

COUNCIL
WORKING PARTY ON SHIPBUILDING

IMPACT OF INTERNATIONAL SAFETY AND ENVIRONMENTAL REGULATIONS ON THE
SHIPBUILDING INDUSTRY

(Presentation by Japan)

This document by the Ministry of Land, Infrastructure and Transport of Japan, will be presented at the third session of the Workshop with non-member economies on shipbuilding policies to be held on 18-19 December 2006.

Contact: Structural Policy Division, Mr. Danny Scorpecci. tel: +33 1 45 24 94 33;
fax: +33 1 44 30 62 57; e- mail: danny.scorpecci@oecd.org

JT03218530

Impact of International Safety and Environmental Regulations on the Shipbuilding Industry

Ministry of Land, Infrastructure and Transport
Japan

IMO Safety and Environmental Regulations and Shipbuilding Industry

- IMO has served as a permanent international body to establish internationally uniform safety at sea and marine environmental regulations.
- Safety and environmental regulations, especially those which involve designs and structures could significantly impact shipbuilding industry as well as shipping industry.
- Shipbuilding industry could be affected not only from a technical but also from a business aspect.

Case Study: Double Hull Requirement of Oil Tankers



1989 *Exxon Valdez* Oil Spill

- 1992 IMO adopted Double Hull Amendments
 - New tankers (delivered on or after 6 July 1996) must be fitted with double hulls
 - Existing tankers, in principle, must be phased out no later than 30 years after their date of delivery.



Case Study: Double Hull Requirement of Oil Tankers



1999 *Erika* Oil Spill

- 2001 Amendment to accelerate the phase-out of single hull tankers
 - Single hull tankers, in principle, must be phased out by 2015



Case Study:
Double Hull Requirement of Oil Tankers

 2002 *Prestige* Oil Spill

- 2003 Amendment to accelerate the phase-out of single hull tankers
 - Single hull tankers, in principle, must be phased out by 2010



IMO Safety and Environmental Regulations
and Shipbuilding Industry

- Double hull requirements might have positive impact on shipbuilding demand for oil tankers

Do IMO safety and environmental regulations impact shipbuilding demand only?

IMO's Role and Accomplishment

- Purposes of IMO
 - To provide machinery for co-operation among Governments in the field of governmental regulations relating to technical matters of all kinds affecting shipping engaged in international trade;
 - To encourage and facilitate the general adoption of the highest practicable standards in matters concerning the maritime safety and prevention and control of marine pollution from ships: etc.

IMO's Role and Accomplishment

- IMO has significantly contributed to safety at sea and marine environment.
 - *Torrey Canyon* Disaster led to the adoption of protocols at the Tanker Safety and Pollution Prevention Conference, which drastically changed the Convention.
 - Marine casualty rate has declined. In 2004 it was about 1.4% compare to about 4.4% in 1979.
 - Oil spill volume also has declined steadily since 1979

Is Shipbuilding Industry's point of view adequately reflected in IMO discussion?

Case Study: Permanent Means of Access



1997- *Nahodka* disaster



1999-*Erica* disaster

An issue of the structural condition of older ships came up to surface.

- 2000-The Bahamas' Proposal

Each space within the cargo hold or cargo tank to be provided with a permanent means of access (PMA) to enable inspections and surveys.

- Japan and other states pointed out technical problems of PMA.
- May 2002-Draft Revised SOLAS Regulation was prepared.

IMO decided to postpone adoption recognizing the need for further technical discussion.



Nov. 2002-*Prestige* disaster

Dec. 2002-the Original PMA Regulation was adopted without full discussion of technical issues.

Case Study: Permanent Means of Access

Dec. 2002

The Original PMA Regulation
(Entry into force in Jan. 2005)

Difficulty of
Maintenance

Shipping industry expressed concerns about
technical problems.

Nov. 2003- the IMO Assembly agreed to discuss further.



May, 2005- The Revised PMA Regulation was adopted.

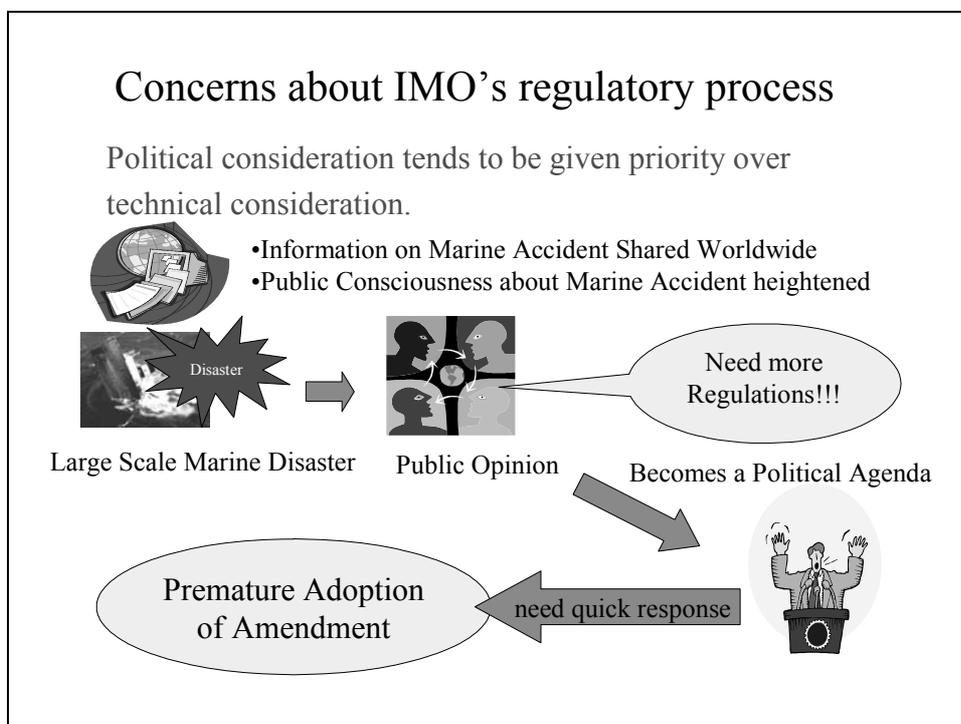
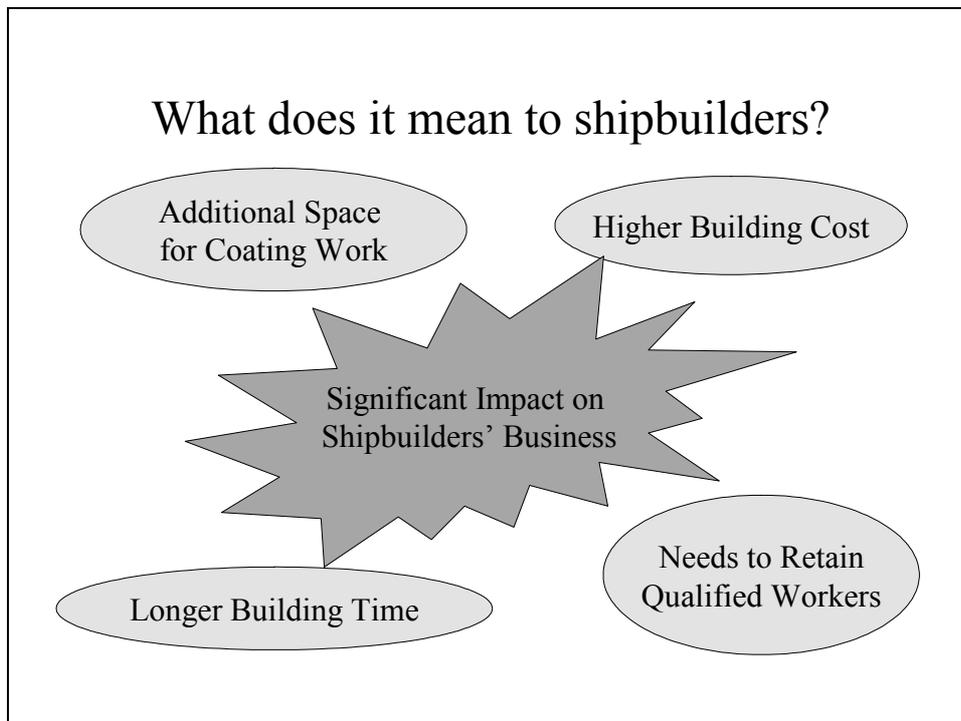
PMA Regulation Substantially Modified

Case Study: Performance Standard for Protective Coating

- Originally performance standards for protective coatings were to be developed for double-side skin spaces of bulk carriers as a part of initiative for bulk carrier safety.
- While double-side requirement for bulk carriers was shelved, the development of standards for coating moved forward by itself.
- The Standard has incorporated a concept of “maintenance-free”, and mandates a target useful coating life of 15 years without maintenance.
- In 2006, SOLAS Amendments was adopted.

Coating Standard

- Applied to ballast tank for all types of ships not less than 500 GT and double-side skin spaces arranged in bulk carriers of 150m in length and upward.
- Applied to all ships for which the building contract is placed on or after 1 July 2008.
- Mandates surface preparation with fresh water
- Requirement for dry film thickness
- Qualification requirement of coating inspectors

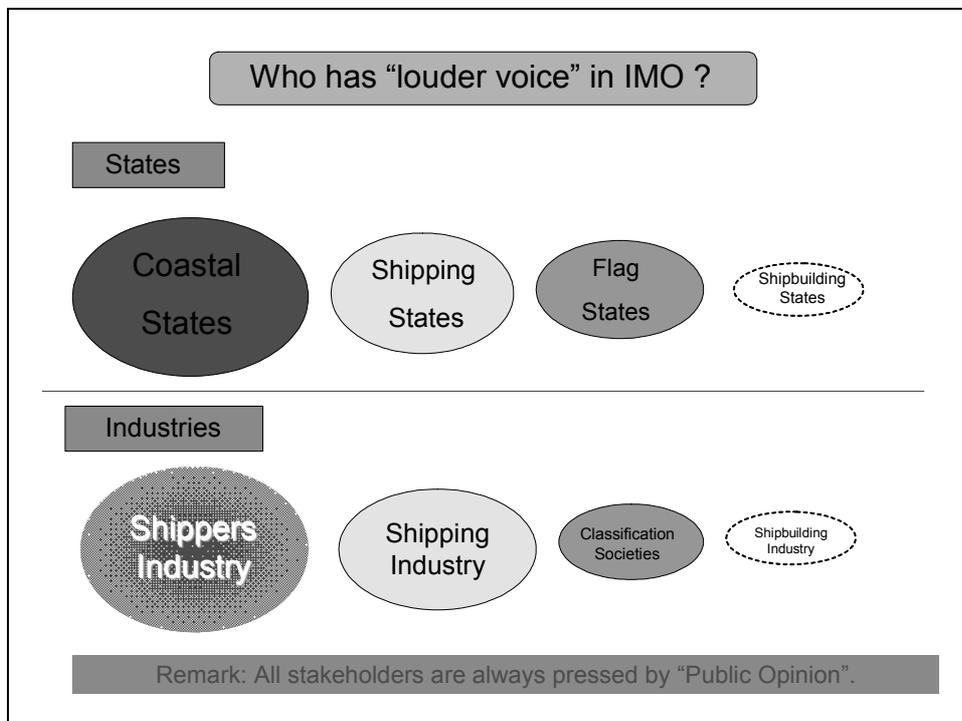
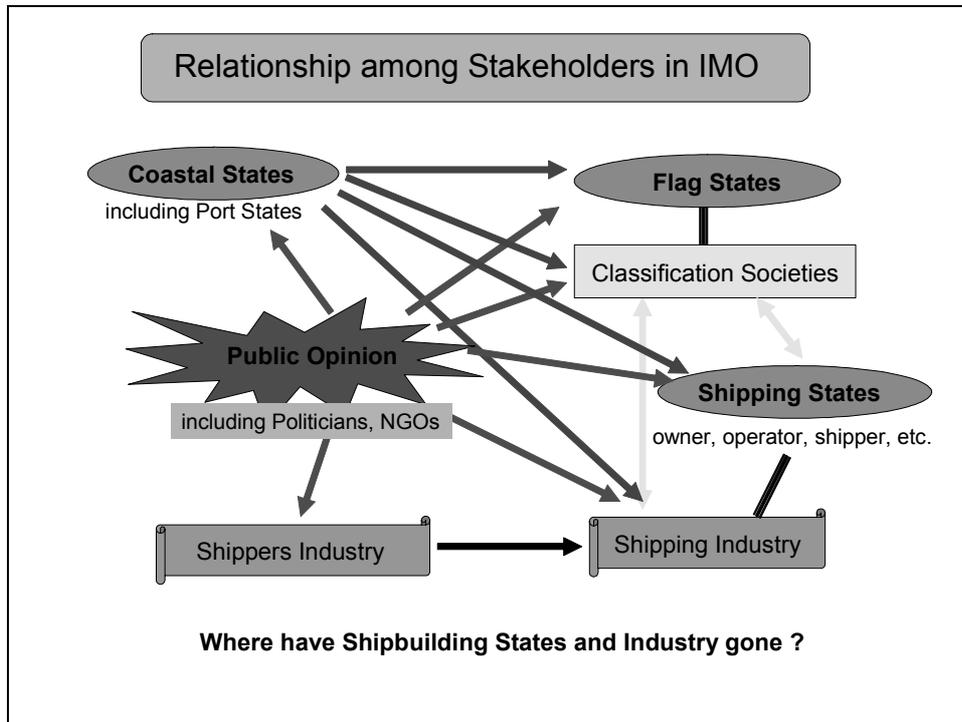


Concerns about IMO's regulatory process

- The Convention could be amended prematurely without thorough technical consideration, especially from the perspective of naval architecture.
 - Major players in IMO are Flag States, Coastal States, and Shipping States.
 - Shipping industry and shippers' industry also have significant influence.
 - Only major four players retain enough knowledge to be called Shipbuilding State.
 - Consequently, the Convention could be amended prematurely without enough technical consideration.

Concerns about IMO's regulatory process

- Change of Climate in Shipping Industry
 - Segmentation and specialization of operations
 - Vessel Ownership, Management, Marketing
 - Consequently, the extent of technical knowledge, especially understanding of naval architecture, within the shipping industry has diminished.



Current issues on IMO agenda

Development of Convention for Ship Recycling.

- Most of ship recycling activities take place in developing countries in South Asia. It is reported that working practices in some recycling facilities present environmental and occupational health and safety risks, and has raised international concerns.
 - It is important to maintain proper ship recycling activities for creating healthy demand for newbuildings.
 - Draft of a mandatory instrument is in development.
 - Banning use of hazardous substances, such as asbestos, in the construction of ships
 - Management and certification of the use of potentially hazardous substances through the life cycle of ships, from designing, construction, operation to dismantling.
 - Proper pre-recycling preparation and certification
 - Mandating compliance with minimum standards and certification for recycling facilities.

Significant impact on ship design and material procurement

Current issues on IMO agenda

- Common Structure Rule & Goal Base Standards
 - CSR is rule of classification societies developed by IACS, not by IMO.
 - Close relationship between development of CSR and discussion of GBS at IMO
 - GBS is new construction standards and performance standards based on the “goal” to be achieved.
 - GBS is aiming to introduce construction requirements for not only strength of structure but also corrosion protection.

It could have significant impact on ship design

Conclusion

- IMO Safety and Environmental Regulations has significantly contributed to safety at sea and protection of marine environment.
- IMO continues to play an important role in the field for the foreseeable future.
- Shipbuilding industry needs to contribute to marine safety and environmental protection as a member of maritime community.
- It is beneficial for shipbuilding states and shipbuilding industry to contribute actively to IMO discussion with the expertise in naval architecture and ship engineering.

How can we contribute to IMO discussion?

Where can we start?

Any strategy?

Suggestions?

- Many economies have separate regulatory agencies for shipbuilding and marine safety/environment.
- Each Administration should direct its marine safety agency to advocate shipbuilding industry's interest in IMO.



Safe, Secure and
Efficient Shipping on
Clean Ocean
(from IMO home page)

Thank You