

Preparation of the Inventory for New Building Ships

December 2009

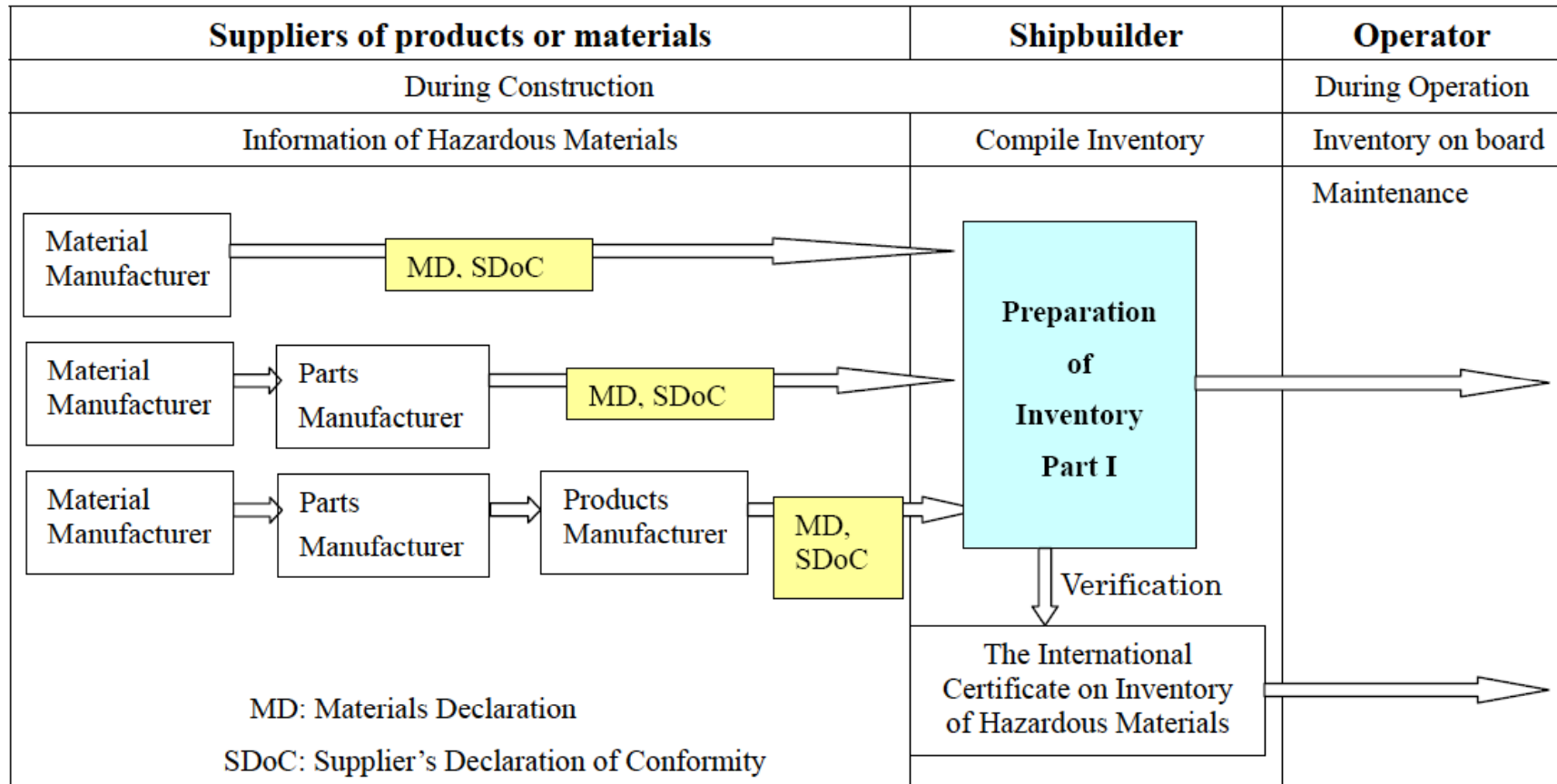
The Shipbuilders' Association of Japan

Preparation of the Inventory for New Building Ships

1. Procedure of Inventory Preparation
2. Trial Results of Inventory Preparation
3. Inventory Preparation from now on

1. Procedure of Inventory Preparation

- (1) Collection of Hazardous Materials Information
- (2) Check of Hazardous Materials Information
- (3) Preparation of the Inventory Part I
- (4) Submission of the Inventory Part I for the Certification



(1) Collection of Hazardous Materials Information

- 1) Shipbuilders should request products' suppliers to submit **Materials Declaration (MD)** and **Supplier's Declaration of Conformity (SDoC)** for the products at the time of purchase.
- 2) MD and SDoC should be submitted at the time of submitting approval drawings or delivery of products.

Shipbuilders prepare the Inventory Part I based on **Materials Declaration (MD)** .

The most important point is that **Materials Declaration (MD)** is correctly described using unified format.

(2) Check of Hazardous Materials Information

Because of long period of construction after purchase, following items should be checked at the time of receiving the Materials Declaration (MD) and Supplier's Declaration of Conformity (SDoC).

- SDoC ID No. described in Materials Declaration (MD) coincides with the ID No. of Supplier's Declaration of Conformity (SDoC).
- To check the hazardous materials on the Materials Declaration (MD)
The products containing table A materials over the threshold level are prohibited. (Exception: Hydrochlorofluorocarbons (HCFCs))
- All information available to calculate the amount of hazardous materials.

Materials Declaration form (MD)

Product name	Product number	Delivered unit		Product information
		Amount	Unit	
		(1)	(A)	

The materials information shows the amount of hazardous materials contained in

1	Unit (B)
---	----------

Hazardous materials	Present above threshold level: Yes/No	Mass	Unit	Where used
		(2)	(C)	

(2) Check of Hazardous Materials Information

Materials Declaration	
<Date of Declaration>	
Date	
<MD ID Number>	
MD-ID-No.	
<Other Information (e.g. shipbuilder, hull NO.)>	
Remark 1	
Remark 2	
Remark 3	
<Supplier (Respondent) Information>	
Company Name	
Division Name	
Address	
Contact Person	
Telephone Number	
FAX Number	
E-mail Address	
SDoC ID No.:	XXXXXXX

Coincident

Supplier's Declaration of Conformity
1) SDoC ID No. XXXXXXXX

(3) Preparation of the Inventory Part I

1) Classification of Inventory

To classify the products containing the materials listed in table A and B in three categories.

Category

Products

1.1 Paints and Coating Systems

Paint (used for Shipbuilding)

1.2 Equipment and Machinery

Machinery, equipment, parts, pipes, electric cables, etc.

1.3 Structure and Hull

Construction materials, joiner works such as interior walls, floors, etc.

2) Relation between the contents of Inventory and Materials Declaration (MD) information

3) Description of equipment, etc. – one equipment per line.

4) To calculate the amount of hazardous materials.

5) The location of hazardous materials on board to be described with the name of location used in General Arrangement, Machinery Arrangement, Cabin Plans, etc.

(3) Preparation of the Inventory Part I

Materials Declaration Form

(A),(B) Copy

<Product Information>

Product name	Product number	Delivered unit		Product Information
		Amount	Unit	
(A-1)	(A-1)	(C)	(C)	(B)

<Material Information>

This materials information shows the amount of hazardous materials contained in

1	Unit (C)
---	-------------

Table	Material name	Threshold level	Present above threshold level	If yes, material mass		If yes, information on where it is used
			Yes/No	Mass	Unit	
-----	(A-2)	-----	(Yes)	(C)	(C)	(A-3)

(D) Paint name normally used

(E) Location on the ship

(C) Calculate quantity

Inventory

Inventory	No.	Application / Type	Name	Location	Materials (Name)	Parts of Use	Approx. Quantity	Remarks
1.1		(D)						
1.2	(F)		(A-1)	(E)	(A-2)	(A-3)	(C)	(B)
1.3								

(F) Number

(4) Submission of the Inventory Part I for the Certification

Shipbuilders prepare the Inventory Part I based on Materials Declaration (MD) from products' suppliers, and submit it to the flag administration or Recognized Organizations (RO) to get certification. Shipbuilders provide on board with "the International Certificate on Inventory of Hazardous Materials" together with the Inventory Part I.

Drawings and documents requested for verifying the Inventory;

- Materials Declaration (MD)
- Supplier's Declaration of Conformity (SDoC)
- Reference drawings (General Arrangement, Machinery Arrangement, etc.)
- Other drawings or documents requested by the flag administration or Recognized Organizations (RO)

2. Trial Results of Inventory Preparation

The Shipbuilders' Association of Japan (SAJ) conducted trials for Inventory preparation two times according to the drafts of the Convention and Guideline.

First time: from Oct. 2007 to Feb. 2008

Inventory of 3 vessels to find problems, etc. on the guidelines

Second time: from Jan. 2009 to Dec.2009 (currently ongoing)

Inventory of 10 vessels prepared by using the PrimeShip-INVENTORY (NK software)

<Trial results of Inventory Preparation>

Rate of Materials declaration (MD) obtained

First time: 75 to 85% Second time: 80 to 99%

Problem: Materials declaration (MD) and Supplier's Declaration of Conformity (SDoC) were found not correctly described.

Following points are important check points of MD and SDoC from the trial results.

(1) Preparation of MD and SDoC

Shipbuilders should obtain the **Materials Declaration (MD)** and **Supplier's Declaration of Conformity (SDoC)** from products' suppliers.

Supplier: A company such as manufacturer, trader or agency who provides products and has responsibility for the products

Materials Declaration (MD):

Document identifying whether the material contained in table A materials (materials prohibited or restricted) and table B materials (specific chemical substance) designated in accordance with the Convention and Guidelines

Supplier's Declaration of Conformity (SDoC):

The document assuring that the product and its related MD conforms to the law and is suitable for the management and control of the information on chemical substances contained, and who is responsible for the product and MD

MD should be prepared for all the products regardless of existence of materials listed in table A and table B.

(2) Description in Materials Declaration (MD)

One MD should be prepared for one product in principle.

Attention to be paid:

- To describe the SDoC ID No.
- To specify the content of the hazardous materials (HM) in case of exceeding the threshold level.
- To be able to calculate the total amount of the HM.
- To enter “No” for materials not exceeding the threshold level.

Threshold level means the concentration value in homogeneous materials (mg/kg).

Content of HM to be specified either by designed, calculated, theoretical, controlled or measured figures.

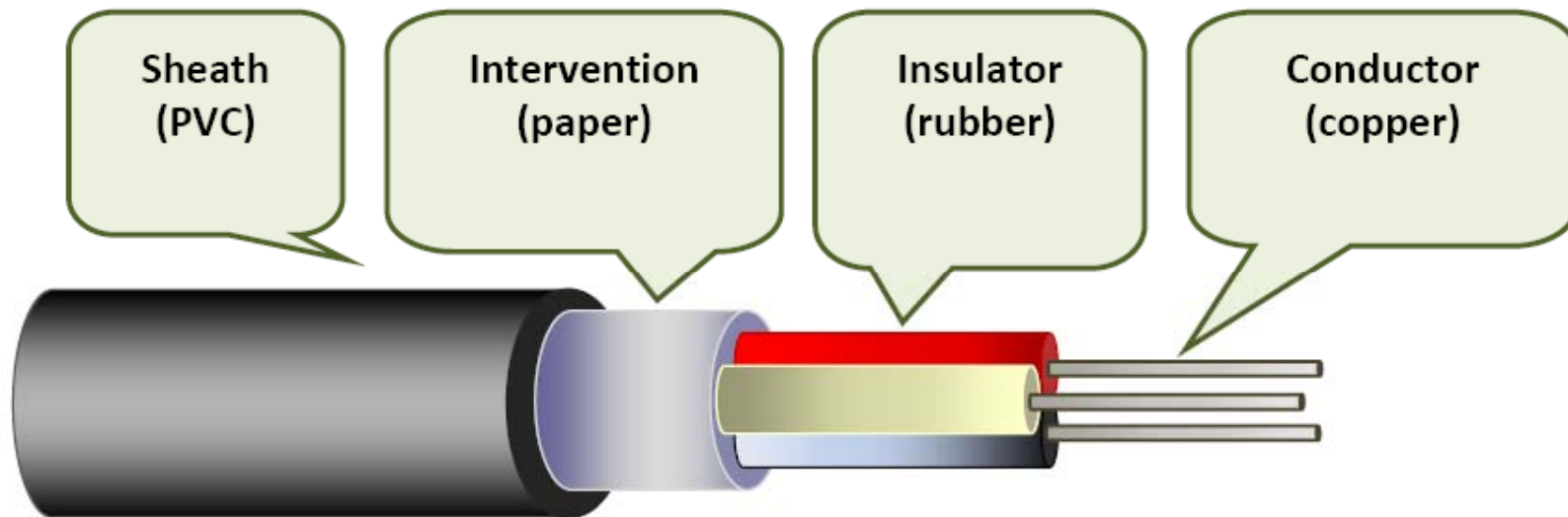
- In case the same material is contained in many parts or portions, such names of the parts or portions to be described.

In case the parts of product contain the HM above the threshold level and are arranged on different location of the vessel, the MD of the parts should be prepared separately.

(2) Description in Materials Declaration (MD)

Homogeneous materials

Electric cable: Sheath, intervention, insulator and conductor are all individual homogeneous materials.



Plating: Base metal and plating layer to be treated as not mechanically separable.

(Base metal and plating layer consist of one homogeneous material.)

Paint: Paint itself consists of one homogeneous material.

(3) Object of MD Investigation

Materials Declarations (MDs) should be collected for all the products that consist of hull, machinery, equipment and material.

MD investigation not to be required for:

- Materials listed in table B that are inherent in solid metals or metal alloys, provided they are used in general construction, such as hull, superstructure, pipes, or equipment.

For example:

Hull construction, superstructure and other structure such as rudder plate

Normally used steel or alloy pipes such as steel, AlBr, copper and stainless steel

Large fittings such as masts, tanks, etc.

However, MD should be obtained in case the above steel plates and pipes being coated or plated.

- Products listed in table C and table D

(3) Object of MD Investigation

Relation between Table A, B, C and D

	Products (hull, machinery, equipment, material) used for ships	Products loaded on ships
Product	<p style="text-align: center;">MD Investigation (Investigate contained materials listed in Table A and B)</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%; color: blue;"> <p>MD Investigation not to be required</p> <p>Materials listed in Table B that are inherent in solid metals or metal alloys, provided they are used in general construction, such as hull, superstructure, pipes, or equipment.</p> </div>	<p style="text-align: center;">Table D Regular consumable goods potentially containing Hazardous Materials</p> <p style="text-align: center;">Table C Potentially Hazardous Items</p>
Material	<p>Table A Controls of Hazardous Materials (Appendix 1 of the Annex to the Convention)</p> <p>Table B Min. List of Hazardous Materials (Appendix 2 of the Annex to the Convention)</p>	

(3) Object of MD Investigation

Table C: Potentially Hazardous Items

The products listed in table C are those which are loaded on board and the amount changes during the ship operation.

To be listed in the Inventory Part II or Part III before the ship recycling as waste generating during operation.

Table D: Regular consumable goods potentially containing Hazardous Materials

Remaining products before the ship recycling should be listed in the Inventory Part III.

Example for items requiring MD:

- Interior fluorescent lamp	Socket	MD required
	Lamp	MD not required
- Refrigerator	Large refrigerator on the market	MD not required
	Refrigerator composed of part of hull construction	MD required

MD should be collected in general, in case it is not clear whether MD is required or not.

(4) Description of Supplier's Declaration of Conformity (SDoC)

It is preferable to have ID No. of SDoC that can detect the manufacturer and product.

In case of electronic data, it is better that the file name shows the manufacturer and product.

Shipbuilder will use this file name to carry out the work.

All the products can be listed where the SDoC covers.

In the following format of SDoC, the document name for quality management to be described.

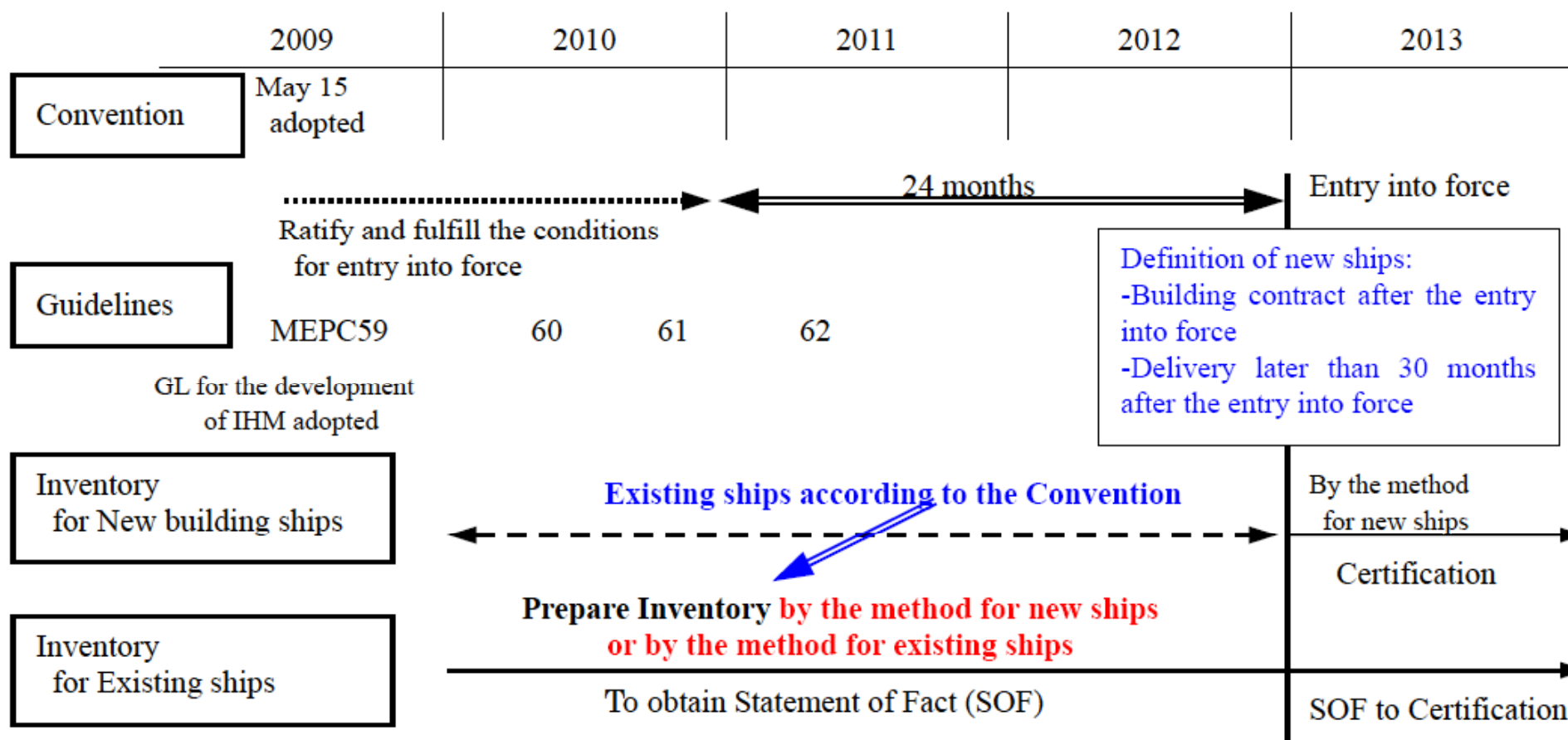
In case of having ISO9001, ISO14001 certification, etc., the name of the corresponding document to be described.

Supplier's Declaration of Conformity (SDoC)		
4)The object(s) of the declaration described above in conformity with the following documents:		
Document no.:	Title:	Edition/date of issue
5) _____	_____	_____

3. Inventory Preparation from now on

At the earliest case, the Convention may enter into force in 2012.

New building ships before entry into force will be treated as existing ships according to the Convention.



Proposal from Japan

Japan had some trials for development of inventory of hazardous materials for newly-built ships.



A number of problems were found!!!



To avoid potential confusion after “the Convention” entry into force, a discussion among experts is needed to develop a manual.



Why don't we have a voluntary discussion?

Japan is ready for coordinating the discussion.



**Those who are interested, please e-mail to
tanaka-nobu@jstra.jp**