

ClassNK
R & D PROJECT



ClassNK Ship Recycling Seminar

Additional Requirements of **EU SRR**

For your competitive sustainability

HKC & *EU*: New legislation

red texts = EU-specific

IMO: “Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships”

***EU*: “Regulation of the European Parliament and of the Council on ship recycling ...”**

Applicable to:

- all merchant ships* > 500GT
- *all EU-flagged and non EU-flagged ships* calling at an EU port > 500GT*
- All ship recycling facilities (SRF) involved in recycling of above ships



"ship" means a vessel of any type whatsoever operating or having operated in the marine environment, and includes submersibles, floating craft, floating platforms, self-elevating platforms, Floating Storage Units (FSUs), and Floating Production Storage and Offloading Units (FPSOs), as well as a vessel stripped of equipment or being towed

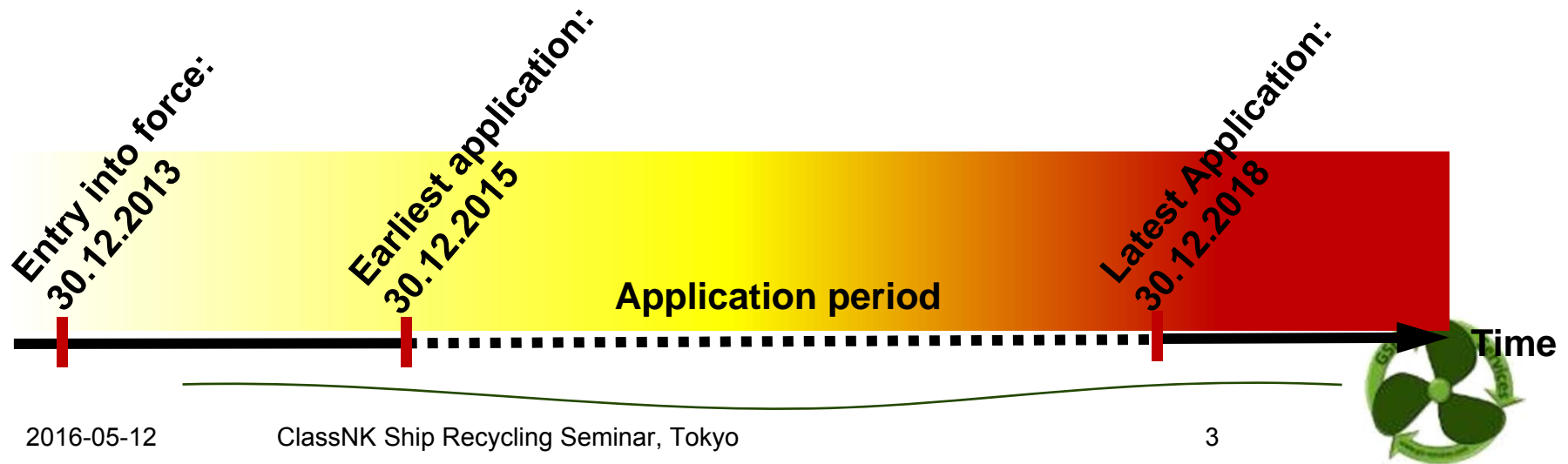


EU Ship Recycling Regulation

- Hong Kong Convention: Entry into force in many years
- EU Ship Recycling Regulation: Entry into force: Dec. 30th 2013

Application of Regulation:

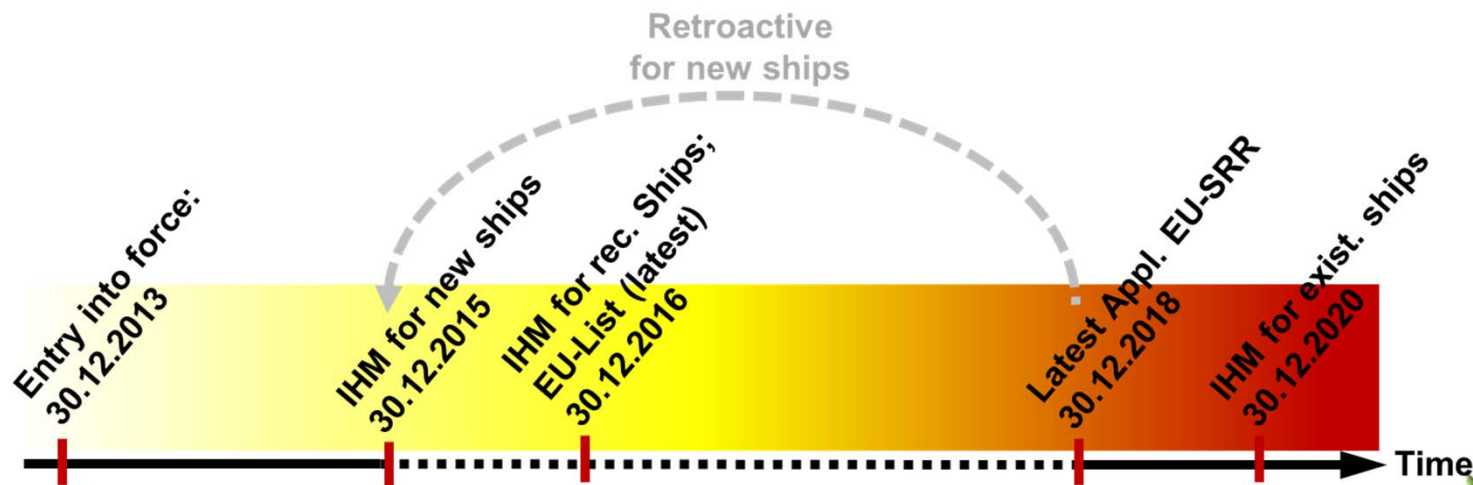
- not before 30.12.2015 (two years from EiF), or
- 6 months after ship recycling capacity on EU List reached $\geq 2,5$ mio LDT
- Not later than 30.12.2018 (five years from EiF)
- SRFs application & authorization: ~ end of 2016



EU Ship Recycling Regulation

- Application of IHMs

- New ships: IHM from 30.12.2015
- All exst. ships: IHM until 30.12.2020 (incl. all visiting ships) within 6 months of change to EU flag
- Ships for recycling: IHM required when EU-List is available



HKC & EU

- HKC-Guidelines
 - 2011 Guidelines for Development of Ship Recycling Plan (Res. MEPC.196(62))
 - 2015 Guidelines for the Development of IHM (Res. MEPC.269(68))
 - 2012 Guidelines for Safe and environmentally Sound Ship Recycling (Res. MEPC.210(63))
- EU-Guidelines
 - References to IMO Guidelines
 - Own IHM Guideline under development by EMSA
 - Financial scheme for EU-flagged recycling ships under discussion
 - Independent Verifier Scheme for authorization of SRFs



Preparation of IHM for Ships

Asbestos PCBs Ozone Depleting Substances Organotin Compounds (AFS) EU: + PFOS	Building & Operation	Prior to Recycling	
		Part I Structure & Equipment	Part II Hazardous Wastes
Table A Materials Mandatory for all ships & installations	✓		
Table B Materials Mandatory for new ships & installations, voluntary for existing ships	✓		
Table C Materials Heavy Metals Radioactive Substances EU: + HBCDD		✓	✓
Table D Excluded items			✓



HKC & EU: MD-preparation

MD Table A: (for all ships)

Table	Material Name		Threshold level	Present above threshold level Yes or No	IF YES		IF YES Information on where it is used	
					Material Mass			
					Amount	Unit		
Table A Materials listed in appendix 1 of the Convention	Asbestos	Asbestos	0.1 %*					
	PCB's	Polychlorinated Biphenyls (PCBs)	50 mg/kg**					
	Ozone depleting substances	Chlorofluorocarbons (CFC's)	No threshold level					
		Halons						
		Other fully Halogenated CFC's						
		Carbon Tetrachloride						
		1,1,1-Trichloroethane						
		Hydrochlorofluorocarbons						
		Hydrobromofluorocarbons						
		Methyl Bromide						
	Bromochloromethane							
Anti-fouling systems containing organotin compounds as a biocide		2,500 mg total tin/kg						
EU***	Perfluorooctane sulfonic acid (PFOS)	No threshold level						

* currently no asbestos is tolerable under SOLAS Reg. II-1/3-5 and Para. 13 of MSC.1/Circ.1374., this requirement is subject to future changes, if the timely limited threshold of 1% is applied this has to be mentioned clearly in the remarks section

** 50ppm is to be used as threshold for reporting existing PCB only. NOTE: All new materials are to be free of any PCBs!

*** Additional material to be listed acc. to Annex 1 and Annex 2 of the 2013 EU Ship Recycling Regulation.



HKC & EU: MD-preparation

Table B: HazMats for new ships and new installations, as far as practicable for existing ships

Table	Material Name	Threshold level	Present above threshold level Yes or No	IF YES Material Mass		IF YES Information on where it is used
				Amount	Unit	
Table B Materials listed in appendix 2 of the Convention	Cadmium & Cadmium Compounds	100 mg/kg				
	Hexavalent Chromium and Hexavalent Chromium Compounds	1,000 mg/kg				
	Lead and Lead Compounds	1,000 mg/kg				
	Mercury and Mercury Compounds	1,000 mg/kg				
	Polybromated Biphenyl (PBB's)	50 mg/kg				
	Polybrominated Diphenyl Ethers (PBDE's)	1,000 mg/kg				
	Polychloronapthalenes (Cl>=3)	50 mg/kg				
	Radioactive substances	No thr.level				
	Certain Shortchain Chlorinated Paraffins	1%				
EU***	Brominated flame retardants (HBCDD)	No threshold level				

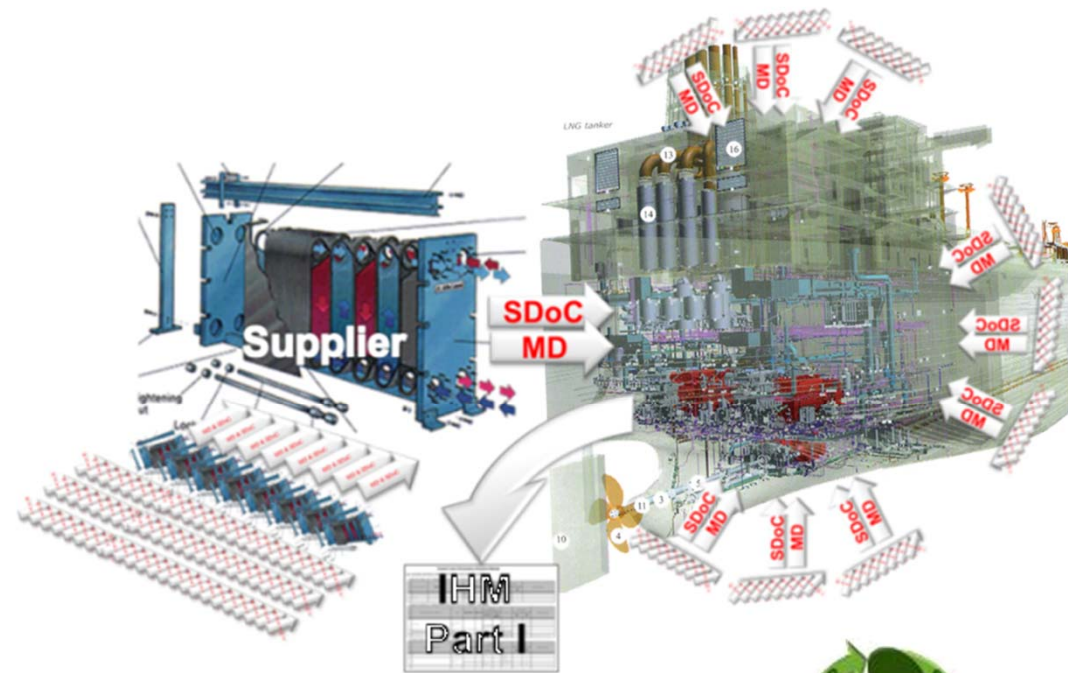


HKC & EU: IHMs for New Ships

Shipyard responsible

•Preparation based on information from suppliers of equipment and materials for ships' structure:

- Suppliers Declaration of Conformity (SDoC)
- Material Declaration (MD)
- + PFOS + HBCDD



HKC & EU: IHMs for Existing Ships

Owner is responsible

- IHM preparation by IHM Expert
- Example for timing of IHM preparation for a cargo vessel:

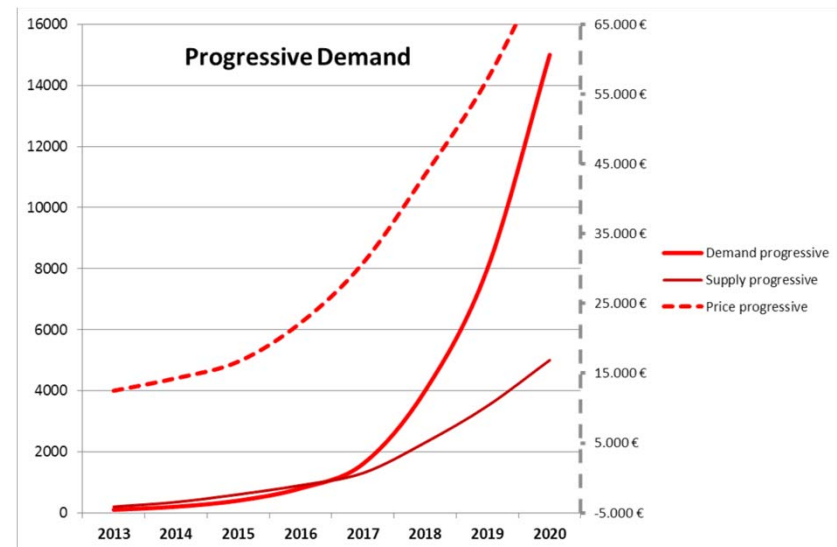
Activity	Duration
Review of documents and plans	4 hrs
Preparation of Visual Sampling and Check Plan (VSCP)	8 hrs
Approval of VSCP by class	Depending on class
Sampling and Inspection <u>onboard</u>	~ 8 hrs
Laboratory Analyses	~ 1.5 weeks
Finalization of IHM and Report	2 days
Certification of IHM by class	ClassNK



EU: IHM deadlines

- HKC affects ~ 48.000 ships (unknown deadline)
- EU affects ~ 30.000 ships (until Dec. 31st, 2020)

≈ 27 ships need an IHM incl. certificate every day from today onwards to meet the EU deadline



HKC & EU

Authorization of Ship Recycling Facilities


- Occupational Health & Safety
- Environmental protection & monitoring
- Trainings
- Provision of PPE
- Pre-demolition activities
- Emergency preparedness & response



HKC & EU

Requirements ...for inclusion of facilities located in third countries ...Technical guidance note (2016/C 128/01)

- Recycling of ships only @ authorized SRF / “EU-List”
- Handling of HazMats & wastes on impermeable floors with effective drainage
(all materials from a ship are waste or HazMat)
- Operation from built structures
- Control of leakage esp. in intertidal zones
- Disposal of wastes and hinterland waste management *(broadly equivalent to relevant ... Union standards)*
- Application scheme for non-EU SRFs



ANNEX	
PART 1 Identification of the ship recycling facility	
Name of ship recycling facility	
Distinctive Recycling Company Identity No.	
Full address of ship recycling facility	
Primary contact person	
Phone number	
Email address	
Name, address, and contact information of ownership company	
Working languages	
PART 2 Additional information	
Methods of recycling (1)	
Types of ships that can be recycled	
Procedure for approval of the ship recycling plan (1)	
Number of employees (1)	
Maximum ship recycling output achieved on a given year in the past 10 years (in T/10) (1)	



Application Scheme of EU-SRR **for SRFs located in a third country (Art. 15)**

Article	Phase	Activity	Responsibility
15(4) § 1	Preparation	1. Preparation for compliance 2. Contracting IV	SRF
	Verification	1. Review of SRFP 2. On-site inspection 3. Certification of SRF	Independent Verifier (IV)
	Application	1. Filling in 2. Submission of application form to Commission	SRF
15(4) § 2	Certification / Publication	1. On-site inspection (optional) 2. Decision on inclusion of SRF in EU-List	EU

1st round for application ends on July 1st 2016



Conclusions

- IHMs
 - 2 IHM standards:
 - EU-ships (=HKC & EU SRR)
 - non-EU ships (=HKC)
 - Deadline fixed for huge number of ships
 - Too few prepared so far, lack of IHM Professionals
 - IHM = technical file & pre-requisite for green ship recycling
- SRFs
 - No experiences with Technical Guideline of EU (FAQs)
 - Many interpretations
 - Impact of EU-SRR for end of life ships negligible
 - Financial support only for EU-flagged ships in EU-authorized SRFs



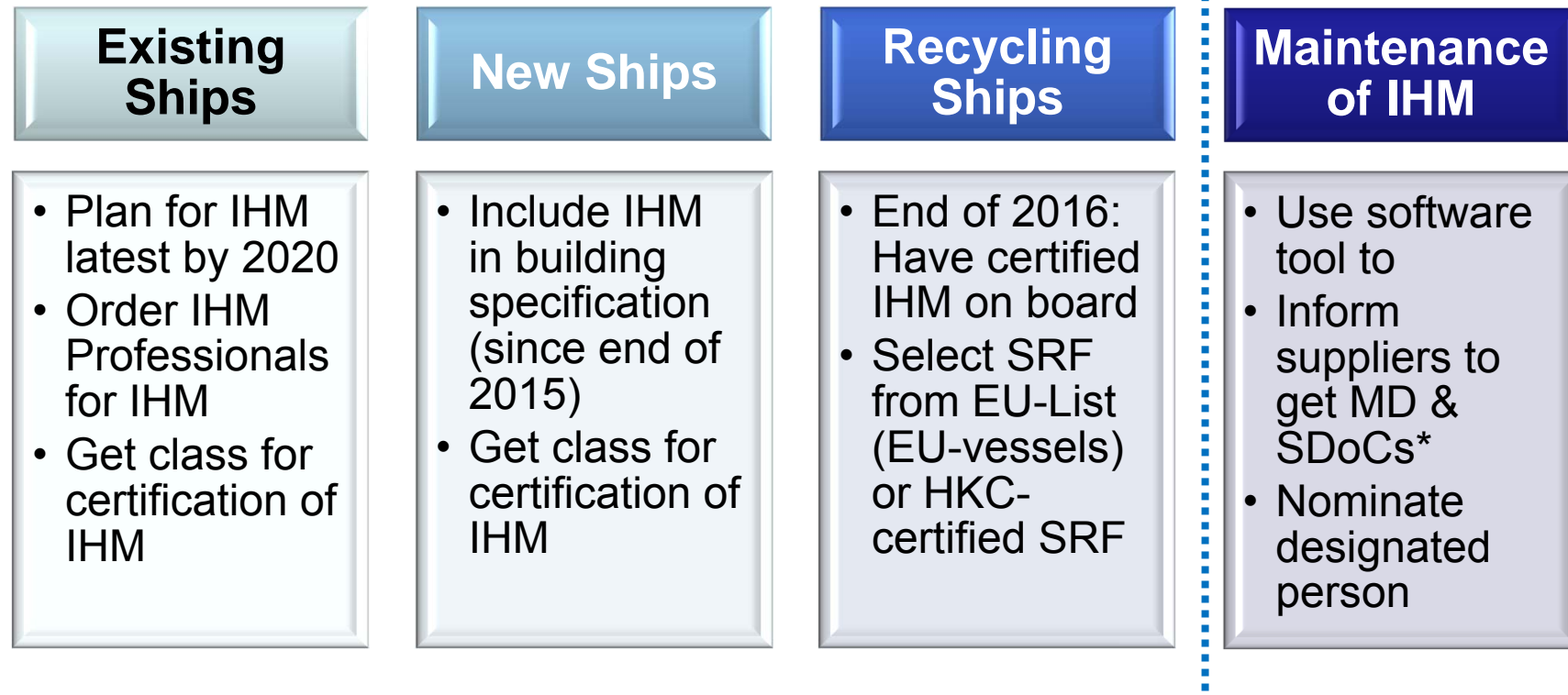
***We look forward to
working with you!***

GSR Services GmbH
Auf dem Brink 1
21394 Suedergellersen
Germany

info@gsr-services.com
www.gsr-services.com
Tel: +49 4135 31789 -50
Fax: +49 4135 31789 -62



Advise for shipowners



* Requires intensive communication with supply chain and may take long time to implement!



Why GSR Services

- Our experience ensures:
 - Accuracy
 - Effective processing
 - No/limited disturbance of operations
 - Perfect guidance and services for all clients
- GSR is:
 - Dedicated to best practice
 - At the forefront of all developments
 - Understanding all aspects and complexities
 - Providing support for effective compliance for all stakeholders and for entire life cycle of ships, from cradle to grave
 - Member of IHMA*



* www.ihm-association.org

