11. Miscellaneous

11.3 Ship Recycling

11.3.1 The trends of Ship Recycle Convention

With the object of the controls of the workmen's accident and the environmental contamination in the field of ship recycling industries, so called Ship Recycle Convention was adopted in Hong Kong in May, 2009. In this Convention, the development of the Inventory (Inventory of Hazardous Materials) and the safety and environmental requirement for the Ship Recycling Facilities are provided.

There is no country which has ratified the Convention as of the end of 2011. Considering one of the necessary conditions for the Convention becoming effective is the demolish capacity of the countries that concluded the Convention and India and China which hold the key in this respect are positive for ratification of the Convention. All of the necessary conditions will be satisfied in comparatively early time, and the Convention is expected to become effective within 2014 in the shortest case in accordance with the provisions that the Convention shall come into force after the lapse of 24 months since the necessary conditions has been fully satisfied.

As the movement in 2011 in connection with the adoption of 6 guide lines relating to this Convention, the “Guidelines for the Development of the Ship Recycle Plan” was adopted in the 62nd Marine Environment Protection Committee (MEPC62) of IMO held in July. The amendment of “Guidelines for the Development of the Inventory of Hazardous Materials” was adopted. In addition, as for 4 guidelines for ship recycling facilities, inspection and certificates etc., the investigation and preparation have been in progress with the objective of the adoption within 2012.

11.3.2 The development of the Inventory

The Inventory consists of 3 Parts, namely, Part I in which the hazardous materials contained in ship's structure or machinery are described, Part II in which the wastes generated during operation are specified and Part III in which the stocks are listed. Among the above, Part I is developed, maintained and renewed throughout the period of operations. Others are prepared prior to recycling.

The actual development of Part I of the Inventory has already started in order to promote the smooth introduction of the Ship Recycle Convention. The concrete materials to be listed there are the materials prohibited or controlled (4 materials of asbestos, PCB, ozone-depleting substances, and organotin compound) and specially designated chemical materials (9 materials including cadmium, hexavalent chromium, lead and mercury etc.). In the matter of investigation procedures thereof, there are 2 kinds of procedure, namely, the procedure for new ships and the procedure for existing ships.

In regard of the investigation procedure for new ships, the Material Declaration (MD) etc. bearing the information of hazardous materials are collected from the makers of parts・materials・marine machinery by the shipyard in the process of ship's design and construction, and they are properly arranged and developed as Part I of Inventory for new ships. It is conjectured that this Inventories have been already developed for dozens of new ships within Japan.

Since 2009, ClassNK has provided the shipyards with the developing software of the Inventory and the suppliers of marine commodity with the production tool like MD etc. free of charge, and further, from April, 2011, they started to supply “PrimeShip-GREEN / SRM” that is the developing soft for realization of WEB by making use of cloud environment.

In the investigation procedure for existing ships, Part I of the Inventory is commonly developed by experts, who have rich knowledge and experience about marine technology and hazardous materials, to
carry out the examination of the present conditions of ships under operation, namely, the analysis of technical information like plans and drawings, the onboard check, the collection and test of samples.

In regard to the domestic development of Part I of the Inventory for existing ships in Japan, Japan Ship Technology Research Association (JSTRA) has started the development works since 2008, and the number of ships for which their actual development services were provided was 10 ships in 2008, 20 ships in 2009, 29 ships in 2010 and 40 ships in 2011 (as of the end of 2011), and the number of ship has steadily increased and the total number has reached to 99 ships at the end of 2011. Among the above ships, the ocean going ships are 77 and the domestic coastal ships are 22. In the following Figure, the numbers of ships, for which the development of the Inventory have been actually provided, are shown in every year in which the respective ship was built. As regards the ocean going ships, the ships of comparatively young age (7~11 years) built in 2000 ~ 2004 occupied the majority in particular, although the ages of ships are widely distributed from the aged ship to the most modern ship. On the other hand, as for the domestic coastal ships, the comparatively aged ships (the age of 17~21 years) built in the years 1990~1995 occupied the half of number. It seems that the reason may be due to some commercial circumstances behind the development of the Inventory such that the buyer has often demanded the preparation of the Inventory for recent years to the ship owner owning the old aged domestic coastal ship which might be sold in near future to the buyer of outside of the country.

The record of development of the Inventory Part I for existing ships (JSTRA, at the end of 2011)

(Fig. 11.3.1)