
**Ships and marine technology —
Marine environment protection —
Arrangement and management of port
waste reception facilities**

*Navires et technologie maritime — Protection de l'environnement
marin — Disposition et gestion des installations portuaires de
collecte des déchets*



This document is a preview generated by EBS



COPYRIGHT PROTECTED DOCUMENT

© ISO 2013

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

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
Web www.iso.org

Published in Switzerland

Contents

Page

| | |
|---|-----------|
| Foreword | iv |
| Introduction | v |
| 1 Scope | 1 |
| 2 Normative references | 1 |
| 3 Terms and definitions | 1 |
| 4 Waste management strategy elements | 3 |
| 4.1 General | 3 |
| 4.2 Administrative and legal matters | 3 |
| 4.3 Technology | 3 |
| 4.4 Infrastructure and support services | 3 |
| 5 Design and operation of PRFs | 4 |
| 5.1 General | 4 |
| 5.2 Port characteristics | 4 |
| 5.3 Types | 5 |
| 5.4 Waste characteristics | 5 |
| 5.5 Design capacity | 6 |
| 5.6 Waste handling capabilities | 6 |
| 5.7 Participation in segregation, recycling or disposal programs | 7 |
| 6 Port waste management plan (PWMP) | 7 |
| 6.1 Key elements in the development of a PWMP | 8 |
| 6.2 Legislation and regulatory considerations | 9 |
| 6.3 Port structure and administration | 10 |
| 6.4 Official responsibilities | 11 |
| 6.5 Waste management | 12 |
| 6.6 Cost recovery system — Financial considerations | 13 |
| 6.7 Data collection and monitoring | 14 |
| 6.8 Pre- and ongoing consultation | 15 |
| 6.9 Dissemination of information related to the PRF | 15 |
| 6.10 Additional documentation | 16 |
| 7 Publication and implementation | 16 |
| 7.1 Implementation | 17 |
| 7.2 PWMP review | 17 |
| 7.3 Periodic auditing | 17 |
| Annex A (normative) Examples of waste streams originating from ships | 18 |
| Annex B (normative) Waste conversion factors | 22 |
| Bibliography | 23 |

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. www.iso.org/directives

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received. www.iso.org/patents

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

The committee responsible for this document is ISO/TC 8, *Ships and marine technology*, Subcommittee SC 2, *Marine environment protection*.

Introduction

The development of adequate Port Reception Facilities (PRFs) for ship generated waste and cargo residues is a major element in the management of each of the shipboard waste streams covered by the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL) Annex 1 to VI, as amended, excluding Annex III (packaged dangerous goods). MARPOL requires that Party States ensure the provision of adequate reception facilities in ports to receive these wastes. Parties to MARPOL are encouraged to develop implementing legislation and should consider incorporating regional and intergovernmental legislation.¹⁾ However, due to operational, ownership, geographic, and legislative differences in ports, there is a large disparity in how operations are conducted. In order to overcome some of the major issues, IMO, through its Flag State Implementation (FSI) Subcommittee developed an action programme to tackle the inadequacy of port reception facilities.

This International Standard provides a method for addressing ship generated waste and cargo residues from when it is delivered from the ship to how it is managed ashore. The provision, operation and use of PRFs are inherently linked, so this International Standard addresses the design of the PRFs, and their operation and management. It is designed to be used by ports and terminals with existing PRFs which aim to refine their systems; it is also to be used by new ports and terminals that are developing PRFs.

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

- For waste generated aboard a vessel:

“Prevention before recycling before energy recovery before disposal”

- Once the waste is landed ashore:

“Avoidance before reduction before reuse before recycling before incineration with energy recovery before disposal”

Ship owners and operators, cargo owners, and port and terminal owners and operators, along with governments, are aware of the importance of well organized and managed waste collection, especially with respect to health and safety onboard ships and at ports and terminals. It has been acknowledged at the IMO that standard methodologies for waste management both onboard ships and ashore at PRFs would harmonize practices and ensure a smooth delivery of ship generated waste to shore-side facilities.²⁾ The parties to the Basel Convention also support the development of this International Standard and have requested the Secretariat to continue its cooperation with ISO with the objective of including the Basel Convention requirements of waste minimization and environmentally sound management in this International Standard.

ISO has published ISO 21070, which provides a methodology for ships to segregate their garbage. Thus, port facilities worldwide may therefore expect a certain level of segregated ship generated waste. However, ISO 21070 cannot work alone and needs to be complemented by a parallel International Standard for reception of the waste. This International Standard assists in the planning for the provision of an appropriate PRF.

Many ports and terminals have invested much in achieving ISO 14001 Environmental Management Systems accreditation. This International Standard is also meant to complement ISO 14001 by adding a port component which extends the principles of ISO 14001 to ships' waste management in ports. It provides a specific methodology that any port, harbour, terminal or marina can apply to the planning, development and operation of its PRF. This International Standard can be incorporated easily into

1) An example of intergovernmental legislation is “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”. Regional arrangements between countries or ports to jointly provide facilities have also been agreed.

2) This has been reflected in the FSI Action Programme, Work Item 3.2 “Equipment/Technology – Standardize garbage segregation requirements and containment identification.”

other plans for achieving ISO 14001 accreditation, as an extension that focuses on PRFs. Conversely, the processes put in place during the preparations for ISO 14001 accreditation will assist in meeting the development of a holistic Port Waste Management Plan (PWMP) under this International Standard.

This document is a preview generated by EVS

Ships and marine technology — Marine environment protection — Arrangement and management of port waste reception facilities

1 Scope

Parties to MARPOL are obligated as Port States to ensure that port reception facilities (PRFs) adequate to meet the needs of the ships using them without causing undue delay are provided at their ports and terminals. MARPOL does not seek to regulate the management of ship generated waste at ports and terminals beyond the reception facility requirement. However, ports and terminals must observe any national and regional regulations. While these regulations exceed the scope of MARPOL, the IMO recognizes the need to manage ship generated waste at ports and terminals as part of an environmentally sound management approach for avoiding, minimizing and eliminating pollution from ships.

This International Standard applies to the management of ship generated waste regulated by MARPOL that is discharged at ports and terminals. It also covers principles and issues that should be considered in the development of a port waste management plan (PWMP), its implementation and PRF operations. The operation of any PRF is governed by the principles and procedures included in the PWMP. The procedures to operate the PRF and the development of a PWMP are closely linked and therefore are integrated into this International Standard.

This International Standard addresses the principles and issues that should be considered in:

- The development of a port waste management strategy;
- The design and operation of PRFs;
- PWMP development, implementation and compliance; and
- PRF management and accountability.

This International Standard has been designed to be used by ports of any size and capability. It does not give specifics on the size or location of PRFs in each port, but provides a list of principles to be considered and applied to any size or type of port or terminal (e.g. marina, fishing port, container terminal, oil terminal, roll on/roll off terminal, cruise terminal, ferry terminal, bulk or general cargo terminal, ship repair or recycling facility, and offshore terminal). This International Standard can also be used by those ports that have entered into regional arrangements for the provision of their PRF, or inland ports and marinas, providing that the definition of waste and its management in the national legislation of the facility are referenced accordingly. Many ports already have systems in place that work efficiently; therefore this International Standard can be used by ports with existing PRFs as well as new ports or existing ports developing new PRFs.

2 Normative references

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

ISO 21070:2011, *Ships and marine technology — Marine environment protection — Management and handling of shipboard garbage*

3 Terms and definitions

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