ClassNK Solution on Ship Recycling Convention

A World Leader in Ship Classification
The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009, the “Ship Recycling Convention” was adopted in May 2009. Once the convention enters into force, all ships greater than 500GT will be required to maintain an Inventory of Hazardous Materials [Inventory (IHM)].

The development of the Inventory (IHM) will be a significant task for shipowners of both existing ships and newbuildings. ClassNK is working to ensure that all concerned parties including shipowners, shipbuilders, and suppliers are able to implement the convention requirements smoothly and efficiently.

ClassNK provides shipowners with total care solutions for Ship Recycling Convention in every aspect of a ship’s life.

Trust ClassNK for Ship Recycling Convention

ClassNK offers the following services for Ship Recycling Convention...

**Inventory (IHM) Development Assistance**

- For existing ships: introducing and providing Experts to assist with Inventory (IHM) development
- For new ships: Developing and updating software for Inventory (IHM) development in order to reduce workloads of shipbuilders and suppliers.

**Statements of Facts for early implementation**

Prior to the convention’s entry into force, ClassNK can issue a Statement of Fact (SOF) for the Inventory (IHM) which can be rewritten into a conventional certificate once the convention enters into force.
**Q: What is an Inventory (IHM)?**
A: An Inventory (IHM) is a list of Hazardous Materials, waste, and stores, identifying their locations and approximate quantities on board the ship. As you can see on the following table, Part 1 of the Inventory (IHM) is to be developed at the delivery of the ship, and Part 2 & 3 are to be completed immediately prior to recycling. Meanwhile, for those ships whose building contract are not placed before the convention enters force (defined as “Existing ships”), Part 1 of the Inventory (IHM) has to be developed within 5 years the convention enters into force.

Materials/items to be listed in the Inventory (IHM) are set forth as follows. Materials are classified under “Table A”, “Table B”, “Table C” or “Table D” according to their properties.

<table>
<thead>
<tr>
<th>Materials/Items to be listed</th>
<th>Part 1</th>
<th>Part 2</th>
<th>Part 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazardous Materials contained in ship structure or equipment</td>
<td>Operationally generated wastes</td>
<td>Stores</td>
<td></td>
</tr>
<tr>
<td>To be developed at</td>
<td>Delivery</td>
<td>Just before the Recycling</td>
<td></td>
</tr>
<tr>
<td>*Existing ships shall comply not later than 5 years after entry in force</td>
<td>Table A: Prohibited/Restricted Materials (Asbestos, PCB, Ozone Depleting Substances, Organotin compounds)</td>
<td>Table C: Potentially hazardous items</td>
<td>Table D: Regular consumable goods potentially containing Hazardous Materials</td>
</tr>
</tbody>
</table>

In accordance with the convention, the ship recycling will be executed in line with the inventory, with considerations towards the safety/health of laborers and prevention of environmental pollution.

**Q: What are the requirements for the convention to enter into force?**
A: The Convention will enter into force 24 months after;

1. Ratification by not less than 15 States
2. The combined merchant fleets of the ratifying States constitute not less than 40% of the gross tonnage of the world’s merchant fleet
3. The combined maximum annual ship recycling volume of the ratifying States during the preceding 10 years constitutes not less than 3% of the gross tonnage of the States.

Due to increasing environmental awareness, many states are highly motivated to ratify the convention. An early entry into force is expected.
The Ship Recycling Convention applies to existing ships as well as a newly constructed ships. For existing ships, Part 1 of the Inventory (IHM) is to be prepared by a third party “Expert”.

* For existing ship, complete clarification of Table A materials (Asbestos, PCB, Ozone depleting substances, Organotin compounds) is required. Meanwhile, the locations and quantities of Table B materials (Cadmium, Hexavalent Chromium, Lead, Mercury etc.) need to be clarified as much as practicable.

In addition to introducing shipowners to third party Experts, ClassNK is developing its own worldwide network of Experts capable of preparing Part 1 of the Inventory (IHM). ClassNK is also available to answer shipowner questions about Inventory (IHM) development for existing ships.

* ClassNK is now preparing for providing the Expert service in near future.

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**What ClassNK Offers**

**Expert Introduction**

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* ClassNK is now preparing for providing the Expert service in near future.

**Issuance of Statement of Fact (SOF)**

Class will issue a Statement of Fact (SOF) for Part 1 of the Inventory (IHM) developed before the convention enters into force, subject to satisfactory completion of our examination. After the convention enters into force, ClassNK will rewrite the SOF as a conventional certificate.

Once the convention comes into force, demand for experts is expected to be very high. We recommend shipowners begin the process as soon as practical.
Development process for Part 1 of the Inventory (IHM) by Expert

Shipowner

① Application for the Inventory development

Expert

② Preparation of visual/sampling check plan by collection and analysis of information of the ship
③ Onboard Inspection (at Drydocking)
④ Preparation of Part 1 of the Inventory

ClassNK

⑤ Approval of Part 1 of the Inventory Issuance of "INTERNATIONAL CERTIFICATE ON INVENTORY OF HAZARDOUS MATERIALS"

* Before the convention comes into force, Statement of Fact (SOF) is issued.

Cost for the Expert consists of manpower for the following:

- Collection/document analysis of the ship’s information, preparation of visual/sampling check plan, onboard inspection, and preparation of the Inventory (IHM) format
- Additional expenses for sampling analysis, etc

Costs depend on type, age, ship size, and availability of related resources. Our partner Expert, JSTRA (Japan Ship Technology Research Association), gives a reference price of USD30,000-50,000. Preparing enough documents in advance may reduce the required manpower. Please also be aware that the the ClassNK approval fee is charged separately from the Expert’s analysis and work.

Time

A minimum of three months or more is expected to be required to complete the inventory. After the convention enters into force, it might take longer due to limited availability of Experts.
Part 1 of the Inventory (IHM) for new ships is to be developed at delivery by the following process.

**Development process of Part 1 of Inventory (IHM) for shipbuilders**

1. Collection of Hazardous Material information
   The shipbuilder collects Material Declaration (MD) and Supplier’s Declaration of Conformity (SDoC) from suppliers for all procured products. Material Declaration show whether the Hazardous Materials above threshold level set forth in the convention are contained in the product. SDoC confirms MD and identifies the supplier’s responsibility.

2. Screening the collected information
   The shipbuilder screens the products containing Hazardous Materials by checking submitted MD.

3. Preparation of the Inventory (IHM)
   For the screened products, the shipbuilder identifies their locations and approximate quantities of Hazardous Materials and fill in the information on the Inventory (IHM) format.

**What ClassNK Offers**

**Inventory (IHM) Development Software “PrimeShip-INVENTORY”**

Collecting the huge number of Material Declaration (MD) from suppliers will be a huge additional burden for shipbuilders. ClassNK has developed the software to reduce the workload & cost associated with this process by allowing shipbuilders and suppliers to exchange MD data electronically; PrimeShip-INVENTORY.

In order to ensure that shipbuilders and suppliers will be able to use Inventory (IHM) smoothly, ClassNK is distributing PrimeShip-INVENTORY free of charge and is providing technical assistance to concerned parties. Please also feel free to contact ClassNK about any questions or concerns you might have related to Inventory (IHM) development of new ships.

**Issuance of Statement of Fact (SOF)**

Class will issue Statement of Fact (SOF) for Part 1 of the Inventory (IHM) before the convention enters into force, subject to satisfactory completion of our examination. After the convention enters into force, ClassNK will rewrite the SOF into a conventional certificate.

For newly constructed ships built before the convention enters into force, the MD/SDoC method as well as Expert method are applicable. By preparing the Inventory (IHM) using MD/SDoC method, shipowners can save time and cost for the Expert after the ship is delivered.
The Inventory (IHM) has to be maintained throughout the operational life of the ship.

**Updating the Inventory (IHM)**

For changes or conversions to the ship structure or equipment involving Hazardous Materials, the Inventory (IHM) should be updated based on the related Material Declaration (MD) and Supplier’s Declaration of Conformity (SDoC).

**Periodical Survey**

Part 1 of the Inventory (IHM) shall be subject to renewal surveys at intervals, not exceeding five years.

**Completion of Inventory (IHM) at Recycling**

At the recycling stage, Part 2 (Wastes) & Part 3 (Stores) of the Inventory (IHM) shall be incorporated to Part 1 and provided to the ship recycling facility.

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**What ClassNK Offers**

**Technical Services for Inventory (IHM) Maintenance**

As the one of our consulting services, ClassNK offers technical services related to Inventory (IHM) maintenance during the operational life of the vessel and for inventory (IHM) completion.
Contact:
NIPPON KAIJI KYOKAI
Ship Recycling Convention Team
4-7 Kioi-cho, Chiyoda-ku, Tokyo 102-8567, Japan
Telephone: 03-5226-2020 Fax: 03-5226-2057 Email: srpt@classnk.or.jp

For further information, please visit our website (http://www.classnk.or.jp): Information Services > Ship Recycling Convention.