International Standard

ISO 30005

Second edition

Ships and marine technology — Ship recycling management — Information control for hazardous materials in the manufacturing chain of shipbuilding and ship operations

Navires et technologie maritime — Management du recyclage des navires — Contrôle des informations sur les matières dangereuses intervenant dans la chaîne de construction du navire et durant le service du navire

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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 document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

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

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 8, *Ships and marine technology*.

This second edition cancels and replaces the first edition (ISO 30005:2012), which has been technically revised.

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The main changes are as follows:

— the normative references have been updated;

— definitions have been added to Clause 3;

— specifications have been added on how to list loosely fitted equipment, fixed batteries containing lead acid or other hazardous materials, and similar materials/items that contain hazardous materials that potentially exceed the threshold value;

— further details have been added on materials which are not required to be listed in the inventory;

— determination of the threshold value of asbestos, polychlorinated biphenyls and polychlorinated naphthalenes, and amendments to the threshold value of polybrominated biphenyls have been added;

— the Table B.2 has been updated with further details on the classification and examples;

— Annexes C and I have been added.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

This document has been developed in response to demand from the marine industry for a standard concerning ship recycling, allowing relevant stakeholders to gather, exchange and utilize information on hazardous substances which are present throughout the lifecycle of ships.

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Ships and marine technology — Ship recycling management — Information control for hazardous materials in the manufacturing chain of shipbuilding and ship operations

1 Scope

This document provides requirements and guidance for the effective management, communication, and maintenance of information regarding the use of hazardous materials, which are used in the manufacturing chain of shipbuilding and ship operations.

The requirements in this document are aligned with the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships (SR/CONF/45).

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

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3.1
supplier
company which provides products, such as a manufacturer, trader or agency

3.2
upstream supplier
supplier (3.1) which provides goods to a *downstream supplier* (3.3)

3.3
downstream supplier
supplier (3.1) which manufactures finished components, products or materials of any kind providing them to a customer for its final use or application

3.4
new ship
ship for which:

a) the building contract is placed on or after 26 June 2025, or

b) in the absence of a building contract, the keel is laid, or is at a similar stage of construction, six months or more after 26 June 2025, or

c) the delivery is 30 months or more after 26 June 2025

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3.5
new installation
installation of systems, equipment, insulation, or other material on a ship after 26 June 2025

3.6
hazardous material
HazMat
material or substance which is liable to create hazards to human health or the environment

3.7
shipowner
person(s) or company registered as the owner of the ship or, in the absence of registration, the person(s) or company who own(s) the ship, or any other organization or person such as the manager, or the bareboat charterer, who has assumed the responsibility for operation of the ship from the owner of the ship

Note 1 to entry: This term also includes those who have ownership of the ship for a limited period pending its sale or handing over to a ship recycling facility.

3.8
exemption
materials that are not required to be listed in Part I the inventory of hazardous materials (IHM), even if such materials or items exceed the IHM threshold values

3.9
fixed
condition that equipment or materials are securely fitted with the ship, such as by welding or with bolts, riveted or cemented, and used at their position, including electrical cables and gaskets

3.10
loosely fitted equipment
equipment on board the ship which are not *fixed* (3.9), such as fire extinguishers, distress flares, and lifebuoys

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4 Information management

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4.1 General requirements

Ship specific information on hazardous materials (HazMat) which are present on board is collected and managed in the form of an inventory of hazardous materials (IHM). The process of gathering this information differs between new and existing ships. However, in order to control the use of hazardous materials, the person responsible for collecting this information in both new and existing ships shall:

a) ensure that prohibitions or restrictions for the installation or use of hazardous materials on board ships are taken into consideration;

   NOTE The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships (SR/CONF/45), Appendix 1 contains a list of prohibitions and restrictions.

b) prohibit or restrict the installation or use of hazardous materials on ships, while in ports, newbuilding shipyards, ship repair yards, or offshore terminals;

c) take effective measures to ensure that ships comply with a) and b); and

d) supervise a system for maintenance of the material declaration (MD), the supplier's declaration of conformity (SDoC) and IHM.

Information for ships regarding hazardous materials shall be controlled by continuous maintenance of the initial or last verified/certified IHM. Each ship shall have on board a verified/certified IHM which shall be verified or re-certified at least every five years.

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4.2 Inventory of hazardous materials (IHM) requirements policy

4.2.1 Scope of the IHM

The IHM shall consist of three different parts, namely Part I, Part II and Part III, and be specific to each ship.

a) Part I lists materials contained in the ship structure or equipment. Materials which contain hazardous materials listed in Tables A.1 and A.2 correspond to Part I. Once prepared and certified, the materials listed in Part I shall be maintained during the whole lifecycle of a ship.

b) Part II lists operationally generated wastes. Items listed in Table B.1 correspond to Parts II and III of the IHM. Part II shall be developed before the ship is destined to be recycled, or at the final voyage at latest.

c) Part III includes potentially hazardous materials that are listed in Tables B.1 and B.2, in stores and items excluded from the IHM Part I which fall under the exclusions specified in Table B.2. It shall be developed before the ship is destined to be recycled, or at the final voyage at latest.

4.2.2 Materials to be listed in the inventory

The related hazardous materials that can be found on board, including their location and quantity, are grouped in the tables below as follows.

a) Table A.1 covers the materials contained in ship parts, equipment and systems which shall be listed in the IHM Part I for new and existing ships.

b) Table A.2 covers the materials contained in ship parts, equipment and systems which shall be listed in the IHM Part I for new ships and new installations. For existing ships, listing of these materials is voluntary.

c) Table B.1 includes items which are potentially hazardous to the environment or human health and shall be listed in IHM Parts II and III during preparations for recycling.

d) Table B.2 comprises goods which are not specifically designed for shipboard applications and can also be widely found in normal household applications. Those items shall be listed in the IHM Part III during preparations for recycling.

e) Similar materials or items that contain hazardous materials that potentially exceed the threshold value can be listed together (not individually) on the IHM with their general location and approximate amount specified there.

Table 1 shows the categorization and applicability of the IHM listed in Table A.1, A.2, B.1 and B.2 and how it corresponds to the items listed in Tables A.1, A.2, B.1 and B.2.

Tables A.1, A.2, B.1 and B.2 correspond to Tables A, B, C and D in MEPC.379(80).

NOTE For additional requirements of EU regulation, refer to Annex C.

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Table 1 — Categorization and applicability of IHM

Scope of the IHM	Shipbuilding and operating	Preparation prior to recycling	
	Part I Structure and equipment	**Part II[ab] Operative wastes**	**Part III[ab] Stores**
Table A.1 materials Mandatory for new ships and new installations, and existing ships	X		
Table A.2 materials Mandatory for new ships and new installations; voluntary for existing ships	X		
Table B.1[b] Potentially hazardous items		X	X
Table B.2 Regular consumer goods potentially containing hazardous materials	List of exclusions		X

[a] Applicable only directly prior to recycling/last voyage.

[b] Operational relevant goods like lubricating oil, anti-seize compounds or grease, which are applied to keep normal performance of gear, equipment, and machinery present in small amounts, do not fall under the scope of IHM Part III.

4.2.3 Exemptions—Materials not required to be listed in Part I of the inventory

Materials listed in Table A.2 that are inherent in solid metals or metal alloys, such as steels, aluminium, brasses, bronzes, plating and solders, provided they are used in general construction, such as hull, superstructure, pipes or housings for equipment and machinery, are not required to be listed in the inventory.

Although electrical and electronic equipment is required to be listed in the inventory, the amount of hazardous materials potentially contained in printed wiring boards (printed circuit boards) installed in the equipment is not required to be reported in the inventory.

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4.2.4 Standard format of the inventory

The standard format for the IHM is provided in Annex D. Examples of how to complete the inventory are provided for guidance purposes only.

4.2.5 Revision to threshold values

Revised threshold values in Tables A.1 and A.2 should be used for IHMs developed or updated after the adoption of the revised values and it is possible that they are not applied to IHMs which are existing and under development. However, when entries describing materials are added to the IHM, such as during maintenance, the revised threshold values should be applied and recorded therein.

4.2.6 Preparation of the IHM

The preparation of IHMs for new and existing ships differs.

For existing ships:

a) IHM Part I shall be prepared under the responsibility of the shipowner at an early stage and at the latest, directly prior to recycling of the respective vessel;

b) the materials contained in Table A.1 shall be listed in the IHM Part I for existing ships;

c) the materials contained in Table A.2 should be listed as far as practicable;

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d) the materials contained in Table A.2 shall be listed during IHM maintenance, after the initial preparation of the inventory.

For new ships:

e) IHM Part I shall be prepared at the design and construction stage after getting suppliers' documents (including but not limited to MDs and SDoCs) by the shipyard and be delivered together with the ship, and

f) the materials contained in Tables A.1 and A.2 shall be listed in the IHM for new ships and new installations. The maintenance of IHM Part I is required throughout the ship operational phase, especially during repair and conversions, when any of the IHM information becomes obsolete or inaccurate. Parts II and III shall be prepared prior to recycling.

4.3 Planning

4.3.1 IHM Part I for new ships

4.3.1.1 General

The shipyard is responsible for preparing the IHM for new ships. The shipowner shall include this requirement in the ship building contract with the shipyard by making references to the applicable regulations and conventions.

Part I of the inventory shall be developed at the design and construction stage by the shipyard. For relevant items and orders, the shipyard shall request information from suppliers on the products' hazardous materials content by the material declaration (MD) form (see Annex E) and the supplier's declaration of conformity (SDoC) form (see Annex F). In order to provide this information to shipyards, suppliers shall obtain information from their upstream suppliers and provide the requested information to downstream suppliers or customers.

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Suppliers to the shipbuilding industry shall make a statement in the form of the MD and SDoC for their relevant supplied products and declare whether the materials listed in Tables A.1 and A.2 are present in these products.

If the concentration of hazardous material in a homogeneous material is above its specific threshold levels provided in MD for the materials listed in Table A.2, the quantity of the entire homogeneous material containing hazardous material shall be listed in the MD. Installation of any substance listed in Table A.1 above the threshold is not permitted. For developing IHM Part I, the shipyard shall also specify the location and quantity of the product, equipment, system, or machinery onboard. In case of a coating, it shall be specified where this has been applied.

The development of Part I of the inventory is limited to the fixed equipment only (including those batteries containing lead acid or other hazardous materials that are fixed in place). For loosely fitted equipment (including those loosely fitted batteries, such as consumer batteries and batteries in stores), the continuity of information is achieved by maintaining Part III of the inventory completed by the shipowner in the format specified in Annex D, prior to the application for final survey.

As far as possible, all forms required for preparing IHM should be prepared, transmitted and processed electronically. Hardcopies should be avoided as far as possible due to the high number of documents to be handled.

4.3.1.2 Documentation of otherwise required information

Volumes of pipes and machinery containing hazardous materials listed in Table B.1 shall be documented separately to enable the shipowner to prepare Part II or Part III of the IHM prior to recycling.

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4.3.1.3 Requirements for shipyards

The shipyard shall establish, implement and maintain procedures for the preparation of IHM Part I, including:

a) identification of its relevant suppliers of coating systems, components, equipment and structural elements and materials that are used during the construction of the ship,

b) requesting statements from these suppliers on whether the hazardous materials in Tables A.1 and A.2 are contained in the material declaration (MD),

c) ensuring that its suppliers provide complete and up-to-date information and, in case the threshold levels have been reached, providing additional information on the presence of the hazardous material like quantity (mass/volume) and its location within the supplied goods (applicable for components) in the required form (MD),

d) ensuring that measures implemented by the suppliers for assuring accurate and up-to-date MDs are described in the SDoC and other required entries are correct,

e) ensuring that references to the MDs and SDoCs of the suppliers are correct,

f) ensuring that the related forms are unchangeable and provided in electronic format (e.g. PDF files) from suppliers (Annex E and Annex F provide example forms); entries shall be made in original electronic form (no scans),

g) ensuring that, in cases where a supplier does not provide an appropriate SDoC electronically, a signed hardcopy of the SDoC, or a scan thereof, is made available and archived by the shipyard,

h) ensuring that when the concentration of homogenous materials in products exceeds the related threshold levels listed in Table A.1, products shall not be installed on a ship. If one or more materials listed in Table A.2 are found to be present in concentrations above the specified threshold value according to the MD, the products should be listed in the inventory,

i) ensuring that only properly filled in MDs and related SDoCs are accepted,

j) directly utilizing the information from suppliers and considering calculations to determine the amount of materials used on board (e.g. for paints),

k) ensuring effective and accurate preparation of the IHM, which shall be certified by the flag state with which the ship is registered, or by a recognized organization (e.g. classification society) which is authorized by the flag state.

NOTE Before 26 June 2025, for any missing MD or SDoC, the presence of hazardous materials in the components and materials can also be investigated by applying the methods applicable for existing ships.

The documentation regarding the presence or absence of hazardous materials shall be prepared in the form of an MD, which shall be accompanied by an SDoC. Responsibility of the provided information lies with the suppliers who prepare the MD and SDoC.

The structure for gaining information via relevant documents by shipyards from the suppliers and from their supply chain (upstream suppliers) is shown in Figure 1. The purpose of a standardized approach throughout supply chains is to ensure the reliability of the HazMat information by traceability. By using uniform forms within supply chains, electronic data processing becomes possible. For example, by automatic combination of MDs prepared by upstream suppliers (sub-MDs) into Tier I MDs (main-MDs), less re-typing and conversion of information and forms is required, and information is handled more effectively.

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