

RISK ALERT



Ship Recycling-Inventory of Hazardous Material



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The deadline for compliance with the EU regulation on Ship Recycling ([EU SRR](#)) for existing vessels is the 31st of December 2020. This regulation No. 1257/2013 came in to force on the 30 Dec 2013 and is applicable to vessels 500GT or over where the vessel is registered under an EU member flag administration and to those non-EU flagged vessels 500GT or over calling at a port or anchorage of a Member country after 31st Dec 2013.

Vessels built after 31 Dec 2018 are already required to comply with the SRR at the time of delivery and must carry the necessary documentation from the time of delivery.

For compliance with EU SRR a vessel must be issued with either of the below listed certificates and supplemented with an Inventory of Hazardous Material (IHM).

- a certificate of inventory (IC);
- a ready for recycling certificate and approved ship recycling plan (RfRC) or;
- a statement of compliance (SoC) for non-EU vessels.

The certificate and Statement of compliance is to be issued by Flag administration or by the Recognised Organisation (RO) that the Flag have authorised.

The EU SRR requires that every vessel falling under the regulation must have an inventory of hazardous materials (IHM), where material that is listed in the Annex I and II to the regulation is found onboard the ships structure or equipment.

The hazardous material listed in the Annex to the EU SRR, if present on board, is to be identified and included in the inventory. Relevant provisions of the [Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009 \(HKC\)](#) and related [IMO guidelines](#) are to be taken into consideration when compiling the IHM.

The main aim of the IHM required under the EU SRR, and adopted by IMO under the HKC, is to identify all hazardous materials on board a ship that goes for its end of life recycling as a means to provide information on materials that could, without adequate controls and responsible waste recycling, cause harm to personnel in a recycling facility or damage to the environment.

Inventory and Control of Hazardous Material

For the above reasons it is important that the IHM produced is the most accurate representation of the materials contained on the vessel.

There are essentially three parts to the IHM:

Part I is the list of hazardous materials from construction and installations as identified in the Annex I and Annex II of the Regulations.

Part II is a list of hazardous wastes generated during the normal operation of the vessel

And Part III is the list of hazardous material in the ship stores.

Part I is required for any vessel to which the regulation is applicable and must be maintained throughout the operational life of the vessel.

Part II and Part III are required when the vessel is fixed for end of life recycling.

Annex II materials, which includes Annex I materials, are to be recorded for all new vessels.

For new builds, the compliance should be considered as integral to the design and construction of the vessel and be specified in the shipyard contract.

For existing vessels, the time required for compilation of the inventory and compliance with the EU SRR is dependent on the extent to which the relevant documentation is available and also dependent on any voluntary compliance documents that the vessel may already have previously been issued with, such as the IHM issued under the HKC.

For this reason, the steps involved in the development and issuing of a compliance certificate or document will differ for a new and existing vessel.:

1. Collation of documents and information- This could include the following as applicable and is not to be considered as exhaustive:

- Material Declaration (MD), Supplier's Declaration of Conformity (SDoC);
- Asbestos free Certificate or Declaration (controlled as per SOLAS Chap II-1 3-5 and MSC.1/Circ. 1379)
- [International Convention on the Control of Harmful Anti-Fouling Systems on Ships \(AFS Convention\)](#)- Certificate or Statement of compliance
- Record of equipment containing Ozone depleting substances, and the list of Ozone depleting substances required to be maintained as per MARPOL Annex VI Reg. 12 -Supplement to the International Air Pollution Prevention Certificate
- Polychlorinated biphenyl (PCB) free certificate issued under the Stockholm Convention
- Details on where the above materials may be found onboard the vessel together with relevant supporting drawings and shipyard documentation.

2. On board visual and sampling check is required to be carried out based on an inspection plan developed from the information collated for the vessel in step1. The extent of inspection is likely to also depend on the availability of the relevant documentation identified in Step 1.

These samples are required for lab analysis and quantification of the material present on the ship and to verify if the values are above the threshold limits as defined in the HKC as referred to in the EU SRR.

It is recommended that a HAZMAT specialist is consulted who should be able to advise on the likely places that the hazardous material is likely to be found on a ship depending on the build year (before prohibitions were imposed etc.) and properties of the hazardous materials that were in use on ships before the prohibition came into effect, or those that are currently controlled. For example asbestos materials that could have been used in rotary compressors, vacuum pumps, high temperature insulations, lagging or piping joints, and polyurethane foam blown with CFCs used for cryogenic insulation etc.

The material analysis must be carried out by an independent laboratory accredited as per international standards such as ISO 17025 or equivalent.

3. The IHM should be produced from the documents collected and the results of the vessel's visual inspection and sample analysis. The IHM shall be "prepared and verified taking into account guidelines, including any threshold values and exemptions contained in those guidelines, developed by the Organization" (IMO). It is essential that the inventory

produced from this process is accurate, ship specific and provides the evidence that the ship complies with the imposed prohibitions or restrictions on installation and use of hazardous materials. As recommended in the [MEPC 269 \(68\)](#) 2015 Guidelines for the Development of the Inventory of Hazardous Materials, a location diagram of the hazardous materials or potentially hazardous material should be developed.

4. For the vessel to comply with the regulation, and for the issue of appropriate documentation, an initial survey carried out on board based on the report and IHM is required to be undertaken by the flag administration or its authorised RO.

For vessels already holding a HKC compliant IHM, this could, where permitted by the administration, form the basis for a survey.

For new vessels the initial survey must be completed before the ship is put into service.

The documentation requirements for the survey should be verified with the administration in each case.

5. Maintenance and control of the IHM

The regulation requires that the IHM Part I is maintained and updated throughout the operational life of the ship. Any changes in status of hazardous materials in new installations resulting from repairs and conversions is to be reflected in the IHM.

The regulation also requires that the vessel must continue to demonstrate the control of hazardous materials.

IHM maintenance procedures, including a procurement policy, should be formulated under the vessel's SMS to ensure that no prohibited or restricted items as per IHM are brought on board. As per the policy, suppliers must be required to provide a MD or SDoC for each item or batch of items brought on board. These documents must be securely stored throughout the life of the vessel.

After the issue of the inventory certificate, or statement of compliance, periodical survey by the issuing authority is required for the renewal of the certificate, the period to not exceed 5 years. The Flag administration may also impose an expiry date for the statement of compliance and make it subject to a renewal survey.

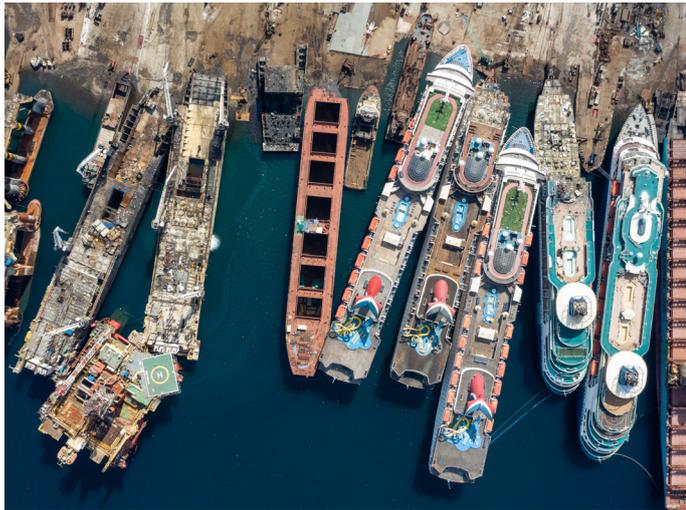
As stipulated in the SRR, an additional survey by the certifying authority is required in case of a significant change to the vessel and its contents where this has an impact on the IHM. The requirements for survey should be discussed with the issuing authority on a case by case basis.

Ship Recycling and the Facility

In addition to the Part I of the IHM issued to the vessel, prior to the recycling of a ship at the end of its life, Part II for operationally generated waste and Part III for items in the ships stores must be included in the IHM and verified by the certifying authority either the

administration or RO. Reference is drawn to the [MEPC 269\(68\) 2015](#) Guidelines for the Development of the Inventory of Hazardous Material list in Table C and D for the potentially hazardous items and regular consumables containing potentially hazardous materials. These lists should be considered while preparing the inventory under Part II and Part III.

From 31 Dec 2018 it is obligatory for large seagoing vessels flying the flag of an EU Member State that the recycling be undertaken only in a recycling facility that has been approved by the EU and therefore included in the [European List of ship recycling facilities](#).



The administration is to be provided with all relevant information for the ship recycling including:

- The IHM with the Part I, Part II and Part III
- A ship recycling plan prepared by the recycling facility based on the information provided by the ship

The administration is to issue a Ready for Recycling Certificate which will include details of the IHM document and the ship recycling plan. The Ready for Recycling Certificate will be issued upon successful completion of a final survey of the vessel and shall have a validity not exceeding 3 months, with a possible extension only for a single voyage directly to the recycling facility.

Any operations conducted by the vessel prior to recycling should attempt to reduce the amount of wastes, fuels and cargo residues remaining on board at the time the vessel reaches the recycling facility.

Ship owners are responsible for the ship until that responsibility has been accepted by the recycling facility in a documented undertaking. Reference is drawn to the Appendix 4 of the HKC for the proposed reporting templates.

Port State Control and SRR

Where a vessel inspection is initiated under the PSC EU directive, as a minimum, the inspector is required to check the certificate or statement of compliance issued

to the vessel for compliance with the EU SRR.

In the event of failure to produce such a document, or where clear grounds is established for any non-compliance under the EU SRR, the PSC may require further inspection under the SRR regime. This could be carried out by the PSC inspector or a SRR inspector.

An initial inspection on board under the SRR regime is to be followed up with a detailed inspection if further clear grounds for non-compliance have been established. The detailed inspection could include taking samples of materials and testing in an independent accredited laboratory.

Clear grounds are, but not exhaustive list:

- Missing certificates required under SRR related;
- IHM is not ship specific or deviates from actual;
- Missing entries as required and listed in Annex I and II of SRR;
- Missing procedure for maintaining the IHM

A ship may be warned, detained, dismissed or excluded from a port or offshore terminal under the jurisdiction of a Member state if the Master fails to provide a certificate or statement of compliance as required under the SRR for the vessel.

Failure to update the IHM is not a detainable deficiency but is to be reported to the flag administration and is requiring rectification in the nearest renewal survey for the vessel.

[Guidance on SRR inspections](#) issued by EMSA states that non-compliance with the EU SRR Directive is not a PSC deficiency and therefore does not affect the vessels risk profile under the PSC regime.

Conclusion

With the disruption caused by Covid-19, and based on representations from industry stake holders, the European Commission has suggested to the EU member states that they apply “a harmonised approach for a limited period of 6 months’ after the entry into application of the IHM-related obligations for existing EU flagged ships and non-EU flagged ships calling at EU ports (i.e. **until 30 June 2021**)”

The burden of proof is on the ship owner to evidence measures that they have so far undertaken to obtain the necessary certification and documentation. The PSC has been advised to assess the evidence and make decisions on a case by case basis. Where the PSC accepts that evidence, the IHM should then be completed and approved within 4 months of such a PSC inspection. Any further delay to having the appropriate certification is to be appropriately evidenced. Further details is in the [BIMCO notification](#).

The intention of the IMO adopted HKC (but not enforced to date having not met the minimum required implementation criteria), and the now fully enforced EU SRR is to provide:

- a regulation for design, construction, operation and preparation of ships so as to facilitate safe and environmentally sound recycling of ships, without compromising safety and operational efficiency;
- the operation of ship recycling facilities is carried out in a safe and environmentally sound manner; and
- an enforcement mechanism is established for ship recycling, incorporating certification and reporting requirements

There are existing restrictions or prohibitions in place for use of hazardous materials in shipbuilding, but vessels built before the implementation of these controls still contain hazardous materials, where permitted, until new installations have been fitted. There are materials such as asbestos, PCBs, CFCs found on ships that are prohibited in new installations. There are also other commonly found inclusions of hazardous materials in electrical equipment and products used and installed on board vessels. Whilst not prohibited or restricted, they are flammable, emit toxic gases when burnt, contaminate air and water, and can result in serious harm to human health, cause serious injuries and fatalities and damage the environment.

Compliance with the HKC and the EU SRR provides the ship owners and the ship recycling facilities the regulatory framework to establish policies and procedures facilitating safe, sustainable and responsible ship recycling.