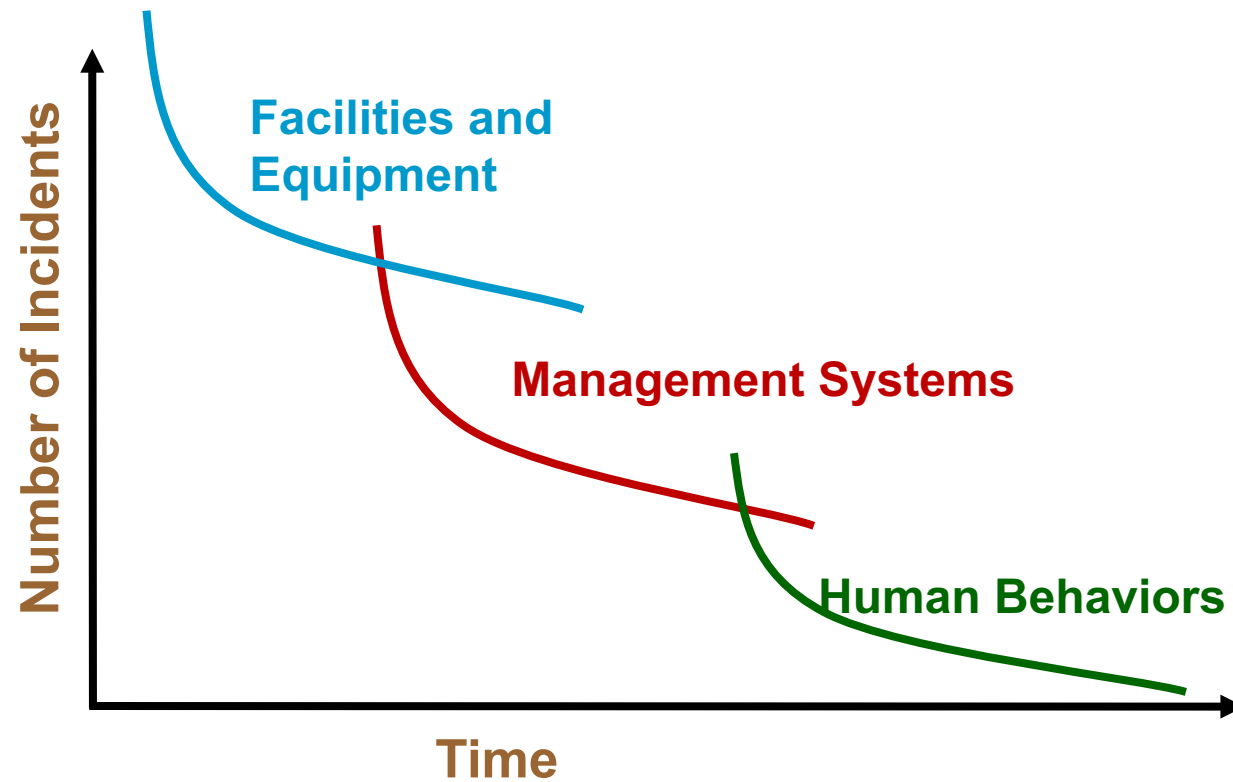


*How managers will cope
with the TMSA3
requirements*

25th April 2018



The Industry Efforts for reduction of Incidents



TMSA 1- 3 Evolution

- Vetting Inspections started in the 90's
- Initial Average No of Observations: 20
- By 2010's this was reduced to 5-6
- Signaling that The Vessel's Condition had improved
- TMSA introduced to enhance Company Systems
- TMSA 2 To improve systems
- TMSA 3 is clearly targeting Human Behaviors

Facilities and Equipment – escalation of requirements

- **Stage 1**
 - 4.1.1 Each vessel in the fleet is covered by a planned maintenance system and spare parts inventory which reflects the company's maintenance strategy.
- **Stage 2**
 - 4.2.4 The company has a formal system to develop dry-dock specifications, which involves collaboration between the vessel and shore management.
- **Stage 3**
 - 4.3.2 The company policy is to maintain an optimum spare parts inventory or system redundancy for all vessels.
- **Stage 4**
 - 4.4.1 The maintenance and defect reporting system integrates the spare parts inventory management and procurement systems.

Management Systems – escalation of requirements

- **Stage 1**
 - 6A.1.3 The company has procedures to manage the condition of mooring ropes, wires, mooring tails and joining shackles for all fleet vessels.
- **Stage 2**
 - 9.2.1 (Chevron): Safety Management System to be fully developed based on Risk Assessments.
- **Stage 3**
 - 12.3.3 The inspection process identifies weaknesses in personnel familiarity with equipment and operations.
- **Stage 4**
 - 6A.4.4 The company actively seeks out available or innovative technology to enhance safe mooring operations.

Human Behavior – escalation of requirements

- **Stage 1**
 - 9A1.2 The company safety culture encourages all personnel to identify, report and where applicable address hazards.
- **Stage 2**
 - 9A2.1 Intervention to prevent unsafe acts and unsafe conditions occurring is actively encouraged.
- **Stage 3**
 - 9A3.2 Procedures measure and compare the strength of the safety culture across the fleet to identify areas for improvement and to provide motivation to vessel personnel.
- **Stage 4.**
 - **9A4.2** Fleet safety trainers sail with the vessel to conduct training and promote the company values and safety culture.

Oil Major Specific Requirements

- **Shell: Leadership Visits – LET - Reflective Learning – Resilience**
- **Chevron:**

4.2.3 (Time charter requirement)

A procedure is in place to ensure a vessel is inspected by an appropriately qualified superintendent at least once in any 12 month period under a sailing condition to confirm adherence to company.

9a.2.1 A Stop Work Policy is in existence

2.3.2 Vessel to technical superintendent ratio is no greater than 4:1. Vessel to Marine Superintendent ratio is no greater than 8:1.

Challenges to Operators

- The need to satisfy a multitude of Interpretations with one system
 - Shell: Management Reviews
 - Total: Own Systems – Technical Bias
 - Chevron: Specific Requirements
 - Exxon Mobil: TMSA Audits on Ships
- Mesqac
- Significant Investment in Systems and Resources
- Steep learning Curve and significant investment for higher stages



PANTHEON TANKERS MANAGEMENT LTD

354 Syngrou Avenue,
17674 Athens, Greece

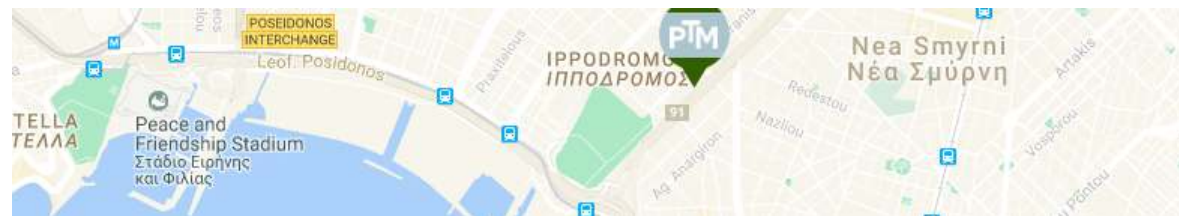
T: +30 2166004900

F: +30 2166004910

M: mail@pantheontankers.com

W: www.pantheontankers.com

Emergency phone : +30 2166004911 /999 (24hrs)





Thank you