in a maximum number of floating objects which may reach shore even when discharged beyond 25 miles from the nearest land. If necessary and possible, weights should be added to promote sinking. Compacted bales of garbage should be discharged in water depths of 50 meters or more to prevent breaking up from wave action and currents.

- Maintenance wastes contaminated with substances, such as oil or toxic chemicals, are in some cases controlled under other annexes or other pollution control laws. In such cases, the more stringent disposal requirements take precedence.

- To ensure timely transfer of ship-generated garbage to port reception facilities, ship agents are to be advised for guidance. Disposal needs should be identified particularly when arrangements are necessary for garbage requiring special handling.

TRAINING

Training should be provided for all crew members who are involved in operating the garbage processing equipment, and handling and disposing of garbage as part of their operational responsibilities. Such a program should be reviewed annually and should define what constitutes garbage and the applicable regulations for handling and disposal.

Material for training could include posters, brochures, photographs and video tapes.

RECOMMENDATION FOR GOVERNMENTS

Governments are recommended to require all ships of their registry to permanently post a summary declaration stating that the prohibition and restrictions for discharging garbage from ships under Annex V and the penalties for failure to comply. It is suggested this declaration be placed on a placard at least 12.5cm by 20cm, made of durable material and fixed in a conspicuous place in galley spaces, the mess deck, bridge, main deck and other areas of the ship as, appropriate. The placard should be printed in the language or languages understood by the crew and passengers.

TABLE 1 - SUMMARY OF AT SEA GARBAGE DISPOSAL REGULATIONS

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
Paper, rags, glass, metal, bottles, 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	****	****	****

* Comminuted or ground garbage must be able to pass through a screen with mesh size no larger than 25 mm.

** Garbage disposal regulations for special areas shall take effect in accordance with regulation 5(4)(b) of Annex V.

*** 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.

**** When garbage is mixed with other harmful substances having different disposal or discharge requirements, the more stringent disposal requirements shall apply.

Note: The Baltic Sea Special Area Disposal Regulations took effect on 1 October 1989

TABLE 2 - OPTIONS FOR SHIPBOARD HANDLING AND DISPOSAL OF GARBAGE

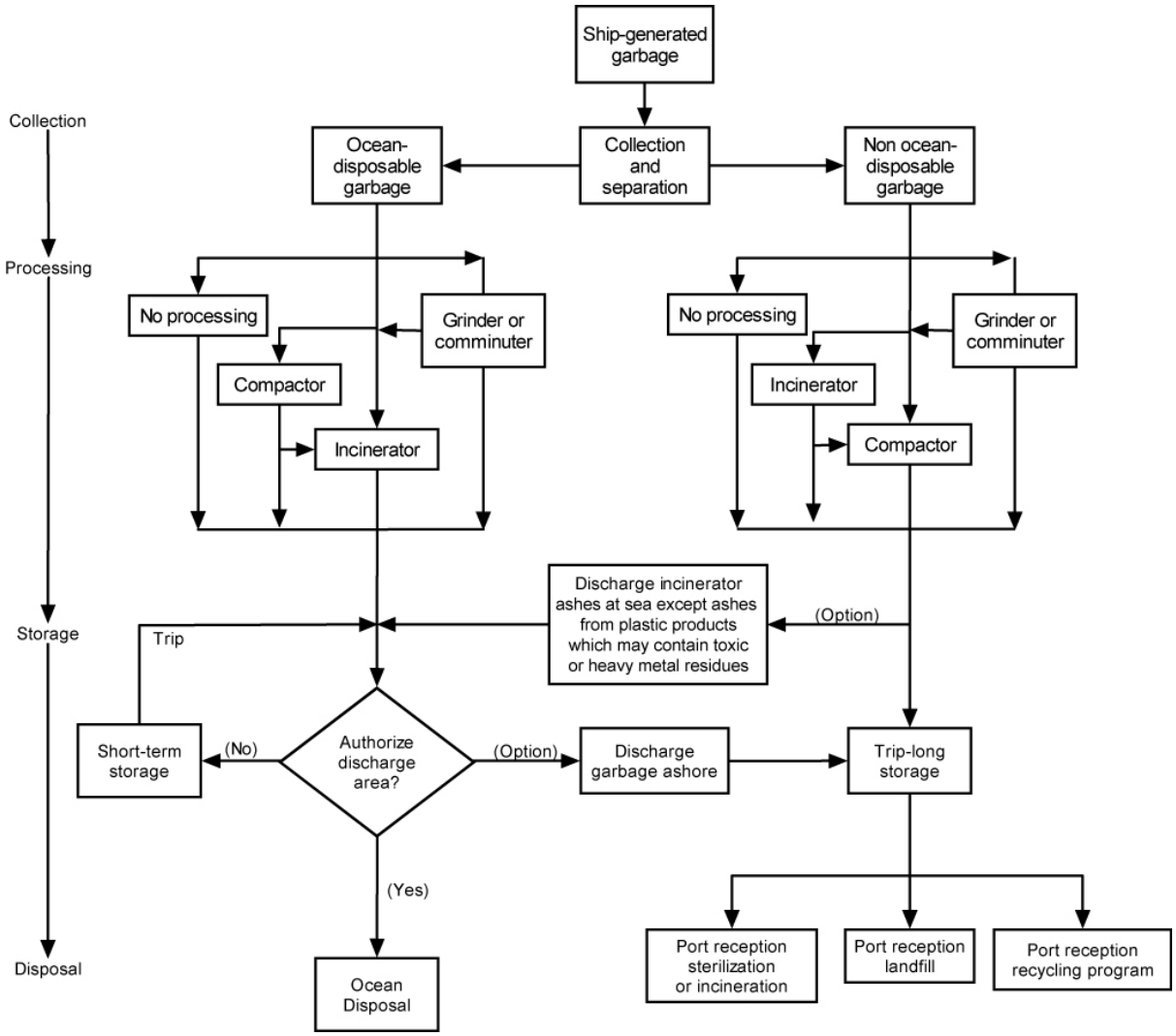

TABLE 3 – COMPACTION OPTIONS FOR SHIPBOARD-GENERATED GARBAGE

Typical examples	Special handling by vessel 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, fiber and paper board	Minor - reduce material to size for feed, minimal manual labor	Rapid	Approximately 80%	Medium	Minimum
Small metal drums, uncomminuted cargo packing, large pieces of wood	Moderate - longer manual labor time required to size material for feed	Slow	Approximately 50%	Relatively low	Moderate
Uncomminuted plastics	Major-very long manual labor 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

TABLE 4 - INCINERATION* OPTIONS FOR SHIPBOARD-GENERATED GARBAGE

Typical examples	Special handling by vessel personnel before incineration	Incineration characteristics				Onboard storage space
		Combust-ibility	Reduction of volume	Residual	Exhaust	
Paper packaging, food and beverage containers	Minor - easy to feed into hopper	High	Over 95%	Powder ash	Possibly smoky and not hazardous	Minimum
Fiber and paper board	Minor - reduce material to size for feed; minimum manual labor	High	Over 95%	Powder ash	Possibly smoky and not hazardous	Minimum
Plastic packaging, food and beverage containers, etc.	Minor - easy to feed into hopper	High	Over 95%	Powder ash	Possibly smoky and hazardous based on incinerator design	Minimum
Plastic sheeting, netting, rope and bulk material	Moderate manual labor time for size reduction	High	Over 95%	Powder ash	Possibly smoky and hazardous based on incinerator design	Minimum
Rubber hoses and bulk pieces	Major manual labor time for size reduction	High	Over 95%	Powder ash	Possibly smoky and 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 labor time for 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 scraps	Moderate manual labor time for size reduction	High	Over 95%	Powder ash	Possibly smoky and not hazardous	Minimum

* Check local rules for possible reductions

APPENDIX

FORM OF GARBAGE RECORD BOOK

Name of ship_____

Distinctive number or letters_____

IMO No._____

Period_____ From_____ To_____

1. INTRODUCTION

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

2. GARBAGE AND GARBAGE MANAGEMENT

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

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

3. DESCRIPTION OF THE GARBAGE

   The garbage is to be grouped into categories for the purposes of this record book as follows:

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

4. ENTRIES IN THE GARBAGE RECORD BOOK

4.1 Entries in the Garbage Record Book shall be made on each of the following occasions:

(a) When garbage is discharged into the sea:

(i) Date and time or discharge
(ii) Position of the ship (latitude and longitude). Note for cargo residue discharges, include discharge start and stop positions.
(iii) Category of garbage discharged
(iv) Estimated amount discharged for each category in M^3
(v) Signature of the officer in charge of the operation.

(b) When garbage is discharged to reception facilities ashore or to other ships:

(i) Date and time of discharge
(ii) Port or facility, or name of ship
(iii) Category of garbage discharged
(iv) Estimated amount discharged for each category in M^3
(v) Signature of the officer in charge of the operation

(c) When garbage is incinerated:

(i) Date and time of start and stop of incineration
(ii) Position of the ship (latitude and longitude)
(iii) Estimated amount incinerated in M^3
(iv) Signature of the officer in charge of the operation.

(d) Accidental or other exceptional discharges of garbage

(i) Time of occurrence
(ii) Port or position of the ship at time of occurrence
(iii) Estimated amount and category of garbage
(iv) Circumstances of disposal, escape or loss, the reason therefore and general remarks.

4.2 Receipts

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

4.3 Amount of garbage

The amount of garbage onboard should be estimated in M^3, if possible separately according to category. The Garbage Record Book contains many references to estimated amount of garbage. It is recognized that the accuracy of estimating amounts of garbage is left to interpretation. Volume estimates will differ before and after processing. Some processing procedures may not allow for a usable estimate of volume, e.g. the continuous processing of food waste. Such factors should be taken into consideration when making and interpreting entries made in a record.

RECORD OF GARBAGE DISCHARGES

Ship's Name_____

Distinctive No., or Letters_____

IMO No._____

Garbage Categories

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

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

Date/ Time	Position of the Ship	Estimated Amount Discharged into Sea (M^3)					Estimated Amount Discharged to Reception Facilities or to other ship (M^3)		Estimated Amount Incinerated (M^3)	Certifica-tion/ Signature
		CAT 2	CAT 3	CAT 4	CAT 5	CAT 6	CAT 1	Other		

Master's Signature: _____ Date: _____

Appendix

Form for reporting alleged inadequacy of port reception facilities for garbage.

1. Country _____

   Name of port or area _____

   Location in the port (e.g. berth/terminal/jetty) _____

   Date of incident _____

2. Type and amount of garbage for discharge to facility:

   a. Total amount:

      food waste _____ M^3

      cargo-associated waste _____ M^3

      maintenance waste _____ M^3

      other _____ M^3

   b. Amount not accepted by the facility

      food waste _____ M^3

      cargo-associated waste _____ M^3

      maintenance waste _____ M^3

      other _____ M^3

3. Special problems encountered:

   Undue delay
   Inconvenient location of facilities
   Unreasonable charges for use of facilities
   Use of facility not technically possible
   Special national regulations
   Other

4. Remarks (e.g. information received from port authorities or operators of reception facilities)

_____

_____

_____

5. Ship's particulars _____

   Name of ship _____

   Owner or operator _____

   Distinctive number or letters _____

   Port of registry _____

   Number of persons on board _____

_____ _____
Date of completion of form Signature of master