

**NATIONAL GUIDELINES ON
THE COLLECTION & DISPOSAL OF
MARPOL 73/78 ANNEX 1 WASTES**

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1.0 Introduction

Jamaica as an island state is heavily dependent on international shipping which accounts for over ninety percent 90% of its trade. In 2008 the ports of Jamaica received approximately four thousand ship calls and this number is expected to increase with the current expansion of container and cruise facilities in the Island and the recovery of the global economy.

Although commercial shipping contributes to the majority of shipping activity in Jamaica the risk to the marine environment posed by the locally based and visiting yachts (approximately 1000 vessels) cannot be ignored.

All vessels whether they be engaged in commercial or non commercial activities generate waste on board whether from the engine and cargo spaces (oil) or from the crew or passengers on board (garbage and sewage).

Jamaica does not currently have adequate ship generated waste reception facilities (WRF) and the legal and administrative framework to regulate the management of ship generated waste is equally inadequate.

Despite the absence of a regime for the management of ship generated waste it is reported that the informal collection of MARPOL Annex 1 (oily waste) and Annex V (garbage) has been carried on in Jamaica for the past thirty (30) years.

Several studies on the requirements and feasibility of WRF in Jamaica and the Caribbean have been conducted since 1993 when the Wider Caribbean Region was declared as a Special Area for MARPOL 73/78 Annex V (Garbage). This status allows for more stringent and in many cases, zero discharge standards to be applied and enforced against ships operating in the region.

The first such study, the Wider Caribbean Region Initiative on Ship Generated Waste (WSCISW) was sponsored in 1994 by the World Bank through the Global Environment Facility and implemented by the International Maritime Organisation. This project not only sought to enable countries in the region to establish facilities for Annex V waste to enable the Special Area status to come into force but also addressed the issue of WRF for Annex 1 and Annex II wastes.

Of note the Special Area Status has not yet come into force as a number of States including Jamaica are not yet in a position to demonstrate to the International Maritime Organisation that they have adequate reception facilities to receive ship generated garbage.

In an effort to enable Jamaica to carry out the recommendations under the WCISW project, the Shipping Association of Jamaica in 1999 spearheaded a project supported by the German government to determine the feasibility of a WRF in the port of Kingston.

The last major study was conducted in 2004 in the form of Component D of the IADB funded project on the *Institutional Strengthening to Support Environmental Management of Kingston Harbour*. Component D had as its outputs a siting study, the development of financial and technical models for establishing a waste reception facility for oily waste/sludge and garbage and the preparation of bid ready documents for the establishment and operation of a WRF in the port of Kingston.

Having regard to a number of challenges not the least being the costs related to the establishing a fixed facility as recommended by the consultants and the assignment “ownership” of the project implementation to a government agency, no WRF has been established.

Having regard to the above-mentioned unregulated collection and discharge of ship generated garbage and sludge, the Government of Jamaica has found it necessary to develop the following guidelines which will serve as an interim measure pending the implementation of an adequate regulatory framework. The guidelines were developed by the national guidelines subcommittee of the National Oceans & Coastal Zone Management (NOCZM) Committee and seek to formally address the matter of ship generated wastes being imported into the island by the use of Environmentally Sound Management (ESM) practices.

2.0 Objectives of the Guidelines

The following Guidelines have been prepared to assist port operators, ship agents, vessel operators and government agencies involved in the management of ship generated wastes.

The Guidelines provide information for the collection and management of ship generated wastes which are regulated by the International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978 related thereto (MARPOL 73/78).

The Guidelines are consistent and complement the *Comprehensive Manual on Port Reception Facilities* published by the International Maritime Organization (IMO).

The Guidelines serve to partially discharge Jamaica's obligation to provide adequate WRF under MARPOL 73/78 and to reduce and/or eliminate the inappropriate disposal of wastes from vessels into Jamaica's marine and terrestrial environment.

3.0 Scope of the Guidelines

The guidelines are limited to the management of Annex I waste and guidelines on the other wastes will have to be developed separately.

3.1 Description of Annex 1 Waste

Annex 1 – residues and mixtures of petroleum in any form including crude oil, fuel oil, sludge, oil refuse and refined products. (MARPOL 73/78 Reg. 1).

Annex I waste must be distinguished from BASEL wastes which are not generated from the operation of the ship but are wastes carried as cargo from

one State to another. In this regard the Natural Resources Conservation Authority (Hazardous Waste)(Control of Transboundary Movement) Regulations, 2002 which incorporates the Basel Convention specifically excludes at regulation 3(b), ship generated waste.

Additionally Annex I waste is not sludge as currently regulated by NEPA although the guidelines and proposed regulations addressing sludge could be applied in relation to MARPOL 73/78 Annex IV waste (sewage).

4.0 Legal Basis for the Guidelines

4.1 International Convention- MARPOL 73/78

Jamaica is a state party to MARPOL 73/78 which came into force for the country on March 13, 1991.

The Convention has six annexes which regulate the following wastes:

- Annex I Oil
- Annex II Noxious Liquid Substances carried in Bulk
- Annex III Harmful Substances carried in Packaged Form
- Annex IV Sewage
- Annex V Garbage
- Annex VI Air pollution.

The Convention regulates the prevention of marine pollution by the discharge of the above-mentioned wastes by establishing hull construction standards to minimize accidental pollution from grounding or collision and equipment standards to minimize operational discharges.

Jamaica as a State party to MARPOL 73/78 is required to implement the Flag, Port and Coastal State obligations of the Convention. Flag State obligations require Jamaica to regulate ships entitled to fly its flag while Port State obligations involve the regulation of foreign registered ship currently lying in or intending to call at a Jamaican port.

The Flag State obligations under the MARPOL 73/78 are currently carried out by the Maritime Authority as administrator of the registers of Jamaican ships pursuant to the Shipping Act, 1998 while Ship inspectors of the Maritime Authority carry out Jamaica's port State Control obligations by inspecting foreign ships calling at Jamaican ports for compliance with the Convention, which requires vessel operators to retain, treat and/or discharge certain wastes which have been generated on board.

Jamaica's coastal obligations under MARPOL 73/78 also include providing adequate reception facilities in its ports to collect wastes which the ships have been required to retain on board.

Regulation 12 of MARPOL 73/78 Annex 1 which is identical to equivalent provisions addressing other ship generated wastes states as follows:

“The Government of each Party to the convention undertakes to ensure the provision of facilities at oil loading terminals, repair ports and other ports in which ships have oily residues to discharge, of facilities for the reception of such residues and oily mixtures as remain from oil tankers and other ships adequate to meet the needs of the ships using them without causing undue delay.

Jamaica as a State Party is therefore obliged to provide not only adequate WRF but also facilities which are adequate for the type of ships which call at Jamaican ports and which will not cause undue delay when being used by such ships.

Failure to provide adequate WRF will amount to a breach of Jamaica's treaty obligations and ships are required to report to the IMO State parties which have inadequate facilities at their ports.

Although MARPOL 73/78 regulates the six types of pollutants listed above, Jamaica is currently obliged to establish waste reception facilities for Oil, Noxious Liquid Substances in Bulk, Sewage, Garbage and residues from ship air emissions.

4.2 Primary Local Legislations

The current legal framework for receiving oily waste from ships is very limited and can primarily be found in the Quarantine Act, 1951, Public Health Act, 1985 and the National Solid Waste Management Authority Act, 2002.

Quarantine Act, 1951

The Quarantine Authority established under the Act is mandated through its Health and other Officers to take steps to reduce the spread of infectious diseases by way of ships. The Quarantine (Maritime) Regulations made under the Act contains detailed provisions regarding the duty of ships calling at Jamaican ports and the powers of the Health Officers in relation to public health issues on board such ships. Such powers include the grant of pratique or the detention of the ship pending the grant of pratique.

Having regard to the nature of Annex I waste, the Quarantine Act would apply in so far as such waste may be deemed to pose a risk to the spread of infectious diseases.

Public Health Act, 1985

The Public Health Act provides for Local Boards of Health in each Parish to regulate all matters related to public health and in the case of the Parishes of Kingston and Saint Andrew, the Council of the Kingston and Saint Andrew Corporation (KSAC) carries out the functions of the Local Board of Health.

Local Boards of Health are empowered under the direction of the Minister of Health to *inter alia* make regulations for the sanitary collection and disposal of garbage and other waste matter. “Garbage” in turn has been defined under regulations made under the Act to include “*refuse of any description, whether generated by domestic, commercial or industrial activity, and all forms of solid and liquid waste matter.*”

“Premises” are also defined under the Act to include all ships and boats within the territorial waters of Jamaica and Local Board or Medical Officers (Health) or other persons so authorized by the Minister of Health may board ships for compliance with the regulations.

National Solid Waste Management Authority Act, 2002

The National Solid Waste Management Authority is responsible under the Act for taking all steps which are necessary for the effective management of

solid waste in Jamaica. The functions of the Authority include the provision of facilities for the collection, treatment and disposal of solid waste.

“Solid waste” has been defined under the Act to include refuse and sludge from a waste treatment facility and semi solid or liquid matter resulting from industrial or commercial activities while the term “solid waste management” includes the collection, storage, reuse, recycling, transfer, treatment and disposal of solid waste.

4.3 Other Local Legislation

The Shipping Act, 1998 does not specifically regulate Annex 1 wastes. However, it requires at Section 15(4) for ships to carry insurance to cover any discharge of such waste into the marine environment which would include discharges which occur during the transfer of the waste from a vessel to a WRF.

The Natural Resources Conservation Authority Act, 1991 as stated in its preamble establishes the legal framework for the management, conservation and protection of the natural resources of Jamaica. The Natural Resources (Prescribed Areas) (Prohibition of Categories of Enterprise, Construction and Development) Order, 1996 made under the Act includes hazardous waste storage, transportation and disposal facilities as some of the activities which require a permit in order to be undertaken. The management of Annex I waste in so far as it involves storage in a WRF, transportation and final disposal at an end user’s facility would therefore fall within the permitting and licensing regime of the NRCA.

Of note the Shipping (Pollution Prevention, Response, Liability and Compensation) Bill 2010 which will be administered by the Maritime Authority is in an advanced stage and will specifically address and incorporate the provisions of MARPOL 73/78.

Having regard to the absence of a clear policy and legislative framework to manage Annex 1 wastes, the guidelines will serve as an interim measure pending the development of legislation to ensure that ship generated waste is received and managed in accordance with the MARPOL 73/78 while at the same time reducing any public health risk or other threats to the environment.

5.0 Options for Disposal of Oily Wastes¹ (MARPOL 73/78 Annex I)

The choice of disposal methods should be based on the environmental outcomes of the options. Where several potential options exist the costs need to be considered against the benefits of each option.

□ Incineration

Oily wastes may be incinerated however not every type of waste can be handled by a specific incinerator. Pollution should not however be transferred to the air as waste compounds can cause serious air pollution.

□ Land farming

The naturally occurring microbial population in the soil degrades oil; 80-90% of the oil is destroyed within 2-3 year. More expensive than landfill as more land is needed and more maintenance of the disposal site is required.

□ Landfill Storage

This should only be applied to oily wastes with a low hydrocarbon content and a high solids content. Oil or liquid oily wastes should never be dumped on a landfill. Waste can be treated with binding agents such as lime with additives to render it more suitable to serve as filling material. Groundwater should regularly be checked for contamination.

¹ Source: Department of the Environment, Australia

6.0 Underlying Principles for Annex 1 Waste Management

The following are the principles underlying the management of MARPOL Annex 1 waste:

1. Precautionary principle;
2. Polluter pays principle;
3. Waste contractors and End users should be licensed;
4. Confirmation of receipt of all waste to be discharged must be received from End Users prior to discharge to Waste contractors;
5. Confirmation of use of the all waste to be discharged must be received from End Users prior to discharge; and
6. Fees charged for services provided by agencies to facilitate the management of the waste should be comparable with best practice in other ports;
7. Customs duty should not be levied on the waste discharged in accordance with the guidelines.

7.0 Administering Authorities

The public and private sector organizations responsible for the management of Annex 1 waste are as follows:

Public

1. Quarantine Authority
2. National Environment and Planning Agency
3. Office of Disaster Preparedness and Emergency Management
4. National Solid Waste Management Authority
5. Maritime Authority of Jamaica
6. Port Authority of Jamaica
7. Environmental Health Unit – Ministry of Health

Private

1. Ship Operators/ Master
2. Ship Agents
3. Port Operators
4. Waste Contractors
5. End users

7.1 Responsibilities of the Administering Authorities

Private Sector

Ship Operator/ Agent/Port Operator/ Master

- Advise Quarantine Authority and Maritime Authority of Jamaica of request for discharge of Annex1 waste at least 24 hours before arrival of the vessel from which the waste will be discharged using Advanced Notification Form at Appendix 1
- The Advanced Notification Form at Appendix 1 must be fully completed and signed by the Master
- Advise the Quarantine Authority and Maritime Authority of Jamaica name of Waste Contractor
- Provide to Quarantine Authority and MAJ written confirmation of the end user(s) acceptance of the waste to be discharged
- Ensure that the original copy of the Waste Delivery Receipt is submitted to Quarantine Authority
- Inform Port Operators of the intention to discharge wastes from vessels
- All communications should be copied to the Agencies listed in Appendix 1?

Port Operator

- To facilitate movement of waste contractors equipment over the port facility
- To provide necessary passes to allow waste contractor to enter ports
- To maintain and implement as necessary an emergency response plan

Waste Contractor

- Apply for and obtain a Permit from NEPA for the transportation of waste

- Provide to Quarantine Authority a copy of a valid permit to store/transport the waste at least 24 hours before arrival of the vessel from which the waste will be discharged, if requested
- To have in his possession the Permit and to make it available for inspection
- Waste Delivery Receipt at Appendix 2 to be completed & signed verifying waste received & delivered
- Transport the waste safely and directly to the end users' facility
- Submit completed copy of Waste Delivery Receipt to Quarantine Authority and NEPA

End User

- Apply for and obtain a Permit from NEPA for the storage, treatment and disposal of waste
- End user should confirm in writing the amount of waste to be collected and its final use for each transaction to the Shipping Agent)
- Submit completed copy of (as per condition of the Permit) Waste Delivery Receipt at Appendix 2
- Testing of the waste (where applicable) by an approved laboratory (as per condition of the Permit)
- A sample of the waste is to be retained (as per condition of the Permit)

Public Sector

Quarantine Division

- In consultation with NEPA/MAJ approve requests for discharge of waste
- Attend vessel and approve discharge of wastes
- Reserves the authority to suspend the collection of the waste due to a potential public health risk
- Receive completed Advanced Notification Form from Shipping Agent
- Submit copy of manifests to NEPA

NSWMA

- Issue Licence to waste contractors disposing at their facility
- Determine approved places and modes of disposal of waste where they are acting as end user
- Obtain Permit from NEPA where they intend to act as end user

- Advise Quarantine Authority, Shipping Agents & NEPA on the suspension/revocation of licence issued to contractors

NEPA

- Issue Permit for transportation to waste contractors
- Issue Permit for storage, treatment/disposal & transportation to end user
- Issue Licence to end user for discharge of effluent as a result of treatment
- Advise Quarantine Authority on the suspension/revocation of permits issued to contractors
- Receive and analyse test results

MAJ

- Receive copies of requests for discharge of waste from ship Agents
- Inspect ships including oily record book for compliance with MARPOL 73/78 Annex 1 requirements
- Receive reports from ships regarding adequacy of reception facilities
- Approve spill response arrangements for the transfer of the waste
- Grant licences to vessels which act as waste contractors

PAJ

- Receive copies of requests for discharge of waste from ship Agents
- Permit the entry of vessels to ports
- Permit/direct vessels to the discharge berths or places
- Regulate the safe movement of vessels in ports

Appendix I

Members of the Guidelines Subcommittee of the National Oceans & Coastal Zone Management Committee

The Port Authority of Jamaica
The Maritime Authority of Jamaica
The Ministry of Health
The National Environment and Planning Agency and
The National Solid Waste Management Authority
The Ministry of Foreign Affairs and Foreign Trade

List of Agencies to which All communications should be sent.

Prepared By Subcommittee of the NOCZM Committee July 2010

APPENDIX 1

ADVANCE NOTIFICATION FORM FOR WASTE DELIVERY TO PORT RECEPTION FACILITIES

Notification of the Delivery of Waste 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 shall be retained on board the vessel along with the appropriate Oil RB, or Garbage RB

DELIVERY FROM SHIPS

1. SHIP PARTICULARS

1.1 Name of ship:	1.5 Owner or operator:	Agent:
1.2 IMO number:	1.6 Distinctive number or letters:	
1.3 Gross tonnage:	1.7 Flag State:	
1.4 Type of ship: <input type="checkbox"/> Oil tanker <input type="checkbox"/> Chemical tanker <input type="checkbox"/> Bulk carrier <input type="checkbox"/> Container <input type="checkbox"/> Other cargo ship <input type="checkbox"/> Passenger ship <input type="checkbox"/> Ro-ro <input type="checkbox"/> Other (specify)		

2. PORT AND VOYAGE PARTICULARS

2.1 Location/Terminal name and POC:	2.6 Last Port where waste was 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 WASTE 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 V – Garbage	Quantity (m ³)
Plastic	
Floating dunnage, lining, or packing material	
Ground-down paper products, rags, glass, metal, bottles, crockery etc.	
Cargo residues ² , paper products, rags, glass, metal, bottles, crockery, etc.	
Food waste	
Incinerator ash	
Other wastes (specify)	

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

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

Type	Maximum dedicated storage capacity m ³	Amount of waste retained on board m ³	Port at which remaining waste will be delivered (if known)	Estimate amount of waste to be generated between notification and next port of call m ³
MARPOL Annex I – Oil				
Oily bilge water				
Oily residues (sludges)				
Oily tank washings				
Dirty ballast water				
Scale and sludge from tank cleaning				
Other (please specify)				
MARPOL Annex V – Garbage				
Plastic				
Floating dunnage, lining or packing material				
Ground paper products, rags, glass, metal, bottles, crockery				
Cargo residues, paper products, rags, glass, metal bottles, crockery				
Food waste				
Incinerator ash				
Other wastes (specify)				

Date:

Name and Position:

Time:

Signature:

4. WASTE CONTRACTOR AND END USERS PARTICULARS

4.1 Name of Waste Contractor:	4.3 Name of End User
4.2 Permit No.	4.4 Permit No. Distinctive number or letters:
4.3 Type of Equipment : <input type="checkbox"/> tank wagon Barge <input type="checkbox"/> Other (Please state)	

APPENDIX 2

STANDARD FORMAT FOR THE WASTE DELIVERY RECEIPT FOLLOWING A SHIP'S USE OF PORT RECEPTION FACILITIES (MEPC.1/Circ.645)

The designated representative of the reception facility provider should provide the following form to the master of a ship that has just delivered waste.

This form should be retained on board the vessel along with the appropriate Oil RB, or Garbage RB

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 Discharge Date and Time from:	to

QUARANTINE OFFICER'S REMARKS:

Date and time: Signature:

2. SHIP PARTICULARS

2.1 Name of ship:	2.5 Owner or operator:	Agent
2.2 IMO number:	2.6 Distinctive number or letters:	
2.3 Gross tonnage:	2.7 Flag State:	
2.4 Type of ship: <input type="checkbox"/> Oil tanker <input type="checkbox"/> Chemical tanker <input type="checkbox"/> Bulk carrier <input type="checkbox"/> Container <input type="checkbox"/> Other cargo ship <input type="checkbox"/> Passenger ship <input type="checkbox"/> Ro-ro <input type="checkbox"/> Other (specify)		

Date and time: Master's Signature:

3. TYPE AND AMOUNT OF WASTE RECEIVED FROM VESSEL

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 V – Garbage	Quantity (m ³)
Plastic	
Floating dunnage, lining, or packing materials	
Ground paper products, rags, glass, metal, bottles, crockery	
Cargo residues, paper products, rags, glass, metal, bottles, crockery, etc.	
Food waste	
Incinerator ash	
Other wastes (specify)	

Date and time:

Permit No:

Equipment Used:

Name of Waste Contractor

Signature.....

4. TYPE AND AMOUNT OF WASTE RECEIVED FROM WASTE CONTRACTOR

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 V – Garbage	Quantity (m ³)
Plastic	
Floating dunnage, lining, or packing materials	
Ground paper products, rags, glass, metal, bottles, crockery	
Cargo residues, paper products, rags, glass, metal, bottles, crockery, etc.	
Food waste	
Incinerator ash	
Other wastes (specify)	

Date:

Permit No:

Time:

Equipment Used:

Name of End User.....

Signature :