



Inventory of Hazardous Materials for fleet in service

Know what's inside your ship

Facing the challenge

In near future, the “Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009”, adopted by the International Maritime Organisation (IMO), is expected to enter into force. The aim is to minimise, in the most effective, efficient and sustainable way, the environmental and occupational health risks of ship recycling.

A fundamental requirement of the Convention is the documentation of hazardous materials on the vessel. New and existing ships of 500 GT and above will have to carry an Inventory of Hazardous Materials (IHM) and the related International Certificate of Inventory of Hazardous Materials (ICIHM) onboard. Approx. 50,000 existing ships have to obtain the ICIHM within five years, newbuildings from the beginning of their operational life.

To ensure a smooth certification Germanischer Lloyd (GL) offers expert solutions for the IHM. Our experience allows you to be among the first companies present with effective processes resulting in correct IHMs. Right from the start of shipbuilding, GL is your qualified partner to handle and to meet the requirements of the Hong Kong Convention.

Your benefits of early compliance

- Being in line with future legal regulations
- Realise a higher resale value
- High standard as provided by GL
- Maintain your image as a green company

- Avoid the upcoming rush for compliance
- Prepare for earlier regional implementation (e.g. EU)

IHM for fleet in service

The inventory quantifies and locates hazardous materials onboard ships which are known to represent a potential hazard to people and the environment. For assuring safe and environmentally friendly handling of these materials detailed documentation of those materials in ship's structure and equipment is essential.

For existing ships, owners have to involve HazMat experts for preparation of a sampling check plan prior to developing the IHM Part I. GL offers an experienced professional service ensuring a pragmatic and effective IHM preparation and certification.

The preparation process consists of the following basic six steps, ensuring a unified application and comparable results:

- Step 1: Collection of necessary information, Utilization of Indicative List
- Step 2: Assessment of Collected Information
- Step 3: Preparation of Visual / Sampling Check Plan, Pre-Approval / amendment of Visual / Sampling Check Plan by GL
- Step 4: Onboard Visual / Sampling Check
- Step 5: Preparation of IHM Part I and related Documentation, Issuance of Certificate (Statement of Compliance)

Content of IHM

The IHM consists of three parts:

- Part I: Hazardous materials contained in the ship's structure and equipment
- Part II: Operationally generated wastes and
- Part III: Stores

The parts are applicable to different stages in a ship's life cycle, as shown in the table below:

Scope of the inventory of hazardous materials	Shipbuilding and operating	Preparation prior to recycling	
	Part I Structure and Equipment	Part II Operative Wastes	Part III Stores
Table A Materials Mandatory for new / existing ships and new installations	✓		
Table B Materials Mandatory for new ships / installations; voluntary for existing ships	✓		
Table C Materials Potentially hazardous items		✓	✓
Table D Materials Regular consumer goods potentially containing hazardous materials	List of exclusions		✓

Part I of the IHM is to be prepared by the shipyard during the shipbuilding phase or, in case of existing ships, within five years after entry into force of the Hong Kong Convention under the responsibility of the shipowner. Part I focuses on the hazardous materials contained in hull and equipment.

Part II and Part III of the IHM are to be prepared prior to or during the final voyage of the ship under the responsibility of the shipowner.

Professional assistance is foreseen by the Convention and is the key to reducing the risk that difficulties will be encountered when a ship is prepared for recycling. GL methods combine pragmatism and professional assistance. Based on expertise and knowledge GL's IHM services cover the entire IHM life cycle process to assure a smooth and effective fulfilment of the IMO requirements and related certification.

IHM software solutions by GL

GL offers a smart software solution for new and existing ships to support all IHM-related aspects. The GL Inventory software Green Server and IHM Offline Client for Hazmat Experts and Shipyards enables the integrated management of the enormous amount of information needed, in compliance with the IMO requirements. Improved readability and data quality will ensure

efficient updating and maintenance of the IHM during vessels' operational phase:

- Recording results of document analysis
- Listing of ship-specific material assumptions
- Structuring of ship
- Definition of location, system, etc.
- Preparation of Visual / Sampling Check Plan
- Documentation of sample and analysis results
- Preparation of IHM Part I
- Smooth certification process
- Access to all related data and management thereof
- Maintenance of IHM throughout the ship's life
- Utilisation of data for ship recycling preparations

HazMat Expert seminar

To be at the forefront of future requirements GL's training institute, the GL Academy, offers 4-day seminars in order to train HazMat experts. Successful participation will be confirmed by a "GL-Approved HazMat Expert" certificate.

This seminar covers all relevant aspects and provides practical guidance for fulfilling all tasks related to the preparation of the IHM, including:

- Methods for effecting sighting of documents
- Structuring ships in functional units and systems
- Preparation of Visual Sampling and Check Plan
- HazMat identification methods
- Taking of samples and personal protective equipment
- Reporting and preparation of related documentation
- Preparation of IHM fulfilling all requirements

Seminar: Management of Hazards on board ships

Shipping Companies, Shipyards, Suppliers and Authorities are facing increasing challenges in management of hazardous materials such as Asbestos or Ozone depleting substances on board ships. This course provides an introduction and guidance to achieve certified expertise about management of hazardous materials on board ships.

More seminar information at www.gl-group.com/glacademy

Supervision of ship recycling

As an alternative to the certification GL offers shipowners the supervision of the entire recycling procedure and compliance with the Hong Kong Convention.

One-stop shopping at GL

Ship Operational Software
GL ShipManager, GL HullManager, GL FleetAnalyzer, GL SeaScout, GL Rules Pilot

Training
HazMat Expert seminar, IMO Convention on Ship Recycling, Ship Recycling for Ship Owners, Ship recycling for Ship Yards and Suppliers



Consulting
Material Declaration Consulting, Environmental Consulting

Certification
IMO, ISO, Emission trading amongst others



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