



MARINE SAFETY MANAGEMENT SYSTEMS MANUAL

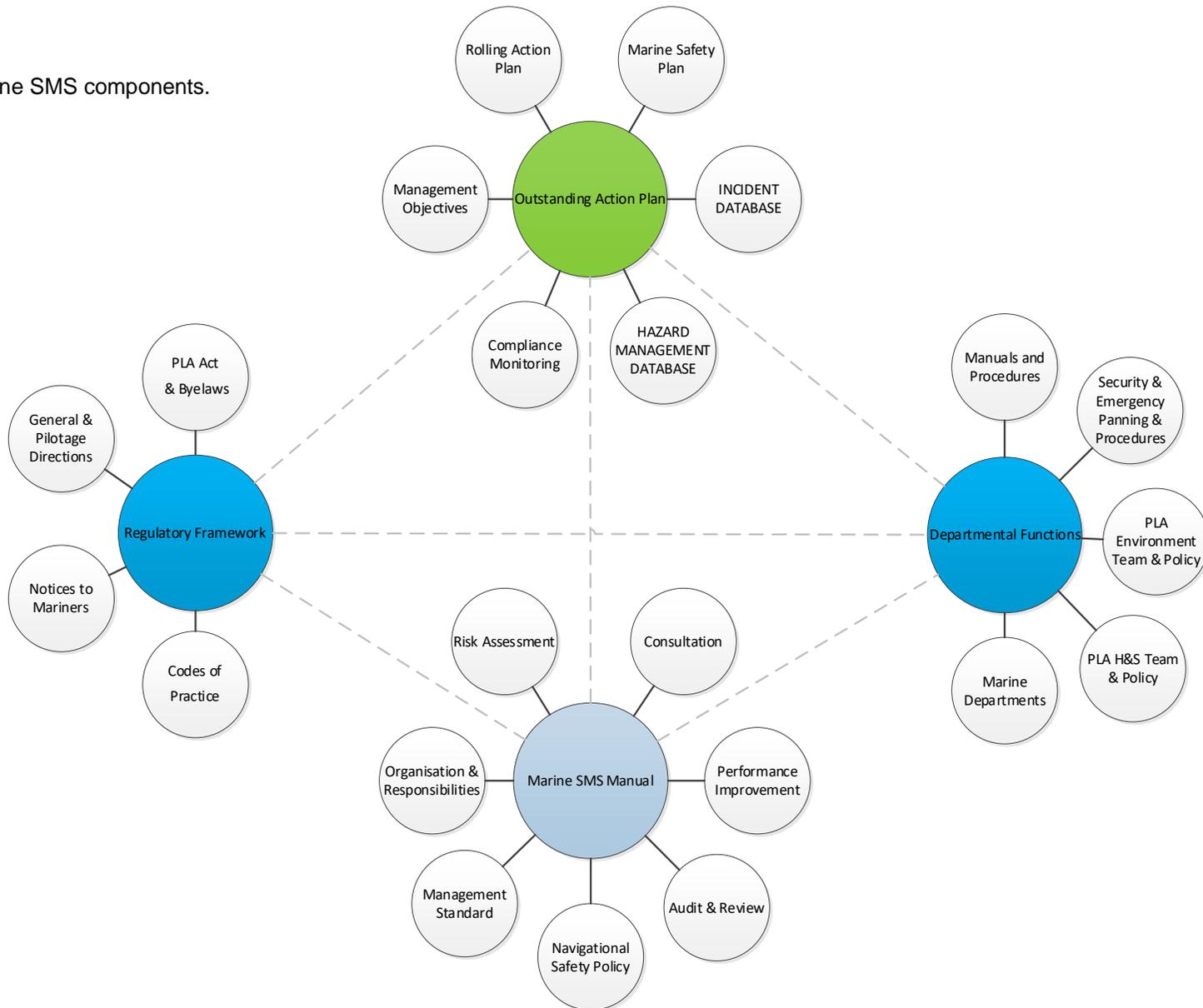
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20	Jul 16	Inclusion of the Marine SMS diagram and Hazard & Control Review Panels Terms of Reference in Annex C. Editorial amendments throughout the SMS Manual to change the name of Navigational Management Team (MMM) to Marine Managers Team (MMT).	DK	SB	07.07.16	N/A
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Components of the Marine Safety Management System

Figure 1
Overview of Marine SMS components.



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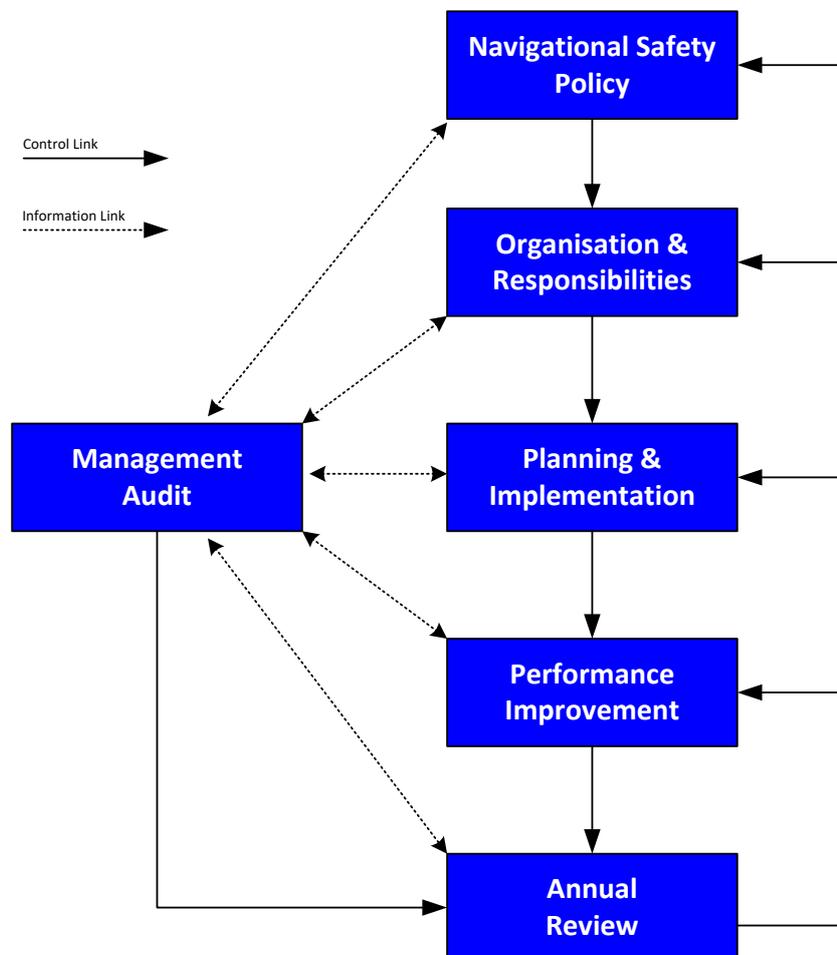
0.0 MARINE SAFETY MANAGEMENT SYSTEM PRINCIPLES

The Port of London Authority (PLA) Marine Safety Management System (Marine SMS) is designed to deliver the relevant requirements of the Port Marine Safety Code (PMSC) and is also based on principles embodied in guidance published by the Health and Safety Executive (HS(G)65).

The PLA's Navigational Safety Policy defines the organisation and arrangements that the PLA has established to monitor, promote and proactively manage the conduct of navigation and associated marine activities so that safety is enhanced.

Figure 2 shows the links between Policy, the organisational structure and the administration of the Marine Safety Management System.

Figure 2



1.0 INTRODUCTION

The provisions of the Port of London's Marine SMS are set out in this Manual. The purpose of this document is to describe, at a high level, the overall framework for the management and co-ordination of marine activities necessary for the effective facilitation of navigational safety. Based on the PLA's Navigational Safety Policy, the Manual describes primary accountability and procedures, communication and monitoring regimes. The Marine SMS arrangements referred to in this Manual comply with the requirements of the Port Marine Safety Code.

The Marine Management Team (MMT) is responsible for maintaining the design, the overall content, approval and subsequent management of the Marine SMS. See Section 3.2.4.

1.1 Scope of the Marine Safety Management System

The port's Marine SMS, as administered and managed by the PLA, applies to marine operations and activities within the PLA's area of jurisdiction in the Port of London. The scope of the SMS includes all:

- commercial shipping operations in the port, with the exception of operations that are solely the responsibility of the berth or facility and with no implications for navigational safety;
- marine leisure and sports navigational activities; and

marine operations undertaken by any support or service organisation; including ship and craft towage, pilot boarding and landing, mooring and line handling, dredging and other marine services, and the navigational activities of other regulators, the Emergency Services, Government Agencies and voluntary organisations.

1.2 Port Marine Safety Code Requirements

Marine SMS procedures and guidelines fulfil the requirements of the Port Marine Safety Code including but not limited to, the following:

- Making risk assessment and risk control the basis of all marine activities, procedures and regulations applied to or required of port users.
- Using risk assessment to identify the requirement for aids to navigation.
- Applying risk assessment to all harbour works.
- Subjecting wrecks to risk assessment and programming periodic review.
- Periodically reviewing the provision of safe anchorages.
- Maintaining systems to implement the findings of risk assessments.
- Identifying and designating safe pilot boarding and landing areas.
- Applying and adhering to current pilot transfer arrangement regulations.
- Reporting deficiencies on visiting vessels.
- Providing procedural advice for giving Directions in relation to dangerous vessels or substances.
- Regulating the use of harbour craft and ensuring powers are sufficient to govern the mooring of vessels.
- Maintaining and developing a competence based training scheme to support delivery of all marine functions. This includes cross-training with tug crews.
- Maintaining appropriate plans and procedures for emergency response and associated training\exercises.
- Using verification\audit systems.

1.3 System Components

The Port of London's Marine SMS focuses on the operational and administrative output of the following marine departments:

- Harbour Masters
- Pilotage;
- Vessel Traffic Services;
- Hydrographic including marine conservancy; and
- Marine Services.

It includes the following components:

- Navigational Safety Policy (as well as the PLA's Environment Policy and other policies as appropriate)
- Marine Management Team
- Marine Conservancy Team
- Marine SMS Manual
- Risk Assessment and Risk Control Measures
- Pilotage Training Panel
- Hazard Management Database
- Incident Database
- Marine Outstanding Action Plan
- Staff Involvement and Consultation
- Navigation Risk Assessment Working Groups (as required)
- Pilotage Management Committee
- River User Consultative Forums (RUCF)
- PLA Harbour Masters' Recreational Navigation Group (PHRNG)
- Records and Controls
- Audit and Review

Risk Control Measures are broad in nature, allowing for departmental ownership and effective analysis. This is designed to allow easy identification of any failure points and a clear route to correction, starting with departmental representation at reviews on an as required basis.

1.4 Applicable National and Local Legislation

The following is a list of the main National and Local legislation applicable to the PLA's Management of Marine Activities:

National Legislation
<u>Harbours Act 1964</u>
<u>Harbours, Docks and Piers Clauses Act 1847</u>
<u>Merchant Shipping Act 1995</u>
<u>Marine Safety Act 2003</u>
<u>Marine Navigation Act 2013</u>
<u>Dangerous Vessels Act 1985</u>
<u>Pilotage Act 1987</u>
<u>Aviation & Maritime Security Act 1990</u>
<u>Railways and Transport Safety Act 2003</u>
<u>Health and Safety at Work Act 1974</u>
<u>Civil Contingencies Act 2004</u>
<u>Manslaughter and Corporate Homicide Act 2007</u>
<u>Town and Country Planning Act 1990</u>

<u>Dangerous Goods in Harbour Areas Regulations 2016</u>
<u>The Merchant Shipping (Vessel Traffic Monitoring and Reporting Requirements) Regulations 2004</u>
<u>The Merchant Shipping (Accident Reporting and Investigation) Regulations 2012</u>
<u>Merchant Shipping (Oil Pollution Preparedness, Response and Co-operation Convention) Regulations 1998</u>
<u>The Merchant Shipping (Alcohol) (Prescribed Limits Amendment) Regulations 2015</u>
<u>The Port Security Regulations 2009</u>
<u>The Ship and Port Facility (Security) Regulations 2004</u>
<u>Conservation (Natural Habitats &c) Regulations 1994</u>
Local Legislation
<u>Port of London Act 1968 (As amended)</u>
Codes
<u>The Port Marine Safety Code</u>
<u>ISPS Code 2004</u>

Locations of all Harbour Revision Orders:

(Internal)

[Harbour Revision Orders](#) (link)

(External)

[Harbour Revision Orders](#) (link)

2.0 POLICY

The Navigational Safety Policy sets out the PLA's intentions and commitment to safety. It also describes the organisational responsibilities and arrangements established to ensure that the Policy is implemented. The Policy contributes to operational objectives and states the PLA's commitment to meet its legislative responsibilities. The fundamental objective of the Marine SMS is to demonstrate the consistent application of this Policy.

PLA Policies which influence the management of marine safety are also identified in [Annex A](#)

2.1 Policy Development and Communication

The Navigational Safety Policy was developed by the Marine Management Team (MMT) and subsequently approved by the PLA Board. Consultation is included within this Policy, the application of which further aids the development of the Marine SMS, ensures the involvement of all port users and stakeholders, and contributes to compliance with the Port Marine Safety Code (PMSC).

The Navigational Safety Policy has been communicated to PLA staff, port users and interested parties through the PLA website and Staff Intranet. Copies of the Policy are freely available and there is a continuing process of briefing and updating information with regard to marine safety.

2.2 Purpose and Use of the Policy

The primary purpose of the Navigational Safety Policy is to provide an overall standard for marine operations throughout the Port of London. It also provides a reference point for a variety of operational decisions including the selection of resources, the design and implementation of safe working practices.

2.3 Commitment Statement

The PLA Board, as "Duty Holder" under the PMSC and the body with ultimate responsibility, has committed itself to comply with the requirements of the PMSC furthermore; it is committed to ensuring that adequate resources are available to discharge its navigational safety obligations.

One purpose of this document is to show a link between the policies set by the Board and the management arrangements, controls and provisions that discharge those policies.

The Board (as Duty Holder) has confirmed and continues to confirm, as required, to the Maritime & Coastguard Agency, compliance with the requirements of the PMSC.

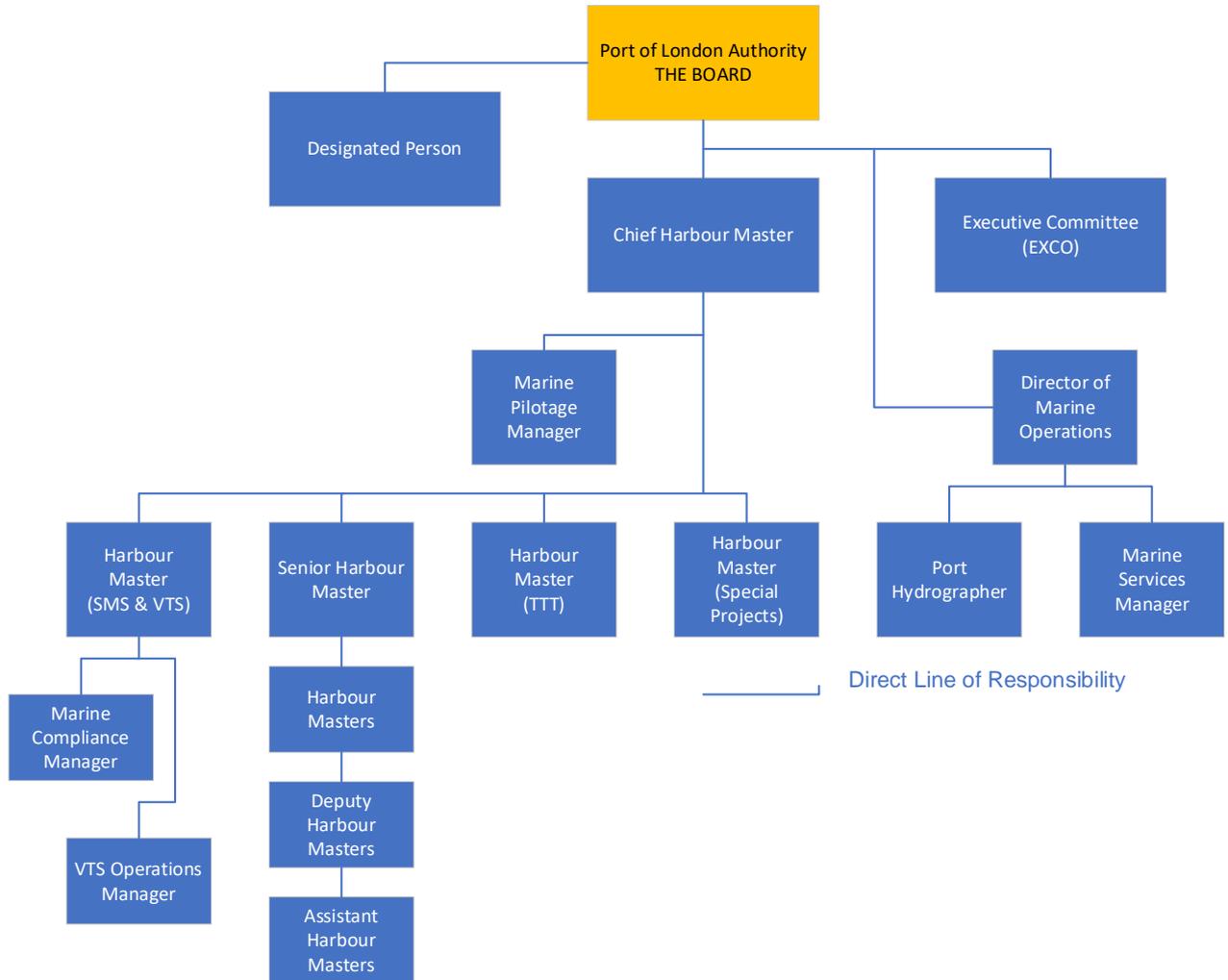
2.4 Policy Review

The Marine Management Meeting (MMM) undertakes a formal review of the Navigational Safety Policy on a 3-yearly basis or more frequently as circumstances dictate.

3.0 ORGANISATION

3.1 Functional Structure for the Management of Marine Safety

Figure 3



3.2 Responsibilities

3.2.1 The Board

In respect of Marine Safety, the PLA Board:

- Discharges the duties and exercises the powers given to it, both directly and by delegation, as it considers appropriate as permitted by the Port of London Act 1968 (as amended);
- Discharges the function of "Duty Holder" as defined in the PMSC, for which they are collectively and individually responsible, by ensuring compliance with the PMSC, and the safe management of navigation;
- Approves the strategy, policies, plans and budgets of the PLA together with its strategic objectives; and
- Reviews the performance of the PLA against its strategic and operational objectives, plans and budgets.

- Accountability for compliance with the Code cannot be delegated on the grounds they do not have particular skills.

Note: Delegation by the PLA Board is addressed in the Delegation of Authority document maintained by the Secretary to the Board (See [Annex C](#)).

3.2.2 Executive Committee (ExCo)

For the purpose of the Marine SMS, ExCo is responsible for co-ordinating cross-departmental projects, which may include or bear upon marine safety. It is also responsible for budget preparation and resource planning. The Terms of Reference for ExCo are:

- To provide a forum for discussion of cross-departmental issues so as to provide advice to the Chief Executive and to take decisions as appropriate.
- To set the scope and general principles in respect of cross-departmental projects and subsequently to monitor and co-ordinate their implementation.
- To evaluate and develop draft strategies, policies, plans, objectives and budgets, and where appropriate, recommend them to the PLA Board for approval.
- To monitor PLA performance against its strategic and operational plans, budgets, objectives, and the achievement of the PLA's performance measures, and to co-ordinate such actions as may be necessary from time to time to ensure the achievement of these plans, budgets and objectives.

Note: To contact the Board or ExCo, email ExcoSecretaries@pla.co.uk

3.2.3 Chief Harbour Master

The Chief Harbour Master is appointed by the PLA Board to discharge the statutory role of harbour master in accordance with the PMSC. He is responsible for delivering the Navigational Safety Policy, authorising the initiation of prosecutions and keeping the Chief Executive advised and informed.

This role is key to ensuring that the Marine SMS fulfils the marine aspects of the PLA's statutory duties and relevant non-statutory obligations.

3.2.4 Marine Management Meeting (MMM)

The MMM Terms of Reference are included at [Annex B](#):

The Marine Management Meeting comprises:

- Chief Harbour Master
- Harbour Master
- Harbour Master (Thames Tideway Tunnel)
- Harbour Master (SMS & VTS)
- Port Hydrographer
- Director of Marine Operations
- Marine Services Manager
- Pilotage Operations Manager
- Marine Pilotage Manager

MMM members are individually responsible for the management and function of their respective departments. The statutory and regulatory marine responsibilities

delegated to MMM members and others by the PLA Board are contained in the Marine Delegation of Authority document – see Appendix C.

Other responsibilities and duties are contained within individual Job Descriptions, which are signed as an acceptance and undertaking of those responsibilities, by the individuals concerned.

3.2.5 Designated Person (DP)

In meeting its obligations under the PMSC, the PLA Board has appointed a 'Designated Person', who maintains a right of direct access to the Board.

The role of the 'Designated Person' is to:

- Provide independent assurance to the PLA Board that the PLA has an effective and appropriate Safety Management System.
- Provide the PLA Board with independent and professional advice regarding the PLA's overall compliance with the requirements of the Port Marine Safety Code.

The Designated Person for the PLA can be contacted as below:

DP.London@abpmer.co.uk - 023 8071 1892 or 023 8071 1889

Designated Person (PMSC) 'Port of London Authority'

ABPmer

Quayside Suite | Medina Chambers | Town Quay | Southampton | SO14 2AQ

Web: www.abpmer.co.uk | www.portriskmanagement.com

3.2.6 Harbour Master (SMS & VTS)

The Harbour Master (SMS & VTS) maintains an overview of the Marine SMS and is responsible for the effective functioning of the SMS as a whole. He is also responsible for the overall distribution and dissemination of this Marine SMS Manual to PLA staff and external bodies/port users. The provision of both of these functions are supported by the Marine Compliance Manager

The Harbour Master (SMS & VTS) is also responsible for the management and provision of the Vessel Traffic Service, supported by the VTS Operations Manager.

Note: To contact the Harbour Master (SMS & VTS), email VTSenquiry@pla.co.uk

3.2.7 Harbour Masters

Harbour Masters are responsible for the safety of navigation throughout the river and are supported by Deputy Harbour Masters.

They are responsible for the management of activities on the river, the removal of hazards to navigation, enforcement and regulating the movement of dangerous vessels.

They carry out investigations of all reported marine incidents in compliance with the Navigational Incident Investigation Procedure.

3.2.8 Harbour Master – Thames Tideway Tunnel

The Harbour Master (Thames Tideway Tunnel) looks after the major infrastructure project that is Thames Tideway Tunnel, which involves numerous construction sites in the river, and reports directly to the Chief Harbour Master.

The responsibilities of the Harbour Master (Thames Tideway Tunnel) include the review and assessment of the project's River Works Licence applications and Marine Operations, including non-routine tows, as well as being the point of contact for navigational matters concerning the project.

The Harbour Master (Thames Tideway Tunnel) works closely with the Harbour Masters, liaising on the project's progress and potential cumulative impact of the project with other activities on the river.

The Harbour Master maintains overall responsibility for the safety of navigation.

3.2.9 Departmental Managers

Departmental Managers, including the Marine Services Manager, are responsible for the development and implementation of appropriate procedures and guidelines to contribute to the delivery of the Marine SMS and other supporting policies within their operational area. In all cases, relevant staff and junior managers should be fully involved and be able to contribute to such development.

In particular, within this overall remit, they are responsible for:

- Identifying and proposing solutions/risk control measures to mitigate any hazard to safe navigation;
- Appropriate training of assigned personnel; and
- Maintaining overall navigational safety awareness.

3.2.10 Navigational Safety System Coordinator

The NSSC is responsible for the maintenance and administration of the Hazard Management database - the navigation hazard and risk control management system, and the Navigational Incident database.

Note: To contact the Navigational Safety System Coordinator or the SMS Team, email safetymanagement@pla.co.uk

3.3 External Involvement and Responsibilities

3.3.1 Navigational Risk Assessment Working Group

Navigational Risk Assessment Working Groups (NRAWG) consist of appropriate PLA marine staff, and other relevant interested parties practising mariners whose knowledge and experience is pertinent to the nature of any particular hazard, risk control measure or new circumstance which such a panel is convened to consider. Following any incident or change in circumstances the Harbour Master or MMT will consider the need to establish a NRAWG.

The Harbour Master will normally request the involvement of a range of practitioners, river users and specialists, relevant to the matter to be considered. The Group may meet only once, or more times as may be required to meet its Terms of Reference.

NRAWG Terms of Reference will be set by the PLA's Marine Management Team (MMT) and each NRAWG will be asked to submit its recommendation to the MMT for consideration by the PLA and thence to the Hazard Review Panel if appropriate.

NRAWGs have been held to consider a wide range of issues including:

- Post incident investigation
- Un-scheduled review of navigational hazards
- Development of codes of practice or operational guidance
- Other specific matters such as the review of the impact of navigational safety of a new trade or issues surrounding navigation in a particular area, such as through bridges or the transit of large vessels through the Thames Barrier.

3.3.2 **Berthing Operations Working Group**

The Berthing Operations Working Group regularly reviews all existing, relevant marine operational procedures and practices, proposing improvements and refinements as required.

The group contributes to the formal three-yearly review of the PLA Codes of Practice for the Safe Mooring of Vessels on the Thames and Ship Towing Operations on the Thames. It also reviews berthing operations incidents as requested, making recommendations as necessary.

3.3.3 **River Users Consultative Forums**

The PLA has a long established liaison with port users. The two River Users Consultative Forums (Upper and Lower/Estuary) play an important role in monitoring the performance of the Marine SMS and in reviewing relevant SMS issues.

The Forums have the following Terms of Reference, acting as:

- A forum for raising and discussing issues, including safety, relating to the tidal Thames, relevant to the PLA;
- A vehicle for consultation with the PLA, which contributes to meeting the requirements of the Port Marine Safety Code and the supporting Guide to Good Practice;
- A sub-committee of the South East District Marine Safety Committee, in continuation of the role of the former River User Liaison Groups.

Each Forum normally meets on a six-monthly basis, but additional meetings may be called as circumstances dictate. The Harbour Master chairs the Upper Forum and Lower/Estuary Forums.

3.3.4 **PLA Harbourmaster's Recreational Navigation Group (PHRNG)**

The PLA has a long established liaison with Recreational river users. The PLA Harbourmaster's Recreational Navigation Group (PHRNG) provides recreational river users with a forum to discuss matters concerning recreational safety on the tidal Thames to the west of Crossness.

The PHRNG normally meets at least twice in any calendar year (usually Spring and Autumn), but additional meetings may be called as circumstances dictate and is chaired by Harbour Master.

3.3.6 **EMERGENCY PLANNING TEAM**

Refer to Annex B

4.0 IMPLEMENTATION

4.1 Marine Safety Objectives

As part of its duties and responsibilities the PLA annually reviews its Strategic Objectives. To support those Strategic Objectives, the MMT also sets individual Departmental Objectives, which include the ongoing maintenance and development of the Marine SMS. In general, these objectives seek to:

- Reduce risks to as low as is reasonably practicable.
- Ensure all reasonably practicable steps are taken to identify the hazards and risks arising from operational activities on the Thames.
- Ensure conformance with our navigational safety and marine policies, associated operating controls and applicable port and marine legislation and non-statutory obligations.
- Periodically review data gathered from audits, inspections, incidents and any concerns raised to evaluate and determine where improvements and changes need to be made.
- Implement employee competence training and Marine SMS awareness programmes.
- Encourage employees to become more involved and participate in continually improving our overall marine safety performance.
- Facilitate port user involvement in the maintenance of the Marine SMS and the overall improvement in the provision of marine safety.
- Communicate PLA's ongoing efforts and achievements in facilitating navigational safety on the Thames to all stakeholders.
- Review the effectiveness of and continually improve the PLA Marine SMS.

4.2 Initial Risk Assessment and Outstanding Action Plan

The report of the PLA's initial PMSC risk assessment, undertaken between October 1999 and May 2001, provided recommendations which, together with subsequent recommendations arising from both proactive and reactive reviews of hazards and risk control measures, formed the initial Outstanding Action Plan.

Section 4.1 lists the generic marine safety objectives on which the plan is based. The Outstanding Action Plan reflects these objectives and incorporates the outcome of subsequent risk assessments, hazard review panel recommendations and safety associated recommendations, as approved by the MMT.

The overall purpose of the Action Plan is to collate all actions requiring implementation, to identify the person responsible, and to set target completion dates. The Plan also includes those departmental managers' targets affecting safety and arising from the annual review process. This provides a tool for continuous monitoring by management of all objectives and recommendations requiring implementation.

In summary, the primary objective of PLA's Marine SMS is the implementation of the Navigational Safety Policy. This is achieved by:

- Providing the organisation, arrangements and resources to manage marine activities safely;
- Recognising that people are PLA's most important asset; and
- Ensuring that due importance and priority are accorded to navigational safety issues.

5.0 MARINE SMS DATA

5.1 PLA Hazard Management Database

The Hazard Management Database contains comprehensive details of all identified navigational hazards, together with the associated risk control measures employed to mitigate those hazards. All hazards are maintained within the system and are scored based on the outcome of the risk assessment process. These scores will change with time as the hazards and risk controls continue to be reviewed and reassessed.

The archive also includes an audit record, which documents the outcome of the scheduled proactive annual hazard review process, any incident review, and the addition of any new risk and its associated assessment. Recommendations or actions from the reviews are fed into the Outstanding Action Plan via the MMT.

The database is structured into 4 risk assessments; Estuary, Lower District, Middle District and Upper District. This is largely due to the differing types of traffic in these areas, as well as the difference in consequences of certain incidents.

Each Risk Assessment contains a list of Hazard Assessments. These are created by combining risks and hazards. Risks are identified by the differing vessel types operating on or visiting the river. Hazards are identified by the different potential incident types these vessel types are susceptible to. For example, one Hazard assessment may be entitled 'Passenger Class V – Contact'.

This structure also allows for greater correlation between the Risk and Incident Management databases.

5.1.1 All Vessels Risk Type

Multiple vessels can often be exposed to the same hazards, with the same or similar potential causes and consequences. For this reason, each Risk Assessment in the database will contain Hazard Assessments using the Risk/Vessel Type 'All Vessels'. This assessment will cover off the hazards applicable to all vessels irrespective of type/class when its deemed the causes and potential consequences are also comparable. Vessels presenting unique hazards, or which due to unique circumstances would present significantly different consequences when exposed to a hazard, are assessed individually.

5.2 PLA Navigational Incident Database

The Navigational Incident database holds the details of all reported marine safety incidents and other occurrences having significance to the maintenance of navigational safety. The inputs are provided by the Harbour Master.

The day to day maintenance of both the Hazard Management and Incident databases is the responsibility of the NSSC. In particular, the job-holder:

- Maintains, administers and interprets the Hazard Management database to ensure effective support to the marine departments;
- Maintains, administers and interprets the Navigational Incident database to ensure the effective recording, availability and archiving of marine incident information; and
- Constructs and presents Hazard Management and Navigational Incident information in reports as required and in an effective and appropriate format,

such that the overall navigational safety performance of the port may be reviewed and assessed.

Once a record has been initiated, additional information is included in respect of the outcome of the Harbour Master's initial investigation, and subsequently details of any follow-up disciplinary action and/or prosecution. The Harbour Master's findings and recommendations (if any) of his navigational safety investigation are also recorded in respect of the incident's impact on the Marine SMS.

The Navigational Incident Database and Hazard Management Database are both contained within the same platform. This allows effective cross-referencing of the two systems, linking hazards to incident reports and vice-versa.

This means when hazards are reviewed, a full history of incident records inform the review process, allowing for better assessment of likelihood and impact.

6.0 RISK CONTROL MEASURES

Control Measures within the Risk platform are pre-defined and are broadly generic. An approval process has been established for adding to the controls library.

This set up allows for better analysis of control measures in order to identify where they may be failing.

Control measures are owned by departments rather than individuals. This is so that where control measures are identified to be failing, department representatives can be invited to a review panel meeting to establish measures to enhance the control measure or establish additional controls to mitigate the failures.

6.1 Departmental Risk Control Functions

The following is a brief overview of the risk control aspects of departmental functions. This is intended and an overview only and is not limiting or exhaustive

6.1.1 Marine Conservancy

The Port Hydrographer has established an effective hydrographic survey programme for the tidal Thames to establish and confirm the depths of channels and fairways, and to inform the appropriate Harbour Master and port users of any shoaling, obstructions and/or new wrecks identified during survey work.

Tide gauges are maintained throughout the Port to provide real time observations for safety of navigation and records on which to base predictions.

All hydrographic operations are managed through guidance contained in the Hydrographic Manual and international best practice.

6.1.2 Pilotage

Pilotage matters are the responsibility of the Chief Harbour Master, who shall determine, by a continual process of risk assessment, the identification of safe boarding and landing areas and the safe transfer of pilots as required by the appropriate current regulations. The pilotage service provided is administered through best demonstrated practice and associated operational instructions and guidelines.

The Chief Harbour Master, through the Marine SMS, (risk assessment) determines the compulsory pilotage requirement in the Port.

6.1.3 Vessel Traffic Services

Vessel Traffic Services (VTS) are provided throughout and beyond the PLA port limits. London VTS, through the Port Control Centre (PCC), Gravesend and the Thames Barrier Navigational Centre (TBNC), Woolwich monitors and manages vessel traffic within two separate areas of responsibility. These are:

- PCC Outer limits to Crayfordness
- TBNC Crayfordness to Teddington

The Harbour Master (SMS & VTS) is responsible for the effective management of PCC and TBNC.

Guidance and instruction for operational and maintenance aspects of VTS, and the training and authorisation of VTS staff to internationally recognised standards, are addressed in the VTS Manual. Certain hardware assets owned by the VTS function may be listed as separate controls where deemed appropriate,

6.1.4 **Harbour Patrol**

A regular harbour patrol is maintained throughout the port to the west of Southend with supporting administrative and regulatory functions, to assist in the effective regulation and enforcement of the Navigational Safety Policy.

6.1.5 **Safety Management Systems**

This central support function includes the maintenance of an appropriate regulatory framework, including the revision of byelaws, directions; and the publication and promulgation of navigational information and advice e.g. Notices to Mariners etc.

6.1.6 **Marine Services**

6.1.6.1 **Aids to Navigation (AtoN)**

The *Port of London Act 1968* and the *Merchant Shipping Act 1894* sets out the PLA's responsibilities to install and maintain local lighthouses, buoys, or beacons (Aids to Navigation- AtoN.)

The Marine Services Manager is responsible for the provision and maintenance AtoNs between Sea Reach No.1 and Teddington.

Note: Maintenance of other aids to navigation, including lights on berths, is the responsibility of other organisations. The PLA monitors the reliability and availability of all such aids to navigation as the local lighthouse authority. Trinity House is responsible for the maintenance of aids to navigation within port limits to the east of Sea Reach No.1.

6.1.6.2 **Safety of Navigation & Protection of the Environment**

Marine Services additionally provides the Harbour Masters with a limited capability to remove wrecks and obstructions and oil spill clearance. Such operations are managed through guidance contained in the Marine Service Manual, Oil Spill Contingency Plan and associated procedures.

6.1.7 **Emergency Preparedness and Response**

The PLA has established emergency response plans and procedures to address specific marine emergency incidents. Training exercises and seminars are programmed on an annual basis to familiarise and update staff on these emergency procedures and to exercise individual response actions. Appropriate Staff training and emergency exercise records are maintained.

The PLA's statutory responsibilities and functions with regard to contingency management and emergency planning will be undertaken by the combined efforts of the marine departments, through a collective Emergency Planning Team, which meets periodically or as required.

The Emergency Planning & Marine Compliance Officer holds the nominated PLA Emergency Planning Officer post and leads on the management and administration of PLA Emergency Planning functions. The Emergency Planning & Marine Compliance Officer is supported in this role by the Marine Compliance & Emergency Planning Officer.

The provision of a central business continuity oversight capability and business continuity management is delegated to individual departmental managers.

The PLA is a Category 2 Responder under the Civil Contingencies Act 2004 and has statutory obligations under various legislation for the development and maintenance of emergency plans and procedures.

6.2 **SOSREP**

SOSREP is the Secretary of State's Representative for Maritime Salvage and Intervention, who is appointed under UK legislation to take control at salvage incidents where there is a threat of significant pollution of UK waters.

During such an incident SOSREP has powers to give statutory directions to the shipowner, master, pilot, salvor or harbour master. SOSREP is attached to the MCA, but during an incident will usually be based near the scene so that he can liaise with all the representatives of the concerned parties.

6.3 **Environmental Management**

PLA maintains an Environmental Policy, together with effective procedures and control measures designed to ensure that the potential impact on the environment is fully considered when planning or approving commercial and recreational activities within the port.

The PLA's Environmental Policy can be found on the [PLA Website](#).

In addition to its general environmental responsibilities, the PLA has duties to conserve and enhance biodiversity within the Port of London under several pieces of legislation.

The relationship between safety of navigation, port development and nature conservation must be managed with care to allow the delivery of potentially conflicting objectives and to ensure compliance with the PLA's statutory duties and environmental responsibilities.

Building upon existing policies and initiatives, the PLA's Conservation Management Framework (CMF) is intended to facilitate this aim. It reviews the legislative and policy background to nature conservation within the Port of London, describes the main biodiversity resources and sets out actions and recommendations for reconciling potential conflicts during the operation of the port in normal and emergency conditions.

The CMF has been developed under a partnership with the Royal Society for the Protection of Birds. The PLA and the RSPB entered into a partnership agreement on 1 April 2008, with a view to working together to share expertise and understanding, to resolve potential conflicts and to maximise opportunities for enhancing nature conservation in the Port of London. A member of the RSPB's South East England Regional Management Team was seconded for fifty days to work with the PLA's River Regime and Environment section, and the CMF is a key product of that secondment.

The PLA's Conservation Management Framework is available to view online:
<http://www.pla.co.uk/Environment/Conservation-Management-Framework>

6.4 Vessel Operational Standards

Introduction

The PMSC requires the PLA to manage marine operations and regulate navigation within the port so as to reduce the risk of marine accidents and incidents to a level where the risks are as low as reasonably practicable (ALARP). There are many component parts to this process, including the risk assessment process itself, which identifies active risk control measures such as the provision of Pilots, VTS services and up to date hydrographic information.

An important component part of this system is that vessels navigating the port, whether subject to pilotage or not, are maintained to appropriate standards, and operated in a competent manner commensurate with the relevant national and international legislation. Unfortunately, this is not always the case.

Thus it is incumbent on the PLA to put in place checks that vessels are compliant with (for example) the ISM Code, and that their method of operation, state of equipment or manning competencies do not compromise the ALARP levels already arrived at by risk assessment. This is also something that has been promoted by the MAIB in accident reports.

There is no guarantee that a compliance system can be 100% effective, however we need to take every reasonable step to try and reduce the chances of a sub-standard ship increasing the level of navigation risk.

Compliance Measures

The PLA has therefore put in place a series of checks, triggers and reports, which attempt to confirm, as far as possible, the compliance of vessels entering or leaving the port limits.

These measures include:

- PISCES – an 'end to end' port services system – one benefit of which is to improve accuracy of Agent's reported information.
- The compliance statement required by General Directions – vessels are asked to confirm a number of things, including:
 1. Charts and Navigational publications up to date;
 2. A Port Passage Plan prepared;
 3. The vessel is compliant with ISM code or, no deficiencies/defects in respect of crew, navigational equipment, propulsion and manoeuvring machinery;
 4. Arrangements have been made to provide appropriate mooring assistance at the intended berth.
- VTS monitoring of ship passages – particularly self takers.
- Effective bridge resource management and appropriate support for the embarked pilot.
- Harbour Master, Vessel Licensing or Marine River Inspector inspection.
- Referral for MCA or Flag Port State Control inspection.
- Compliance with relevant port security requirements (in conjunction with individual port facilities).

This vessel compliance initiative is integral to and supports the PLA's Enforcement and Prosecution Policy. The measures adopted are subject to regular review and revision in the light of experience.

7.0 SYSTEM OPERATION AND CONTROL

7.1 Identification and Assessment of Navigational Hazards

The identification and assessment of navigational hazards is central to the effective maintenance of the Marine SMS. The PLA uses a Hazard Management database as the basis for its continuing review of both new and existing hazards and their preventative control measures.

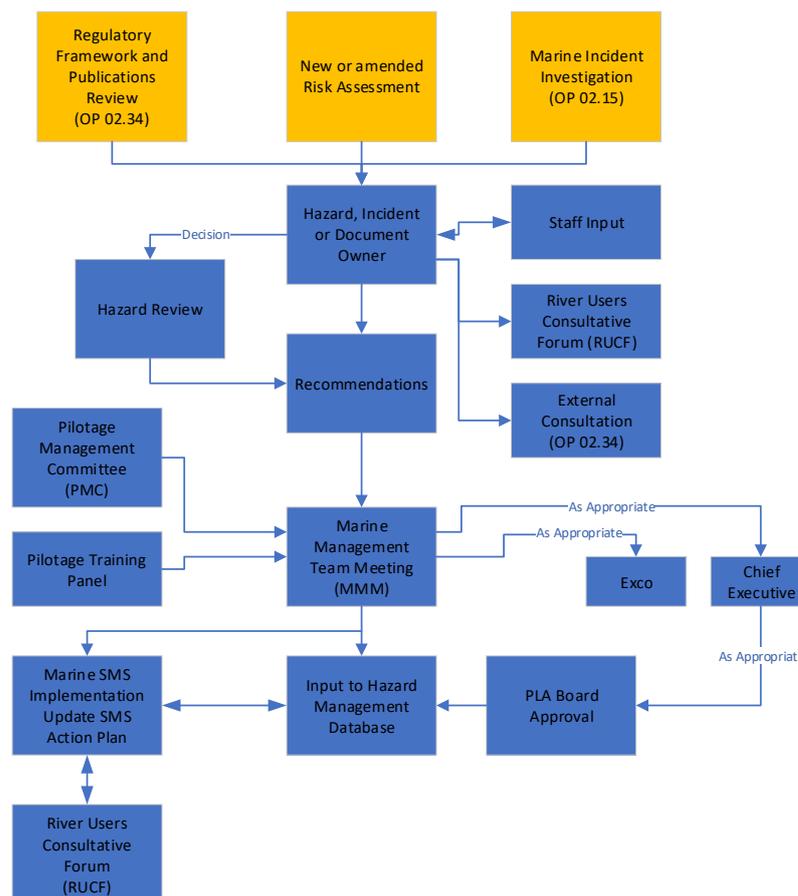
In reviewing identified hazards and risk control measures PLA management will involve PLA marine staff and practising port users as appropriate. It may also, on occasion, involve external specialist consultants.

The review of hazards and control measures are prompted by three circumstances:

- Planned, periodic, formal review of established hazards and risk controls, initiated by the Hazard Management software and reinforced by the SMS department;
- Review of hazards and associated risk controls following an incident; and
- The identification and assessment of any potential hazards arising from changes to circumstances including the introduction of a new or change to a trade and/or marine operation.

The process used to implement, modify or develop the Marine SMS is shown in Figure 4 below.

Figure 4
Marine SMS Review Process



7.2 Hazard Assessment and Review Process

Within the scope of the Port's Marine Safety Management System, a Hazard Review Panel can be convened at any time to provide expertise and advice, supplementing a robust review process for all hazards and controls that are identified within the Port's Hazard Database, on behalf of the Duty Holder (the Board) of the Port of London Authority.

Reviews can take several different formats dependent on the motivating factor. Regardless of the format, each review shall:

- Provide a robust review of any hazards being assessed.
- Assess whether existing hazards and control measures for the assessments being reviewed are 'fit for purpose' and if not, amend, delete or establish new ones.
- Ensure that hazards, or changes to the hazards and control measures identified outside of routine Hazard Reviews are fed into the review process.

7.2.1 Annual Reviews - Proactive

The Risk Management Platform automatically schedules a review date of precisely 1 year after a Hazard Assessment has been published. This is also actively monitored by the SMS department to ensure the annual reviews are taking place.

These reviews will be predominantly desk based unless the reviewer believes a more enhanced review is required. At this point a panel of relevant stakeholders will be convened for a Hazard Review Panel..

Whether the review is desk based or a panel is convened, any changes should be noted within the review notes field of the hazard assessment form. The Marine Compliance Team should then be advised that changes have been made. They will electronically forward a copy on to MMM members for comment.

When convening a Hazard Review Panel, the Harbour Master must identify areas of concern, particularly in relation to causes, consequences and controls, and ensure that appropriate representatives with relevant experience and expertise are invited to attend.

An annual Hazard Review Panel meeting takes place to assess those hazards that have had serious/very serious incidents during the year, analyse trends, scrutinize the top 5 hazards and assess the progress of SMS recommendations and actions in the previous year, in relation to the hazard database. Changes to controls are identified in order to support the hazard review process in the following year.

7.2.2 Post-Incident Reviews - Reactive

Following a marine incident, the Harbour Master will undertake an initial investigation. For more significant incidents a structured investigation process has been agreed to identify the contributing causal factors. This will establish whether there has been a failure to comply with PLA regulations or internal procedures, and whether further regulatory action is warranted.

The Harbour Master will also investigate the circumstances of the incident from a Marine SMS perspective and establish whether there is a need to review the relevant hazard (linked to the incident within the database) and its associated control measures. This review may involve appropriate staff and practising river users and,

dependent upon the nature and outcome of the incident, the Harbour Master may convene an enhanced review panel.

Any amendments to Hazard Assessments as an outcome of a review process are reported to MMM members for comment through the Marine Compliance department as in 7.2.1.

7.2.3 **New Risk Assessments**

Whenever circumstances change to introduce activities into the port or to develop existing activities, which are outside the existing scope of the Marine SMS, the Harbour Master will, in full collaboration with the relevant stakeholders, undertake a risk assessment of the intended operation. This process is likely to include the formation of a Review Panel – the outcome of which is fed into the hazard review process.

7.2.4 **Monitoring**

The Marine Compliance department are responsible for maintaining oversight of the Risk Assessment at review process and maintaining an auditable record of changes to these assessments.

The Hazard owner, when making changes, should note them in the review notes field of the hazard assessment form. The Marine Compliance department should then be advised that changes have been made, who will then electronically forward a copy on to MMM members for comment. It is the Marine Compliance departments responsibility to ensure these changes are logged and a copy of the modified assessment is downloaded from the Risk Management Database and saved.

7.2.5 **Marine SMS Recommendations**

Any recommendations arising from the deliberations of the Harbour Master and their staff or a Hazard Review Panel will be passed to MMM for consideration and approval at the next scheduled meeting. Following such approval, any new or revised operational guidance will be put in place as required, accompanied by training as necessary. Planned implementation will be recorded in the Outstanding Action Plan and the completed hazard assessment published in the Hazard Management Database.

ExCo will be informed, as appropriate, of plans to develop or introduce new risk controls, together with any budgetary implications. Where appropriate, approval for change will be underpinned by a PLA Board debate and decision.

7.3 **Risk Assessment Standards**

7.3.1 **Methodology**

The general risk assessment process used is based on that adopted by the International Maritime Organisation (IMO). This formal approach involves the following five sequential assessment stages, applied in appropriate depth:

- **Data gathering and familiarisation**
Review of the existing management structure, risk control arrangements, policies, procedures and operational functions.
- **Hazard Identification**
Identification of potential hazards and mapping of existing control measures.
- **Risk Analysis**

Consideration of the likelihood of identified hazardous incidents and their associated potential causes and consequences, including prioritising of their risk factors.

- **Risk Assessment**

Comparison of risk factors with effectiveness of existing risk control arrangements, and subsequent determination of additional control measures.

- **Risk Control**

Judgement and endorsement of specific control measures to be implemented and managed through the Marine SMS.

7.3.2 Risk Level Criteria

The resulting risk level from each identified hazard is determined by numerically comparing the potential severity of the consequences (against life, the environment, property and the Port) and the likelihood of that hazard occurring.

Hazards are then ranked according to their numerically scored total risk level. It is the principle aim of the ongoing hazard review process to actively manage the risk control measures associated with each hazard and attempt to reduce the level of risk and therefore the ranked score, to as low as reasonably practical (ALARP) at each review.

There is no predefined score for ALARP, as it is recognised this will vary depending on the Hazard being assessed. When a hazard has been reduced to ALARP, the Hazard owner, with the support of a review panel where appropriate, is responsible for determining whether the resultant score is low enough to permit the subjected process/activity to continue.

The scoring matrix and definitions implemented are as per below:

	Risk Scoring Matrix					Total Risk	
Almost Certain	5	10	15	20	25	Very Low	1-3
Likely	4	8	12	16	20	Low	4-8
Possible	3	6	9	12	15	Medium	9-14
Unlikely	2	4	6	8	10	High	15-19
Rare	1	2	3	4	5	Very High	20-25
Likelihood ↑	Very Minor	Minor	Moderate	Serious	Very Serious	Severity ←	

Safety Observation - SO	Something identified with potential to cause an incident.
Near Miss - NM	Event occurs with potential to result in an incident but with no consequences. Lessons to be learned.
Very Minor	<ul style="list-style-type: none"> • No injuries. • No impact on environment and port operation. • No damage to vessel/equipment/structure. • No risk to company image. • Insignificant cost implications for Port. Guidance cost up to £10,000
Minor	<ul style="list-style-type: none"> • Minor Injuries • Insignificant impact on environment and port operation. • Insignificant damage to vessel/equipment/structure. • Little or no risk to company image. • Minor cost implications for Port. Guidance approx. between £10,000 & £100,000

Moderate	<ul style="list-style-type: none"> • Moderate injuries. • Minor impact on environment and port operation with no lasting effects • Vessel/equipment/structure incurs minor damage but remains in service/safe to use. Some adjustments to working/operational methods may be required. • Local news coverage and control measures required to manage publicity. • Moderate cost implications for Port. Guidance approx. between £100,000 & £1,000,000
Serious	<ul style="list-style-type: none"> • Major/life changing injuries. • Limited impact on environment and port operation with short term or long term effects. • Vessel/Equipment/structure un-operational and in need of repairs/dry docking • Regional news coverage with potential for reputational damage. • Serious cost implications for Port. Guidance approx. between £1,000,000 & £5,000,000
Very Serious	<ul style="list-style-type: none"> • Single Fatality or Multiple Fatalities. • Significant impact on environment and/or Port operation with long term effects • Vessel/Equipment/Structure unsalvageable • National/international news coverage with significant potential for reputational damage • Very Serious cost implications for Port. Guidance approx. over £5,000,000

Guidance costs are provided for the cost implications to the port. It is understood that accurate figures for considered scenarios can be difficult to predict. It is therefore advised that these are guidance only and are not to be considered definitive when balanced against the terminology for the severity bracket.

Awareness should be maintained that in the majority of cases potential hazards/incidents are unlikely to fit perfectly into a single severity bracket and it is left to the Hazard owners discretion, based on knowledge and experience, to determine the most appropriate category for any hazard being assessed.

Guidance is also provided for the definitions of Likelihood:

Probability Rating Guidance (Likelihood/)		
Score	Descriptor	Definition
1	Rare	Very unusual - not common or frequent
2	Unlikely	Not probable or likely to happen
3	Possible	Might or might not happen
4	Likely	Will probably happen or is expected
5	Almost certain	More than likely

Again, dependent on the hazard being assessed the interpretation of the descriptor may vary. Therefore, the definition provided simply expands on the descriptor without providing time scales or windows. Experience from the hazard owner will once again inform the application of this scale.

Combining the severity and likelihood provides a total risk score. This is the score that is to be reduced to ALARP. Whether this has been achieved is determined by the hazard owner and/or when appropriate, the combined experience of a review panel or working group, based on the knowledge and experience of those involved.

7.3.3 **Dynamic Risk Assessment**

Dynamic risk assessment (DRA) is used to analyse a risk when carrying out any form of activity – whether routine or unusual. This process helps an individual to assess a situation as it develops in real time, adjusting their responses according to a constantly changing scenario.

It is unlikely that DRAs will be formally recorded, evidence of the process taking place will be limited. Nevertheless, during audit and inspection exercises, evidence may present itself in the form of discussion or log entries, whether that be specific mention of a dynamic risk assessment or evidence of how thought processes have led to decisions being made.

Over time, some of these dynamic assessments may lead to a review and revision of the planned/formal risk assessment. This should be recorded accordingly.

8.0 **DOCUMENT CONTROL**

8.1 **Document Control Processes**

All Safety Management System documentation is controlled centrally within the Controlled Document Library (CDL) within Sharepoint. The system is owned by the HM (SMS & VTS) and document owners (i.e. department heads) are prompted to review documentation in accordance with an assigned review period, normally 1-3 years.

The CDL consists of two Sharepoint sites. These are the public and administration libraries. User guides are available for both. The public library holds and provides access to read only versions of all documentation. Forms are available for download and remain fillable. Links are provided via the Chief Harbourmaster's home page on the PLA intranet, providing easy access to all Port Marine Safety Code documentation, as well as links to pages filtered for each department.

The administration site provides access to all documentation, but also provides the toolset for reviewing it. This includes version control, approval workflows and templates for the creation of new documentation.

The public site can be accessed via the following link:

<https://thepla.sharepoint.com/sites/ControlledDocumentLibrary>

The Administration Site can be accessed at the following link:

<https://thepla.sharepoint.com/sites/CDLAdministration>

The Marine Compliance department will confirm the requirements of the PLA's Quality Management System and the document control procedure such as correct formatting, headers and footers prior to publication. The SMS department is also responsible for monitoring the review schedule and prompting document owners where required. Documents subjected to minor change and amendments are reissued after a practical number of changes have occurred.

8.2 **Review process and approval workflows**

The CDL Administration site is utilised for the review and approval of all controlled documentation. This is achieved through built in processes and templates designed to simplify and automate processes.

A document within the CDL Administration site can be reviewed at any time. All changes are saved automatically as part of the review process and the system automatically saves a full version history.

The creation of a new document works in much the same way. New documents can be created from easily accessible templates.

When ready for publishing triggers are available that will send the document to the department head for approval. The department head can either accept the changes, which will send the document to the Marine Compliance team for publication review, or reject it, which will send the document back to the person who reviewed it. Each of these steps allow the user to insert comments to inform of changes and provide feedback.

8.3 **Manuals, Forms and Operational Procedures**

The cornerstones of the PLA's Marine SMS are the knowledge, skills and competence of its employees, underpinned by appropriate training of individuals within the system. Operating controls in the form of departmental manuals, operating procedures and/or forms reinforce this and are accessed via the public Controlled Document Library linked in section 8.1 above. The different document types can be easily filtered out and the system has a powerful search function built in to help with locating documents quickly.

Departmental manuals provide direction and guidance on the core functions of the department. They also provide an overview of recruitment, training and, as appropriate, authorisation procedures and standards.

Operating Procedures are produced by function, as deemed necessary, to describe the activities to be carried out for each operational process or task, including any precautionary measures that need to be observed.

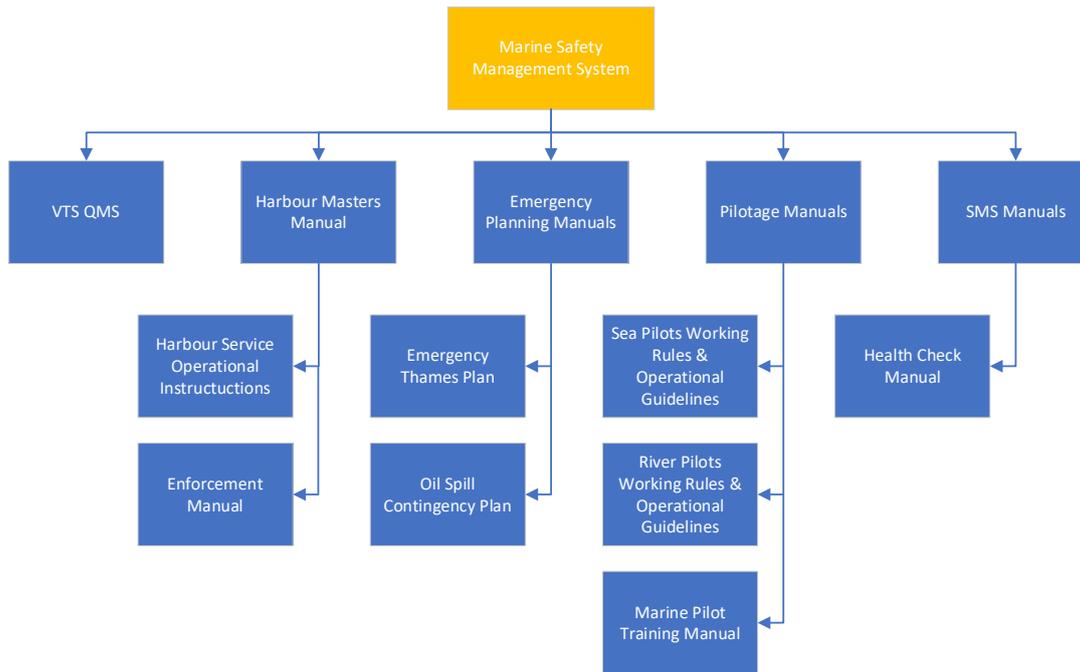
Forms are designed to support functions and/or processes allowing for the recording and/or submission of appropriate information for a given occurrence or task.

Operating Procedures may provide, where appropriate, the step-by-step instructions for all or any of the following:

- What activities are to be done;
- In what sequence;
- By whom;
- When;
- On what frequency; and
- What records and paperwork to prepare and/or retain.

Figure 5 below describes the departmental operational manual structure relevant to the Marine SMS.

Figure 5
Marine Safety Management System Manuals



8.4 Consultation and Communication

Feedback from both PLA staff and other river users provides a vital Marine SMS component. All are actively encouraged to be involved in the management of marine safety. This includes input into the development and implementation of the Marine SMS and its operational risk management controls.

Examples of consultation, involvement and communication employed by the PLA in the maintenance of the Marine SMS include:

- Navigational Risk Assessment Working Groups
- River User Consultative Forums
- PLA Harbour Master Recreational Navigation Groups
- Berthing Operators Working Group
- Consultation Notices
- Byelaws and Directions consultation processes

8.4.1 Public Consultation

All the PLA's local rules, codes of practice and guidance are reviewed on a rolling three-year cycle. This helps to ensure that the regulatory framework remains current, fit for purpose and relevant to port operations and the trades and vessels using the port.

After approval from the Marine Management Team, it will seek the views of port users through a Safety of Navigation Consultation Notice. These notices provide details of the reasons for the proposed changes, identify the change and any impact they may bring.

Where general guidance or a code of practice is subject to review, we may simply ask for views as to whether the code content remains current and appropriate and seek suggestions for amendments and/or enhancements. Most consultation periods normally run for at least 6 weeks and details are sent direct to appropriate practitioners and users via email and posted on the PLA website. When PLA byelaws

are being reviewed, this informal consultation will always be followed by the statutory formal public consultation administered by the Department for Transport.

The PLA will review the comments and suggestions and consider what changes are appropriate to be made to the draft proposals, producing a feedback matrix which is placed on the PLA website.

All new/changed regulations – byelaws and directions are also approved by the PLA Board.

9.0 TRAINING

9.1 Competence Assurance

The competence assurance process is linked directly to considered personnel selection and recruitment procedures, relevant job descriptions and appropriate pre-determined recruitment selection criteria.

Typically, the process comprises four stages:

Stage 1: Pre-Job

A person shall not be permitted to undertake work until the entry-level criteria have been satisfied. Entry-level requirements are normally defined within the relevant job description and vacancy notice.

Stage 2: Induction Training

All new staff, including any temporary personnel, will receive appropriate induction training. This will take the form of general induction training common to all new staff, followed by departmental induction training and operational briefings as appropriate.

Stage 3: Supervision and On the Job Training (OJT)

Once a person has been identified as suitable to fulfil a specific job function, that person will be placed under the supervision of a competent person, who will recommend when the person is considered competent. Alternatively, in certain cases, this period of supervision may take the form of On the Job Training, following which a formal assessment of competence is conducted.

Stage 4: Competence

A person may be considered competent once he/she has completed all necessary induction training and has been assessed either by his/her supervisor, or by formal assessment on completion of OJT.

The principles of competence assurance are followed when recommending authorisation of a Pilot Exemption Certificate.

9.2 Marine Training

Training is a key element within the Marine SMS. In order to ensure that personnel are properly trained, the principles of job analysis and training design are followed. In particular, the person responsible for marine training will:

- Identify operational and safety training needs;
- Establish a skills matrix of competency levels required for key tasks;
- Plan how training requirements are to be met and when; and
- Establish a process to appraise the effectiveness of training.

Training of Pilots

Responsibility for the development, provision and maintenance of the training of Authorised Pilots, Pilot Exemption Certificate Holders and Local Navigational Certificate Holders has been delegated by the MMT to the Pilotage Training Panel. The Terms of Reference for the Pilotage Training Panel is included in Appendix B.

9.3 **Safety Management Training**

It is PLA policy that all Board members, marine managers, senior managers and line-managers shall attend either a HR Induction Day or a one-on-one Marine SMS Briefing to ensure that they are fully aware of the provisions of the Marine SMS, and of specific roles and responsibilities assigned to them within this programme. The topics covered in the SMS Briefing's include:

- Overview of relevant PLA Byelaws, General and Pilotage Directions;
- Navigational Safety Policy;
- Outline of management and operating procedures, and their provisions;
- Principles of individual accountability and responsibilities;
- Formal and informal procedural controls in place; and
- Outline of response to emergencies and contingencies.

9.4 **Task Changes**

Changes to operational systems and/or safety critical tasks or activities will be considered when:

- Employees transfer to different operating functions, tasks or work locations, or where they are required to take on new responsibilities or to deputise for an employee performing a different activity.
- There is a significant change in the work equipment or risk management systems employed (*this may also require a re-assessment of the risks*).

9.5 **Refresher Training**

To ensure that staff remains abreast of developments and to prevent any decline in the level of competence and skills of either management or staff, relevant training and instruction shall be repeated periodically, as appropriate. This will ensure that continued competence and skill levels are maintained in accordance with required competence, pre-determined job requirements and/or risk control criteria.

9.6 **Training and Competence Records**

All training and instruction provided to employees will be duly recorded and stored securely.

9.7 Exercising

The below table shows the generic exercise matrix for Marine departments:

Exercise	Frequency	PLA Involvement						
		Harbour Master	VTS	Marine Services	TOSCA	Harbour Service	Corporate Affairs	Pilot Cutter
Major oil spill exercise – Full Deployment	3 Yearly	x	x	x	x	x	x	
Oil Spill Notification Exercise	6 Monthly		x					
Oil Spill Call out Exercise	6 Monthly	x		x	x	x		
Major Incident Exercise ClassV Collision in C. London	Annual	x	x	x		x	x	
MOB Exercise - Pilot cutter	Monthly							x
MOB Exercise - Harbour Service Launch	6 Weekly					x		
VTS Switch Over Exercise PCC to TBNC	Annual		x					
VTS Switch Over Exercise TBNC to PCC	Annual		x					
TBNC Fall Back Centre Test	Annual		x					
MEC Test - Woolwich	6 Monthly	x	x					
MEC Test - Gravesend	6 Monthly	x	x					

10.0 INCIDENT INVESTIGATION

Our key objective under the Navigational Safety Policy is to investigate all navigational incidents and near misses to determine the cause. This is with the aim of reducing the incidence and severity of occurrences, whilst informing the risk assessment process and deciding whether an offence has been committed.

In certain circumstances the Marine Accident Investigation Branch (MAIB) or Maritime and Coastguard Agency may become involved. In such cases, the PLA will take a provisional view of any failings of the Marine SMS and act upon them. A full appraisal of the final outcome of any external investigation (following the publication of any reports or the conclusion of any investigation, inquiry or prosecution) will subsequently be undertaken and any remaining issues considered at that time. More details on this, along with the full incident reporting procedure can be found in the PLA Operational Procedures.

10.1 Incident Reporting

The PLA wishes to create an environment within which all marine incidents are reported. PLA Thames Byelaws require that a master provides a report to the Harbour Master should his vessel be involved in certain incidents. However, all are encouraged to report other incidents, for only by understanding the causes and avoidance measures adopted in all such circumstances can more serious incidents be avoided.

A dedicated Marine Incident / Near Miss report form has been made available for reporting incidents. The form can be downloaded from both the PLA intranet and website. All reports are acknowledged, and an estimated timescale given to the reporter for completion of the investigation, after which the outcome of the investigation is conveyed.

Duty Officers and Duty Port Controllers have access to an incident reporting portal to submit notification of incidents, allowing automatic notification to the relevant parties.

Incident

In relation to the Marine SMS an incident is defined as:

‘Any unplanned event which causes, or is liable to cause, an undesirable outcome’.

The above definition encompasses:

- injury or death to one or more persons;
- damage to property (i.e. vessels, port infrastructure or aids to navigation);
- damage to the environment;
- damage to port business (i.e. financial loss or damage to the PLA’s or the Port’s reputation); or
- Non-compliance with a statute or regulation.

Near Miss

Note that the inclusion of ‘liable to cause’ brings Near Misses into the definition of incident.

Examples of those to be considered include:

- Situations where a vessel needs to take unconventional avoiding action.
- A vessel passing another so close as to create a risk of collision or interaction.
- A vessel passing so close to shoal water as to create a risk of grounding.
- A vessel passing so close to a structure as to create a risk of contact.

Deficiency

- Breakdowns which did not lead to an incident or near miss.

For Commercial Shipping, these are reported to the Maritime & Coastguard Agency (MCA) if they fail to comply with the requirements of international conventions (i.e. SOLAS, MARPOL, STCW, etc.) automatically when entered into the incident reporting system. Our POLARIS system is also updated to record the deficiency on the vessel and to notify the vessel's agent.

10.2 Investigation

The Harbour Master is responsible for the investigation of marine incidents in accordance with the Navigational Incident Investigation Procedure, both from the Marine SMS perspective (i.e. the cause/circumstance of the incident-) and in the regulatory sense (whether there has been a breach of PLA or other regulations - see Section 7.1.2.).

The requirements of the Marine SMS and enforcement investigations may conflict - the PLA Enforcement Manual addresses this issue in detail.

Timescale objectives for investigations are as follows:

- Minor/Moderate incident investigations to be completed within 4 weeks
- Serious, very serious and severe incident investigations to be completed, with the Harbour Master's Incident Investigation Report submitted to MMT, within 6 weeks

See section 9.6 for the Investigation Timeline.

Upon completion, the reporter and/or the involved parties are notified of the findings of the Harbour Master's investigation. Where Investigation Reports are produced for serious, very serious and severe incidents, these are provided to the persons involved, as well as disseminated as per section 9.5 'Promulgation of lessons Identified' below.

10.3 Assignment of Severity

The PLA holds a responsibility to promote safe navigation on the Thames. On occasion incidents may occur that, whilst not serious in nature according to their assigned severity rating, may be of significance due to other factors such as the potential consequences due to size of vessel or immediate risk to life. Therefore, when these occur and the Harbour Master deems is appropriate, the incident shall be subjected to a full investigation in the same manner as if it was rated as serious, with a full report published and made available to key stakeholders involved.

10.4 Agreed Actions

The Harbour Master's findings and recommendations (if any) of his navigational safety investigation are recorded in respect of the incident's impact on the Marine SMS.

Recommendations could be directed at the company / vessel in question – such as a recommendation for the company to review their SMS or implement a particular control measure, or could be recommendations internally for the PLA or the Marine Safety Management System itself.

These may include:

- The initiation of a Navigational Risk Assessment Working Group to assess a particular hazard and identify additional risk control measures.
- Recommendation to the Hazard Review Panel to review the relevant hazard in the Port Wide Hazard Database PLA Hazard Management Database.
- The issue of a Safety Bulletin
- Promulgation of identified lessons (see below)

10.5 Enforcement Action

Any enforcement action is taken forward in accordance with the Navigational Safety Policy and the Enforcement Manual. The various levels of enforcement are summarised below:

Education

Educational enforcement of the PLA's regulations either verbally or in writing. Educational enforcement is used where a minor breach against a PLA regulation has occurred, which did not lead to a dangerous situation and the offender is unaware that they were in breach of a PLA regulation.

Informal Warning

A verbally given informal warning where a breach of PLA regulations has occurred that has led or may have led to a near miss or dangerous occurrence and a formal warning is deemed excessive.

Formal Warning

A written formal warning when there is a clear breach of the PLA's regulations or the COLREGs, which has led or may have led to a near miss or dangerous occurrence or incident and the attending PLA officer deems a Formal Warning to be appropriate.

A Formal Warning is held on PLA records for a period of 3 years.

Formal Reprimand

A formal reprimand when there is a serious breach of the PLA's regulations, which has led to a dangerous occurrence or incident and the attending PLA officer deems a formal reprimand the appropriate level of enforcement.

Prosecution

Follows any action by an individual that has resulted in an offence being committed against PLA regulations; and where the Harbour Master, supported by legal advice, has recommended to the Chief Harbour Master that a prosecution should be initiated.

A record of prosecutions is maintained within the Safety Management System as well as individual company or persons' enforcement logged within the PLA's Navigational Incident Database. Prosecutions are also published online on the PLA website.

10.5.1 Incidents involving death or crime.

The Police will take primacy in any investigation involving death or crime. When someone dies in a work-related incident or as a result of a navigational incident, a number of different organisations will require to work with the Police to ensure that the incident is investigated and that the reasons for the death are understood. The PLA will conduct its own investigation into any potential causes, although this may be hindered dependent on the sensitivity of the Police Investigation. The PLA will work with the police to support their investigation where appropriate. Any documentation received from the police as a result of their investigation to be include on the PLA's report.

10.6 Promulgation of Lessons Identified

Summaries of Incident investigations for serious, very serious and severe incidents are placed on the PLA website and internal Intranet where they remain for a period of three years. Periodic SMS reports are also produced by the Marine Compliance department which include trend analyses and incident statistics. Where investigations produce lessons for a particular industry, company or user group. The lessons are shared through regular liaison, River Users Consultative Forums or PLA Harbour Masters' Recreational Navigation Groups.

Reports which identify lessons pertinent to Pilots and VTS Officers are placed onto the PLA's River Information System to be viewed, which is used by Pilots and VTS Officers regularly. Additionally, minor/moderate reports and/or near misses are placed onto the PLA Intranet.

When a trend is identified, the PLA issues Safety Bulletins to bring these trends to light, as well as provide guidance to river users in order to reduce the likelihood of an incident reoccurring.

10.7 Incident Investigation Targets / KPIs

10.7.1 Minor/Moderate Incidents

The target for completion of minor or moderate incident investigations is 4 weeks from the date of the PLA being informed of the incident. The incident should be closed out within this time.

10.7.2 Serious, Very Serious and Severe Incidents

The target to complete a Harbour Master's Incident Investigation Report for serious, very serious or severe incidents is 6 weeks from the date of the PLA being informed of the incident. Reports should be submitted to the Marine Managers Team (MMT) within this time, for discussion at the subsequent MMT meeting.

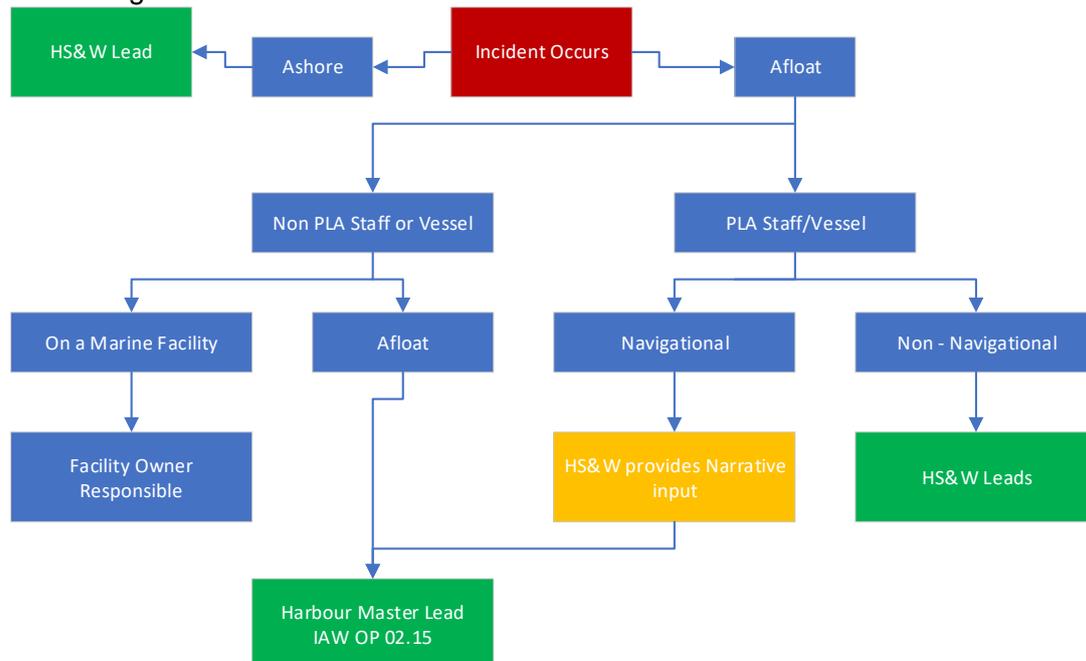
Serious, very serious or severe incidents should be closed out within 10 weeks from the date of the PLA being informed of the incident.

An analysis and report of these KPIs is contained within the Quarterly and Annual SMS reports.

Note: Incidents which involve a prosecution will fall under the 10 week Incident KPI, regardless of their allocated severity.

10.8 Incidents afloat involving PLA craft or staff

The following flow diagram clarifies the process of investigating and recording incidents and accidents involving PLA staff; including the identification of investigation leads.



Notes:

1. Ashore and Non-Navigational investigations involving PLA staff will usually be lead by the departmental line manager, reporting to Health Safety & Wellbeing (HS&W). HS&W may choose to lead on high profile incidents or serious, very serious or severe incidents.
2. If an incident lead by HS&W (or line manager) leads required the MAIB to be informed, a Harbour Master is to be advised at the earliest opportunity.
3. HS&W are to be informed at the earliest opportunity of navigational incidents that result in a personal injury to PLA staff. HS&W will investigate the injury only and provide narrative input to the Harbour Masters investigation report
4. For non-PLA staff / vessel incidents the Harbour Master is responsible for the investigation; including on board accidents involving confined spaces, personal injury, etc.
5. There may be instances where it is not immediately apparent whether HS&W or a Harbour Master should lead on an investigation. In these instances, a mutual agreement should be sought where one department should lead (and own the investigation report & resulting statistics) and the other should provide narrative input as appropriate.

11.0 PERFORMANCE MONITORING

The PLA performance-monitoring programme is designed to progressively improve marine safety. By measuring key indicators, which reflect both the performance of the PLA and that of port and river users, appropriate measures can be adopted and introduced which further improve marine safety.

11.1 Performance Measures

The following measures are used to monitor marine safety and PLA performance:

- Facilitating the safety of navigation within the tidal Thames
 1. Number of Maritime Safety Incidents.
 2. Availability of PLA navigation lights and buoys.
 3. Number of attributable ship delays.
 4. Number of complaints re: attributable ship delays.
- Respecting Environment of Tidal Thames
 1. Total number of reported pollution incidents.
 2. Number of attributable pollution incidents, including safety incidents.
 3. Number of prosecutions initiated.

ExCo reviews all PLA performance measures on a quarterly basis.

11.2 Compliance Monitoring

The day-to-day monitoring of marine safety management controls and provisions is measured and checked through departmental monitoring regimes using the criteria laid out in Section 4.

Evaluation of the level of compliance is achieved through:

- Proactive systems that monitor performance in relation to objectives and operating standards; and
- Reactive systems, which investigate incidents and unwanted events.

The responsibility for conducting compliance monitoring currently lies primarily with departmental managers (MMT) and the Marine Services Manager. However, these managers must ensure that all levels of management are involved in the monitoring regime.

11.3 Records and Record Management

The SMS department, in liaison with the appropriate Harbour Master and Information Systems support, is responsible for maintaining appropriate records in both the Hazard Management and Incident Management databases. Such records are to include a complete and accurate audit trail of the development and maintenance of the Marine SMS.

The SMS department submits a six monthly and annual report to the Marine Management Team (MMT) in this respect and ensures that all such records are available for inspection, as and when required. These reports are considered by the MMT.

In addition, departmental managers are responsible for identifying any supplementary records they require to keep, and for establishing the necessary procedures and/or guidance notes for keeping and retrieving these records, as related to their areas of responsibility. All supplementary records kept shall also be made known to the SMS department for information and/or use if required.

12.0 AUDIT AND REVIEW

The auditing process of the Marine SMS requires an assessment of continuous development and improvement and its responsiveness to events and changing circumstances.

In order to comply with the requirements of the PMSC, the PLA will ensure appropriate internal and external audits of the Marine SMS are undertaken at appropriate periods. This will include audits or reviews undertaken by the appointed 'Designated Person'.

12.1 Audit

12.1.1 Objectives

Audits are conducted to achieve the following objectives:

- To determine if the Marine SMS is being operated in accordance with the PLA's Navigational Safety Policy and the provisions of the PMSC.
- To monitor the overall effectiveness of the system.
- To identify and implement ways of improving overall performance.
- To confirm that relevant procedures are understood and being actioned by those involved.

The overall objective is to implement systematic, independent audits to support continuous improvement in marine safety performance.

12.1.2 Independent Audits/Reviews by the Designated Person

The 'Designated Person' shall undertake periodic audits/reviews of the Marine SMS for the purpose of assessing the following:

- The continued provision of an appropriate and effective Marine SMS.
- The PLA's ongoing, overall compliance with the requirements of the Port Marine Safety Code.

12.1.3 External Audits

The overall PLA management system is subject to and has been certified to ISO standards. Accordingly, the PLA processes which contribute to the management of navigation are subject to internal and external (LRQA) ISO audit in order to confirm they continue to comply with the ISO standard. Further external audits of the system by third parties will also be undertaken in order to inform the Duty Holder's periodic statement of PMSC compliance to the Maritime & Coastguard Agency (see 10.2).

12.1.4 Internal Audits

A system of internal Audits and 'Health checking' has been established to monitor the operational aspects of the PLA's Navigational Safety remit.

This process is to ensure specific departmental functions' compliance with PLA procedures, policies, Safety Management System (SMS) and in turn, compliance with the Port Marine Safety Code. This system will provide added assurance that the plans, policies and procedures the PLA have in place are sufficient and are being followed.

The intention of the audits is to ensure a high level of proficiency and effectiveness of the various functions which fulfil the requirements of the SMS. Where appropriate, ways in which the Port can enhance the way it carries out its duties may be identified and any best practice can be shared across departments.

The scope of this audit system includes the areas which fall under the remit of the Chief Harbour Master, as well as the Chief Executive:

- Chief Executive
- Chief Harbour Master
- Harbour Masters
- VTS
- Pilotage
- Safety Management Systems
- Harbour Patrols
- Pilot Cutter

These audits are in addition to any LRQA or ISO audits applied to the PLA in general.

Further details are contained within the 'Internal Auditing Manual – Safety Management Systems' document.

12.2 Ongoing Internal Reviews

Reviews of SMS performance are carried out by the MMT as follows:

- **Monthly** - to review individual marine incidents and any developments to the SMS arising from such incidents, and an appraisal of progress in implementing the rolling Outstanding Action Plan;
- **Annual SMS Performance Review** – to review PLA performance against the three-yearly Marine Safety Plan.
- **Periodic External Audit** – to submit to an external audit of the SMS and compliance with PMSC every three to five years;

12.2.1 **Review of relevant external information**

1. Sunk Area

Details of navigational incidents in the Sunk Area will be passed to the PLA by Harwich Haven Authority VTS and/or Sunk VTS on behalf of the MCA. These incidents will be reviewed approximately 6 monthly by the Sunk VTS Working Group and issues will be passed to MMT as appropriate to determine any relevance for the PLA SMS, and in particular for pilotage and VTS procedures.

2. MAIB Incident Reports and other international reports

The Marine Compliance Manager assesses all published MAIB Incident Investigation Reports, as well as other international reports relevant to the Marine SMS. The Reports, including lessons learned and/or consequences are reviewed formally by MMT and/or promulgated to relevant marine staff, including pilots.

3. Other Publications and Incident Reports

The same process is applied to any other relevant publications and reports, of which the PLA becomes aware.

4. Internal consultation

Where the PLA is required or wishes to make a representation on an external consultation or amendment to legislation, this is shared internally with appropriate heads of department and a PLA response coordinated by the Marine Compliance Manager

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ANNEX A
PLA POLICIES

PLA POLICIES

Other PLA polices influencing the management of marine safety:

POLICY	OWNERSHIP	INFLUENCE ON MARINE SAFETY
Navigational Safety Policy	HM (SMS & VTS)	Defines the organisation and arrangements the PLA has established to monitor, promote and proactively manage the conduct of navigation and associated marine activities
Quality Policy	Management Systems	Supplements the internal healthcheck system (see section 11.1.4) Review of strategy and business plans
Environmental Policy	Environment	Commitment to the sustainable development of the river and estuary in accordance with the Marine Policies.
Health & Safety Policy	Health and Safety	Continuously improve health and safety performance by adopting industry best practice including guidance from Port Skills and Safety and The Port Marine Safety Code.
Drug & Alcohol Policy	Human Resources	The enforcement of The Merchant Shipping (Alcohol) (Prescribed Limits Amendment) Regulations 2015 and Railways and Transport Safety Act on Marine Staff.
Port Security Policy	Port Security Officer	Summarises the PLA's responsibilities in respect of security matters in the wider port environment and the PLA's internal security culture and arrangements.
PLA's Whistle Blowing Policy	Human Resources	Encourages employees to report malpractice in areas such as Marine Safety, health and safety or fraudulent, discriminatory or dishonest practice, outlining procedures and protections in place to do so.
Retention Policy	Legal	The retaining of documents for 7 years (except those specifically required to be maintained for longer as a matter of law.) Assists with recording and reference of decisions made.
Delegation of Authority	Secretary to the Board	To discharge the duties and exercise the powers given to the PLA by Parliament in the Act and otherwise, both directly and by delegation as the Authority considers appropriate. (See Annex D)

ANNEX B
TERMS OF REFERENCE

*(Refer to CDL document **ML0306**)*

ANNEX C

MARINE DELEGATION OF AUTHORITY

The PLA is a Statutory Harbour Authority under the Harbours Act 1964 and a Competent Harbour Authority under the Pilotage Act 1987. Certain powers are also granted to the Authority under the Merchant Shipping Act 1995 and other legislation. The PLA is subject to the requirements of the Port Marine Safety Code.

The Port Marine Safety Code identifies the PLA Board, collectively, as the 'duty holder' and as such members are collectively and individually accountable, and therefore responsible for ensuring that marine operations within the port are managed safely and efficiently. The Board fulfils these requirements by ensuring that all statutory and operational responsibilities for marine safety are clearly assigned and has delegated statutory and operational responsibilities. Where appropriate, responsible officers have further delegated responsibilities to deputies and/or assistants. Individual responsibilities in respect of marine operations have been formally acknowledged in writing through the acceptance and signature of specific job descriptions.

Officers to whom those responsibilities are entrusted are accountable for their performance.

STATUTORY AND REGULATORY DELEGATIONS

POST	DELEGATED RESPONSIBILITY/ FUNCTION	OVERVIEW OF POWERS AND/OR DUTIES	RELEVANT LEGISLATION/CODES	MARINE AUTHORISATION / LEVEL
Chief Harbour Master	Harbourmaster	Appointed Harbourmaster by the Port Authority. Authority Initiation of prosecution Prosecution under the Pilotage Act Decision to initiate maintenance dredging	PL Act - s 5 Pilotage Act 1987 Pilotage Act 1987 PL Act - s 60	YES 1, 2 and 3

POST	DELEGATED RESPONSIBILITY/ FUNCTION	OVERVIEW OF POWERS AND/OR DUTIES	RELEVANT LEGISLATION/CODES	MARINE AUTHORISATION / LEVEL
Harbour Master & Designated Deputies	Harbour Master	Appointed Harbour Master Power to give special directions Restricting public use of the Thames Removal of wrecks Raise and remove sunken vessels Removal of obstructions Removal of projections Repair of landing places/embankments Identity of vessel Master Power as a Local Lighthouse Authority Surrender of local lighthouses Lights detrimental to navigation Refuse/revoke craft registration Removal of vehicles	PL Act - s 5 PL Act - s 112 PL Act - s 91 Merchant Shipping Act 1995 - s 252 PL Act - s 120 PL Act - s 121 PL Act - s 122 PL Act - s 123 PL Act - s 138 Merchant Shipping Act 1995 - s 201 Merchant Shipping Act 1995 - s 204 PL Act - s 133 PL Act - s 128 PL Act - s 177	YES 1, 2 and 3

POST	DELEGATED RESPONSIBILITY/ FUNCTION	OVERVIEW OF POWERS AND/OR DUTIES	RELEVANT LEGISLATION/CODES	MARINE AUTHORISATION / LEVEL
	<p>Explosives Security Officer</p> <p>Port Security Officer (appointed by Thames Port Security Authority)</p>	<p>Restrictions on transfer of oil at night</p> <p>Power to prosecute for oil pollution offences</p> <p>Power to detain for oil pollution offences</p> <p>Control of Dangerous Vessels</p> <p>Control of the movement of dangerous substances</p> <p>Control of the movement of explosives</p> <p>Implementing Port Security Plan.</p>	<p>Merchant Shipping Act 1995 - s 135</p> <p>Merchant Shipping Act 1995 - s 143</p> <p>Merchant Shipping Act 1995 - s 144</p> <p>Dangerous Vessels Act 1985</p> <p>Dangerous Goods in Harbour Areas 2016.</p> <p>PL Act - s 149</p> <p>Dangerous Goods in Harbour Areas 2016.</p> <p>Aviation & Maritime Security Act 1990.</p> <p>ISPS Code 2004</p> <p>The Ship and Port Facility (Security) Regulations 2004. SI 2004/1495</p> <p>The Port Security Regulations 2009. SI 2009/2048.</p>	
Harbour Master & Designated Deputies	Harbour Master	<p>As for HML – see above</p> <p>Work sluices at Richmond Lock</p>	<p>*Except control of the movement of dangerous goods, explosives and port security</p> <p>PL Act - s 88</p>	<p>YES</p> <p>1, 2 and 3</p>

POST	DELEGATED RESPONSIBILITY/ FUNCTION	OVERVIEW OF POWERS AND/OR DUTIES	RELEVANT LEGISLATION/CODES	MARINE AUTHORISATION / LEVEL
HM (TTT)	Harbour Master – (Thames Tideway Tunnel)	Provision of major infrastructure project - Thames Tideway Tunnel		YES 1, 2 and 3
HM (VTS & SMS)	Harbour Master (VTS & SMS)	Provision of vessel traffic service systems		YES 1, 2 and 3
Marine Pilotage Manager	Marine Pilotage Manager	Provision of Pilotage services	Provision of pilotage services Pilotage Act 1987	YES 1, 2 and 3
Port Hydrographer, Designated Deputies & Surveyors	Port Hydrographer	Provision of hydrographic surveys	PL Act - s 7	YES 1, 2 and 3
Designated Person	Designated Person	Act as 'Designated Person'	Port Marine Safety Code	NO
Marine Surveyor & Designated Deputies	Marine Surveyor	Inspection and licensing of vessels	PL Act - s 124 & 126	YES
		Replacement of inaccurate and lost certificates	PL Act - s 130	1, 2 and 3
An 'Officer' of the Authority (i.e. Marine River Inspector)	'Officer' of the Authority	Power to board a vessel	PL Act - s 137	YES 1, 2 and 3
Licensing Officer	Licensing Officer	Issue of licences for river works including maintenance dredging.	PL Act - s 66 PL Act - s 73 PL Act – s90	YES 2 and 3
Estates & Facilities	Estates & Facilities	Maintenance of PLA premises	PL Act – s90	YES 2 and 3

POST	DELEGATED RESPONSIBILITY/ FUNCTION	OVERVIEW OF POWERS AND/OR DUTIES	RELEVANT LEGISLATION/CODES	MARINE AUTHORISATION / LEVEL
Marine Services Manager & Designated Deputies	Marine Services Manager	Raise and remove sunken vessels (not to declare obstruction). Removal of obstructions Removal of projections Removal of vehicles	PL Act - s 120 PL Act - s 121 PL Act - s 122 PL Act - s 177	YES 1, 2 and 3
Civil Engineer	Chief Engineer	Repair of landing places/embankments	PL Act - s 123	YES 2 and 3

POST	DELEGATED RESPONSIBILITY/ FUNCTION	OVERVIEW OF POWERS AND/OR DUTIES	RELEVANT LEGISLATION/CODES	MARINE AUTHORISATION
Environment Manager & Designated Deputies	Environment Manager	Monitoring compliance with and developments in national and European legislation relevant to dredging and river regimes.	Marine Works (Environmental Impact Assessment) Regulations 2009 (SI2009/2258) (as amended) Marine and Coastal Access Act 2009 PL Act – s 5	YES 2 and 3
Licensing Committee	Licensing of River Works Licensing of Dredging Pilotage Land Use Planning	Granting river works licences Granting of licence to undertake maintenance dredging. Authorising pilots and Pilotage Exemption Certificate Holders. Suspension and revocation of Pilotage Exemption Certificates. Re-issue of Pilotage Exemption Certificates. Re-authorisation of pilots. Granting PLA or lessee's exemption from planning controls under certain circumstances.	PL Act - s 66 PL Act - s 73 Pilotage Act 1987 Pilotage Act 1987 Pilotage Act 1987 Port Marine Safety Code Town & Country Planning (General Permitted Development) Order 1995.	NO
Board/Licensing Committee	Capital Dredging	Decision to undertake capital dredging	Full scope of legislation to be identified.	NO
Marine Policing Unit Officers (Met Police)	Delegation of Authority	Power to issue a Special Direction Power to Board a vessel	PLA Act – s 112 PLA Act – s 137	YES 1, 2 and 3

Authorisation Levels

- 1 - To perform the functions of the Harbourmaster
- 2 - To Enter and Inspect vessels on the Thames
- 3 - For Entry on Land to Survey and Inspect

Levels 1, 2 and 3

The holder is a Port of London Authority harbourmaster and has power to give directions to vessels on the tidal Thames and in the docks and enter to inspect the vessels or to prevent or extinguish fires and to enter on land adjoining the Thames to survey and inspect works, landing places and embankments, in accordance with the provisions of the Port of London Act 1968 and Thames Byelaws and Directions made under that Act.

Levels 2 and 3

The holder has been appointed by the Port of London Authority and has power to enter on land adjoining the Thames to survey and inspect works, landing places and embankments, in accordance with the provisions of the Port of London Act 1968 and Thames Byelaws and Directions made under that Act.

- Notes:**
- 1. * Presently lies with CHM.
 - 2. The Marine Services Manager is the Nominated Person for the storage of petroleum at Denton Wharf (local authority requirement)