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**Ships and marine technology — Marine  
environment protection — Management  
and handling of shipboard garbage**

*Navires et technologie marine — Protection de l'environnement  
marin — Gestion et manutention des déchets à bord du navire*



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ISO copyright office  
Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.org](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

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# Contents

Page

<b>Foreword</b> .....	<b>iv</b>
<b>Introduction</b> .....	<b>v</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>3.1 General</b> .....	<b>1</b>
<b>3.2 Garbage</b> .....	<b>2</b>
<b>4 Requirements</b> .....	<b>3</b>
<b>4.1 General</b> .....	<b>3</b>
<b>4.2 Classification of garbage</b> .....	<b>3</b>
<b>4.3 Cargo residues and cargo-associated waste</b> .....	<b>4</b>
<b>4.4 Collection and segregation of garbage</b> .....	<b>4</b>
<b>4.5 Storage</b> .....	<b>5</b>
<b>4.6 Treatment (processing)</b> .....	<b>8</b>
<b>4.7 Process of landing garbage</b> .....	<b>8</b>
<b>5 Garbage management</b> .....	<b>8</b>
<b>5.1 Garbage management plans</b> .....	<b>8</b>
<b>5.2 Garbage volume</b> .....	<b>9</b>
<b>5.3 Garbage treatment techniques</b> .....	<b>9</b>
<b>5.4 Facilities to land garbage</b> .....	<b>9</b>
<b>5.5 Documentation</b> .....	<b>10</b>
<b>5.6 Waste minimization</b> .....	<b>10</b>
<b>5.7 Garbage management audits</b> .....	<b>11</b>
<b>Annex A (informative) Examples of calculating the expected amount of waste</b> .....	<b>13</b>
<b>Annex B (informative) Examples of treatment processes used onboard ships to reduce garbage volume</b> .....	<b>15</b>
<b>Annex C (informative) An example of a garbage data sheet for use in waste auditing</b> .....	<b>17</b>
<b>Bibliography</b> .....	<b>18</b>

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 21070 was prepared by Technical Committee ISO/TC 8, *Ships and marine technology*, Subcommittee SC 2, *Marine environment protection*.

## Introduction

The discharge of solid waste from shipping is extensively controlled by Annex V of MARPOL (under revision 2010-2011), in conjunction with other regional arrangements such as Directive 2000/59/EC of the European Parliament and of the Council of 27 November 2000 on port reception facilities for ship-generated waste and cargo residues. Additionally, states parties to the MARPOL Convention have undertaken national implementing legislation to regulate and enforce provisions for handling ships' waste and for providing adequate reception facilities at ports and terminals subject to a party's flag state and port state control authorities. There is also significant international discussion both in the International Maritime Organization (IMO) and other fora on how to manage this issue in the future and best practice has been recommended by various maritime administrations and organizations representing industry.

Present mechanisms for managing and landing the collection of garbage generated onboard ships often fail, as there are no general regulations or International Standards for ships and international ports concerning segregation, handing over procedures and reception facilities. This International Standard goes some way to address this issue, providing a standard for the minimization, management and segregation of ships' garbage, so that it can be handled onboard and landed efficiently to the relevant reception facilities onshore.

To obtain the most efficient management of waste and to reduce the time and resource burden in segregating and handling it on the ship and in the ports, the concept of waste minimization has been integrated into this International Standard by incorporating the following basic principle:

**“Prevention before recycling before energy recovery before disposal”**

This International Standard concentrates on:

- minimization of waste prior to sailing;
- minimization of waste at source on the ship;
- garbage collection at the source;
- waste segregation on the ship into defined categories that are recognized globally and fit into the many different waste categorization systems around the world;
- waste minimization once segregated;
- waste storage onboard ship; and
- health and safety concerns surrounding the handling, storage and landing of waste.

Both owners and coastal states are increasingly aware of the importance of well-organized and managed waste collection and its benefits, especially with respect to health and safety onboard ships, the reduction of pollution and the potential cost benefits for owners and national governments. This International Standard provides a fixed standard for segregated garbage that any harbour facility worldwide may expect when a ship arrives in port. However, this International Standard does not consider the available various (and numerous) shoreside waste-handling systems that exist, but may give the initial push to build up recycling facilities of solid waste. An International Standard is being developed for the reception of ships' waste by ports that will work in conjunction with this International Standard.

In the future, this International Standard may be expanded to include guidance for the handling of other waste.



# Ships and marine technology — Marine environment protection — Management and handling of shipboard garbage

## 1 Scope

The requirements of MARPOL Annex V set the minimum standard for garbage management that apply to ships. Applicable national and regional regulations exceeding the requirements of MARPOL Annex V will also need to be observed. This International Standard applies to the management and handling of garbage generated onboard ships during the period the garbage will be onboard. The definition of garbage in this International Standard is as defined in MARPOL Annex V. This International Standard contains procedures for the shipboard management of garbage, including handling, collection, separation, marking, treatment and storage. It also describes the vessel-to-shore interface and the delivery of garbage from the ship to the port reception facility.

## 2 Normative references

The following referenced documents are indispensable for the application of this International Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

*International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL) Annex I to VI, as amended*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1 General

#### 3.1.1

##### **discharge**

in relation to harmful substances or effluents containing such substances, any release, howsoever caused, from a ship including any escape, disposal, spilling, leaking, pumping, emitting, or emptying

[MARPOL 1973, Article 2(3)(a)]

#### 3.1.2

##### **effluent**

discharged liquid (that may contain harmful substances/residues in solution or suspension)

#### 3.1.3

##### **harmful substance**

any substance which, if introduced into the sea, is liable to create hazards to human health, harm living resources and marine life, and damage amenities or interfere with other legitimate uses of the sea, and includes any substance subject to control by the MARPOL Convention

#### 3.1.4

##### **hazardous waste**

any waste which, due to its nature, physical, chemical or infectious properties, is potentially hazardous to human health and/or the environment during use, handling, storage or transportation

NOTE It includes any material which requires special disposal techniques to eliminate or reduce the hazard.