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## **Research Project 599: The Human Element - a Guide to Human Behaviour in the Shipping Industry**

**Notice to all Shipowners, Operators, Managers, Agents, Insurers, Manning Agents, Ship Builders, Equipment Manufacturers, Regulators, Investigators, Training Establishments, Masters, Officers and Crew**

*This MIN expires 29 April 2011*

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### **Summary**

This Note provides information on a new publication, "The Human Element – a guide to human behaviour in the shipping industry". Available from TSO and MCA, the guide is the result of a year long research project. It explains the fundamental aspects of human behaviour and the complex interactions of human element issues in the maritime industry. It shows how the human element needs to be managed simultaneously at all levels in the industry, on board ship, within companies and amongst regulators, and it provides effective, pragmatic guidance on how these issues can be addressed.

### **1. Background**

- 1.1 Major advances in design and construction of ships and ships' equipment over the past decades have made significant improvements in safety, and analysis has shown that accidents & incidents attributable to technical failures alone are very rare. However, accidents, including major disasters, continue to occur at a high rate.
- 1.2 It is often said that 80% of accidents & incidents are attributable to the "human element", either through direct human error in the course of operations, or by failing to deal effectively with incidents once they arise.
- 1.3 Further, and perhaps less well publicised, is that almost all the remaining 20% of accidents & incidents are attributable to latent human element issues. These may be problems hidden deep within the overall system, possibly resulting from actions and decisions taken many years previously eg design of equipment, weaknesses in the Safety Management System, training issues, recruitment & manning or commercial policies & practices.
- 1.4 Analysis of casualty statistics indicates the high overall cost of the continuing accident rate, through injury or death; damage to the environment; the social and political pressure for further legislation; huge repair bills for ships; insurance claims for loss, damage or delay; serious fines and other criminal sanctions; damage to the organisation's reputation and difficulty in recruiting and retaining competent crews, all of which may seriously impact an organisation's commercial viability.

1.5 As almost all accidents can be attributed to human element issues it follows that only by correctly addressing the complexity of human and organisational factors - the “human element” – will we make significant improvements to the accident rate and take advantage of the substantial commercial, economic and environmental benefits that this would bring.

1.6 Initial research carried out by the United Kingdom in 2008 concluded that there was a strong need and appetite for comprehensive and effective guidance on human element issues within the maritime industry. As a result, a consortium of 4 United Kingdom organisations, The Maritime and Coastguard Agency, BP Shipping Ltd, Teekay Shipping Ltd and The Standard P&I Club, commissioned a full scale research project.

1.7 The results of this project are now available in the publication “**The Human Element – a guide to human behaviour in the shipping industry**”. It aims to make a clear connection between the multitude of human element issues and the business success of those who make their living from the maritime industry, whether on board ship or ashore. It is aimed at,

Owners, operators, managers and agents  
Insurers and manning agents  
Ship builders and equipment manufacturers  
Regulators and investigators  
Training establishments  
Masters, officers and crews

1.8 It explains in a single document the fundamental aspects of human behaviour; the complex interactions of human element issues in the maritime industry; and how managing the human element needs to take place simultaneously at all levels in the industry, on board ship, within companies and amongst regulators. Further, it provides effective, pragmatic guidance on how these issues can be addressed. It can be used as a cornerstone to develop effective human element policies and practices for the future across a wide range of organisations.

1.9 Printed copies of “**The Human Element - a guide to human behaviour in the shipping industry**” (ISBN 9780115531200) are available from 29 April 2010 from:

The Stationery Office Publications Centre,  
PO Box 29,  
Norwich,  
NR3 1GN United Kingdom

Telephone (Orders): 0870 600 5522  
Fax (Orders): 0870 600 5533  
Email (orders): [customer.services@tso.co.uk](mailto:customer.services@tso.co.uk)

1.9 Electronic versions are available from the UK Maritime and Coastguard Agency at:  
[human.element@mcga.gov.uk](mailto:human.element@mcga.gov.uk)

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