

# Safety Regulations – how can they be applied more economically?

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**SHIP EFFICIENCY**

by STG

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**Germanischer Lloyd**

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# Effects of new regulations on the shipping industry



- Most new or updated rules and regulations aim to reduce the risks or to minimise the environmental impact involved in shipping.
- Almost any new rule or regulation requires new or additional documentation, to be established and to be maintained.
- Maintaining compliance and knowledge on rules and regulations becomes more time consuming and more difficult.
- What can be done to improve the situation?



or ?



Ship Passport

# Coating performance standard



- The new standard will improve ship safety in the long-term.
- It requires that only certified coatings are applied under controlled conditions and with dedicated supervision.
- A so called coating technical file (CTF) documents the coating application.
- New GL service will offer electronic generation of CTF which then serves as initial condition for the hull life-cycle programme.





# Ballast water management



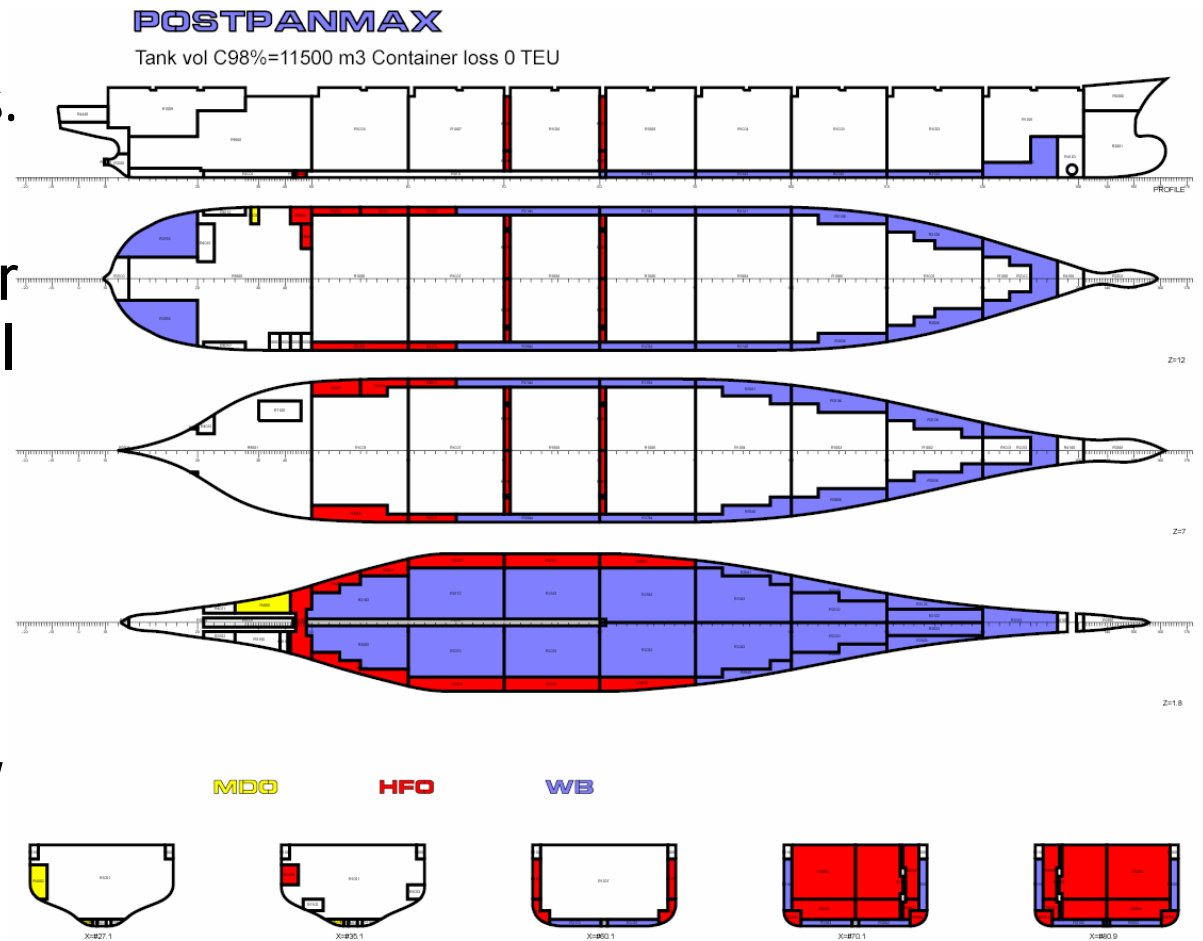
- The new (but not yet into force) convention on BWM aims to reduce the transfer of species through shipping.
- It requires establishing a BWM plan documenting procedures, responsibilities and potential hazards.
- GL offers a model booklet to ease preparation of the BWM plan.
- GL also offers a voluntary class notation BWM which includes thorough checks to ensure smooth ballast water exchanges.



# Fuel-tank protection



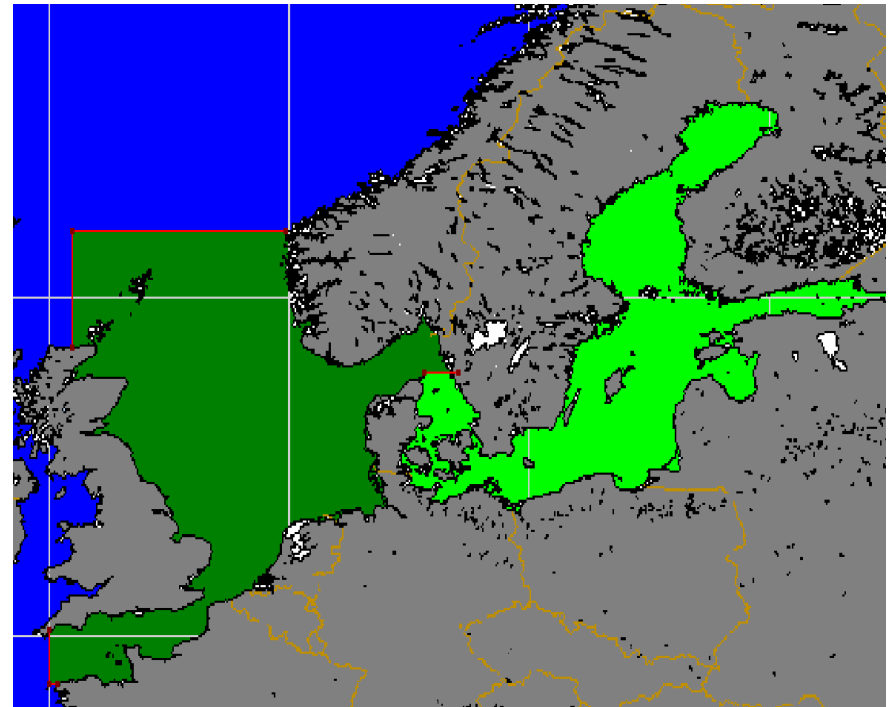
- The new regulation will reduce risk of fuel oil spills.
- It requires either moving fuel oil tanks from the outer shell or proving that fuel oil outflow is less than a defined volume.
- The probabilistic route is a design optimisation.
- GL offers advice to identify designs with minimum cargo capacity loss.



# Sulphur-emission controlled areas



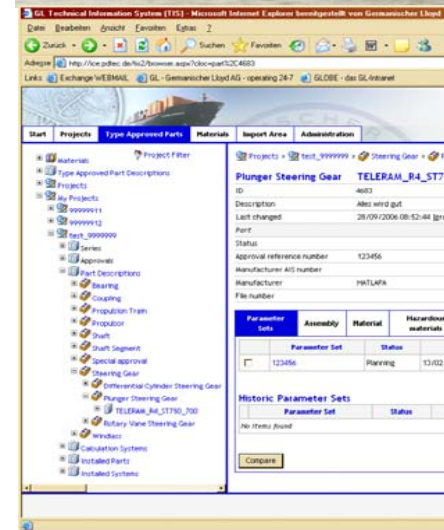
- The new regulation aims to reduce sulphur emission in two dedicated areas: Baltic Sea (2006) and North Sea (2007).
- It requires to document that only low-sulphur fuel was used when sailing in the assigned areas.
- For ships with single fuel systems, a change-over is a method to comply with the regulation.
- Timing of the change-over is critical as the sulphur content can only be gradually reduced in the day tank and low-sulphur fuel is more costly than normal fuel.
- The GL fuel change-over manual is a dedicated product for ship operators to facilitate an easy compliance with the new regulation.



# Ship Recycling



- The new Ship Recycling Convention will be adopted in early 2009. It aims to reduce the risk to life and the environment during ship scrapping.
- It will require to document – for both new and existing ships – hazardous materials onboard specifying type, mass and location. The list is called inventory of hazardous materials (IHM).
- It affects the entire life-cycle of the ship and all involved stakeholders.
- In addition to the certification of the IHM, GL will offer a tailor-made software to maintain the IHM over the life-cycle which can be linked to existing PMS tools.



### Inventory Certificate

Certificate of Compliance

1234567  
IMO-No.

110033  
GL-Register-No.

This is to certify that the Ship  
**“Southern Cross”**

Flag: Germany  
 Port of Registry: Hamburg  
 Owner: Slupper One GmbH  
 Shipyard: Blohm & Voess  
 Place of Build: Hamburg  
 Launching: 2004-08-08  
 Completion: 2004-10-10

Call Sign: BDK66

Has been audited at  
 2006-10-20 by our certified auditor/surveyor in accordance with the Society's Rules

This is to certify that this ship implemented procedures and prepared an inventory on hazardous materials according to the requirements laid out by Germanischer Lloyd following IMO Resolution A.962(23/85).

This Certificate is valid until 2011-10-20  
 Date of completion of Audit/Survey on compliance with procedures to achieve a Green Passport on which this certificate is based 2006-10-20  
 Issued at GL HeadOffice Hamburg on 2006-10-25

This document is supplemented by the "Inventory of HazMat" No GL-aGP001, which forms a part of this certificate.

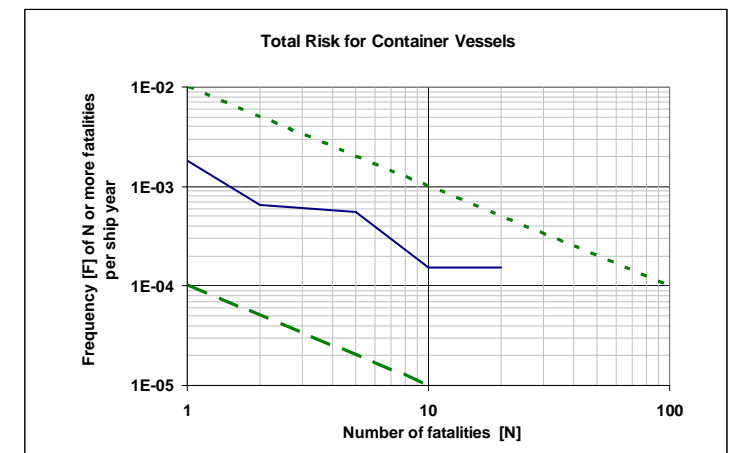
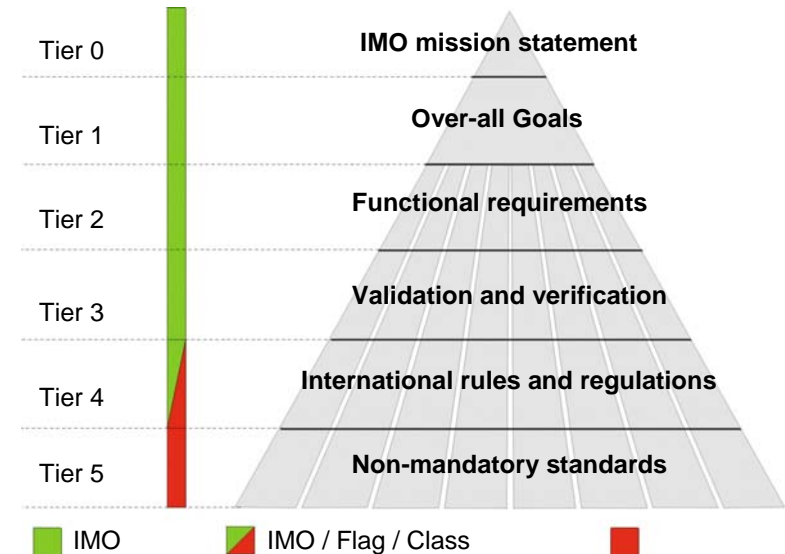
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# Goal-based regulations



- Goal-based standards will constitute a central element of a modernised regulatory framework for the maritime industry.
- By introducing goals, safety objectives and functional requirements, a consistent and transparent basis will be established for development of future regulations and rules.
- However, only risk-based ship design and approval will offer more freedom to designers selecting cost-effective solutions.
- This approach needs to be anchored within the regulatory framework (e.g. by expanding SOLAS I.5 or within a new goal-based regulation).
- GL today supports clients to implement innovative ship designs using risk-based approaches.





# Conclusions



- New rules and regulations often require additional effort to comply.
- Classification societies continuously work to ensure that new rules and regulations can be implemented effectively.
- Classification societies offer services to transform new requirements into competitive advantages for their clients.





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