

Certification of Ship Recycling Facilities by ClassNK

12 May 2016
Ship Recycling Team
ClassNK

The Hong Kong Convention





The Hong Kong Convention* (HKC) was adopted on 15 May 2009.

* The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009

IHM for Ships

SRP for **Ship Recycling**

SRFP for Ship Recycling Facilities



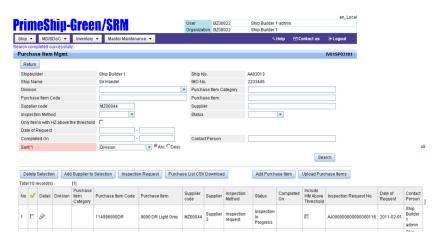




Solutions for IHM development



- ✓ ClassNK provides "PrimeShip-GREEN/SRM", software to facilitate IHM development utilizing a cloud computing system in cooperation with IBM. About 2,500 users are registered as of December 2015.
- ✓ ClassNK Consulting Service Co., Ltd. (NKCS) is providing expert services to develop IHMs for existing ships.



https://www.psgreensrm.com/

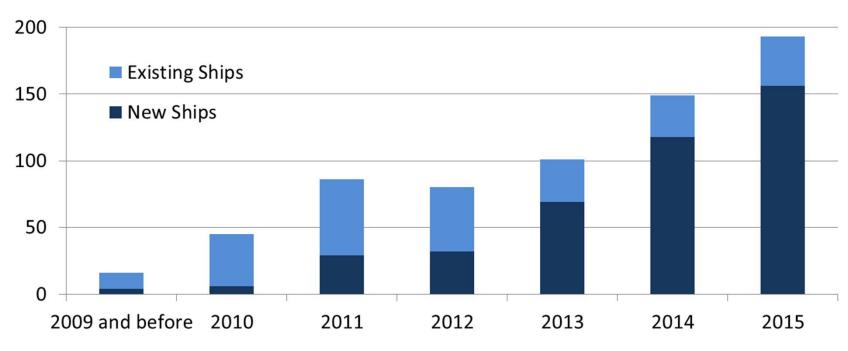




Certification of IHM



- ClassNK issues Statements of Compliance for IHMs.
- ✓ Once the Convention enters into force, the Statements shall be reissued as conventional certificates.
- ✓ Class notation "IHM" is also provided.



No. of issued HKC Statements of Compliance

Solutions for Ship Recycling Facilities

ClassNK

















- NKCS provides services so that ship recycling facilities (SRFs) can implement the requirements of the Convention, including the development of SRFPs.
- ✓ ClassNK has issued HKC Statements of Compliance (SOC) to 9 SRFs in the world;

Japan: 1

China: 4

India: 4

Basic process of consultation and certification ClassNK

Phase 1: Promotion by



- (1) Pre-assessment
- (2) Gap Analysis



Output



Results of Gap Analysis



Phase 2: Consultation by



- (1) Document Base Analysis
- (2) Site Base Analysis
- (3) Finalization of SRFP



Completed SRFP



Phase 3: Certification by CassNK

- (1) Review of SRFP
- (2) Site Inspection



Examined **SRFP**

SOC

How to certify SRFs



As per the ClassNK Check List based on the requirements of the IMO Guidelines, document examinations and site inspections are carried out.



2012 Guidelines for Safe and Environmentally Sound Ship Recycling (Res. MEPC.210(63))

- √ Facility management
- √ Facility operation
- ✓ Worker safety and health compliance approach Safe for entry, Safe for hot work, etc.
- ✓ Environmental compliance approach

 Management of Hazardous Materials, etc.

Worker safety and health compliance approach ClassNK

- ✓ Worker health and safety
- ✓ Key safety and health personnel
- ✓ Job hazard assessment
- ✓ Prevention of adverse effects to human health
 - Safe-for-entry and safe-for-hot-work procedures
 - Drums, containers and pressure vessels
 - Prevention of falling from heights
 - Gear and equipment for rigging and materials handling
 - Personal protective equipment, etc.



First aid training at Red Cross



Drill for Firefighting

- ✓ Emergency preparedness and response plan
- √ Fire and explosion prevention, detection and response



Gas detector



Sticker for Gas Free for Hot Work



Taking care of LPG and O2 cylinders



Guard rail for fall prevention from height

Environmental Compliance Approach



- ✓ Environmental monitoring
- ✓ Management of Hazardous Materials (HM)
- ✓ Environmentally sound management of HM
 - Asbestos
 - PCBs
 - Ozone-depleting substances (ODS)
 - Paint and coatings
 - Hazardous liquids, residues and sediments
 - Heavy metals
- ✓ Prevention of adverse effects to the environment
 - Spill prevention, control and countermeasures
 - Storm-water pollution prevention
 - Debris prevention and control
 - Incident and spills reporting procedures



Packing of asbestoscontaining material (ACM) in special bag

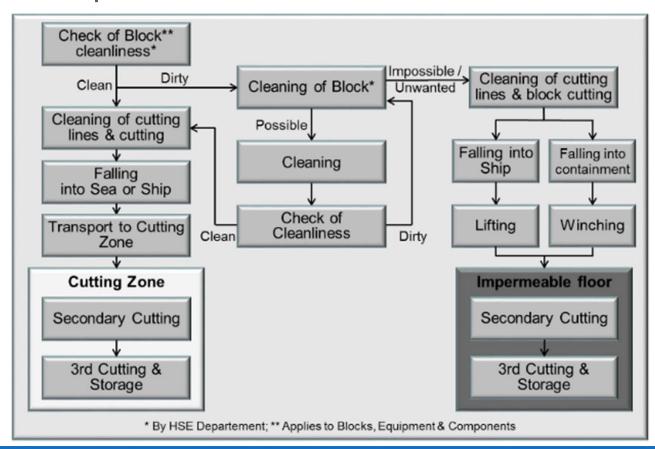


Hazardous Waste Manifest



Establishment of the system for dirty blocks and machinery

- ✓ Not to be placed at intertidal zone without cleaning.
- ✓ To be transported to block cutting area with proper spill prevention, and in short order





Impermeable floor and drainage system





First Group: Completed in December 2015

- 1. RL Kalthia Ship Breaking
- 2. Priya Blue Industries
- 3. Shree Ram Vessel Scrap
- 4. Leela Ship Recycling



Second Group: Started from August 2015 (ongoing)

- 5. Y. S. Investments
- 6. J.R.D. Industries





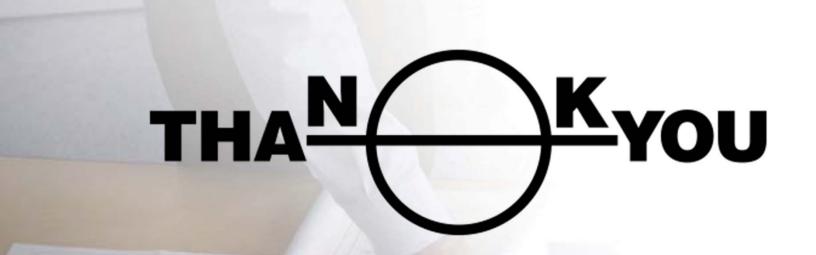
Third Group: Just started!

- 7. Shree Ram Steel & Rolling Industries
- 8. R. K. Industries
- 9. NBM Iron & Steel Trading
- 10. Baijnath Melaram
- 11. Jawandamal Dhannamal
- 12. Diamond Industries



ClassNK have been providing solutions for the smooth implementation of HKC, and will make further effort.





for your kind attention

