

PORTS OF

TILBURY

AND

TILBURY2

LONDON

2017

Marine Safety Management System



Marine Department
Port of Tilbury London Limited
March 2017

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1. INTRODUCTION AND POLICIES

Confirmed by the Secretary of State for Transport by an Order dated 28TH February 1992, the Port of Tilbury London Ltd was granted status of a Harbour Authority within the impounded dock. Power of directions under section 112 of the Port of London Act 1968 were granted for the regulation and Safe Navigation and enforcement of the By-laws.

An additional Order was granted on the 20Th February 2019 by the Secretary of State for Transport that authorised the construction, operation and maintenance of a new port terminal, associated facilities and extended Ports limits (known as Tilbury2) at the site of the former Tilbury Power Station. Power of directions under section 161 of the Port of London Act 1968 were granted for the regulation and Safe Navigation and enforcement of the By-laws.

The Port Marine Safety Code was developed by the UK Department of the Environment and Transport and currently managed by the Maritime Coastguard Agency. The code sets out best practice for Ports to follow and senior management / board members to protect safety for the people and protect both property and the marine environment, it specifies that the:-

"The primary responsibility rests with the authority itself and its board members. They are held to be the custodians of the duties and powers which have been entrusted to each harbour authority. Board members are collectively and individually accountable for the proper exercise of their authority's statutory functions"

In preparing this ports marine policy objectives, with the associated procedures and plans, the Directors and Managers aim to demonstrate their commitment to the safe and responsible marine operation of the Ports of Tilbury and Tilbury2, by detailing areas of primary concern and bringing a greater degree of transparency and consultation with all the "port-users", customers and employees to establish and achieve the strategic safety objectives of:-

"Identifying and assessing all marine and navigation hazards likely to be encountered during this ports marine activities. Introducing and promulgating "Notices to Mariners", "Directions", "Safe Working Instructions" and "safe Working Practices".

Eliminating or introducing control measures to mitigate all marine risks wherever possible. Introducing and exercising plans for both safe operation of this port and all the responses to any marine emergency.

We have strengthened our reporting procedures, introduced a system for auditing and reviewing our performance against this policy and have nominated and independent "designated person" to provide assurances that the Ports of Tilbury and Tilbury2 "Marine Safety Management Systems" are working effectively. The port of Tilbury London Ltd is committed to undertaking all "marine activities" in full compliance with the Port Marine Safety Code, the Oil Pollutions Preparedness, Response and Co-Operation Convention and all other applicable marine safety and Environmental regulations.

Duty Holder Paul Dale

Asset and Site Director on behalf of the Board of Directors Port of Tilbury London Ltd. Chief Harbour Master Geoff Holland

2. Updates

Date	Brief Description of Amendment	Person Making Change
12/07/18	2 Updates added	GH
12/07/18	3.4 Duty Holder, Custody and Maintenance of the PMSC SMS	GH
12/07/18	3.5 New Section Communication meetings	GH
12/07/18	4.4 Marine Environment Policy	GH
12/07/18	4.8.2 removed - audits	GH
12/07/18	5.1 Risk matrix scores removed, risks regularly reported to the Board.	GH
12/07/18	6.1 Port annually surveyed	GH
12/07/18	6.6 Wrecks	GH
12/07/18	10.2 New section HM Powers	GH
12/07/18	10.19 New section on training	GH
12/07/18	12.14 New Section on exercises	GH
02/05/19	Updated to include Tilbury2	GH
04/09/19	4.9 updated section to include MCA and MAIB	GH
16/09/19	Project cargo	GH
20/09/19	7.1 project cargo changed to none routine	GH
20/09/19	6.6 Powers to remove wrecks	GH
20/09/19	4.9 DHM report procedure	GH
20/09/19	4.3 H&S land based incidents	GH
20/09/19	RA Sinking vessels added	GH
20/09/19	4.5 Accident investigation flow chart	GH
25/09/19	4.6 Marine Accident Investigation Flowchart and Process	GH
25/09/19	5.1 Table updated	GH

3. GENERAL SCOPE

3.1. Scope across UK

The Code is intended to apply to all harbour authorities, to the extent that they have duties and powers relating to marine safety. It applies to port marine operations the well-established principles of risk assessment and safety management systems. It is obligatory for the purposes of meeting the standard in this Code that measures are taken to reduce risks associated with port marine operations as low as is reasonably practicable.

The Code does not apply to the extent that a matter is covered by the following legislation:

- Dock Regulations, 1988. An electronic copy can be found at: http://www.legislation.gov.uk/uksi/1988/1655/made.
- Dangerous Goods in Harbour Areas Regulations 2016 (DGHAR). An electronic copy can be found at: http://www.legislation.gov.uk/uksi/2016/721/pdfs/uksi 20160721 en.pdf.

3.2. Scope at the Ports of Tilbury and Tilbury2 (POTLL)

Although The Ports of Tilbury and Tilbury2 are not a Competent Harbour Authorities within the meaning of the Pilotage Act, it is a Statutory Harbour Authority within the context of the Code. In addition, the requirement to comply with the PMS Code has been determined by the Tilbury Management Board to be one of good sense and practice.

3.3. Compliance and Audit Manual

This manual is intended to be a practical document, designed to bring together all of the requirements of the Port Marine Safety Code in one inclusive package. It complements the Port Marine Safety Code and does not replace it and users are thus recommended to refer to the Port Marine Safety Code when working through this manual.

An electronic version of the Port Marine Safety Code can be found at: https://www.gov.uk/government/publications/port-marine-safety-code

In addition, the provision of this manual should provide easy mechanism to allow an effective audit of the Port Marine Safety Code requirements as far as the Ports of Tilbury and Tilbury2 are concerned.

Specific instructions, reference and technical literature are not contained within this document but are kept in a separate Work Instruction folder, which also forms part of the Marine safety management system documentation.

3.4. Duty Holder, Custody and Maintenance of the PMSC SMS

The Duty Holder of the Port Marine Safety Code SMS is the Board of Forth Ports Limited. The Board places the following responsibility on the Port and Asset Director:-

- 1. To issue the Policy Statement on Navigational Safety under his signature:
- 2. To ensure leadership and demonstrate commitment to the safe navigation by overseeing the implementation of the policy;
- To provide resources and organisation to put the Policy Statement on Navigation Safety into effect.

The custodian of the PMSC SMS is the Harbour Master who reports on safety matters directly to the Port and Asset Director. The Harbour Master's responsibilities are as follows:

- 1. Principal operational responsibility for safety of all marine matters;
- 2. To issue the SMS documents and any revisions.
- 3. Ensuring implementation by docks/ports, Berthing Advisors, tugs and other service providers;
- 4. Advising Director when deficiencies or potential improvements are identified;
- 5. Initiating periodic revision of the PMSC SMS when required;
- 6. Establishing that the marine safety management objectives are understood;

7. Reporting on performance of the PMSC SMS, audits and corrective actions to the Port and Asset Director. —whom will in turn advise the Board.

Independent assurance is also provided to the Duty Holder by the Designated Person (Marico).

3.5. Communication and Consultation

The Port regularly attends following meetings as part of its obligation to communicate and consult with the public and official government bodies:-

Port of Tilbury London Limited and Port of London Liaison Meeting Port of London River Users Consultative forum Port of London Berthing Operations Working Group Port of London Annual Forum for River Users Thames Estuary Partnership – Dredging and Sediment group Merchant Navy Welfare Board SE Group UKHMA SE Group Port Skills and Safety – Marine /Pilotage operations group MMO Marine Planning

4. LEGISLATION AND LEGAL ISSUES

4.1. General

The statutory position of the Port of Tilbury was established by the Ports Act 1991. Under the provisions of this Act the Port of Tilbury Transfer Scheme 1991 Confirmation Order 1992 (the Scheme) was enacted and came in to force on 28th February 1992. The Scheme made amendments to the Port of London Act 1968 (PLA Act which, as amended, then applied to Tilbury.

Under the Scheme, the riverward limits of the property transferred to the Port of Tilbury and is the mean high water mark (from time to time) with grid reference points across the lock entrance as follows:

An imaginary line drawn across the lock entrance between Ordnance Survey National Grid Reference point TQ62574:75500 and Ordnance Survey National Grid Reference point TQ62584:75459

The port premises do not include any part of the River Thames (other than on the rare occasions when the MHW mark is exceeded).

The Port of Tilbury London Limited (POTLL) is also a company, subject to the provisions of the Companies Acts.

An order was made by the Secretary of State for Transport under the Planning Act 2008 on 20Th February 2019 and came into force on the 13 March 2019. The Order authorises the construction, operation and maintenance of a new port terminal, associated facilities and extended ports limits (known as Tilbury 2) at the site of the former Tilbury Power Station.

4.2. Bye Laws and Statutory Provisions

Since the date of transfer, the Port of London Dock Bye-laws, initially dated 20th September 1928, but updated by the Port of London Authority, have continued to be in force within Tilbury docks and are enforceable by the Port of Tilbury Police.

Tilbury2 has its own bylaws as covered in SI No.359 2019, under Schedule 7, also enforced by Tilbury Police. These reflect the Bylaws for Tilbury as above.

4.3. Policy Statement on Enforcement

4.3.1. About Forth Ports Limited

Forth Ports Limited ("Forth Ports") operates Nine ports - Dundee on the Tay Estuary, Tilbury and Tilbry2 on the Thames and six on the Forth Estuary - Leith, Grangemouth, Granton, Methil, Burntisland, and Rosyth.

Tilbury operates all berths within the dock and all river berths connected to the adjoining land on the River Thames. Tilbury2 will operate 3 river berths. "Lockside" is a local port service, which provides 24hr service with a Duty Harbour Master on call at all times.

The Ports of Tilbury and Tilbury2, duties also include enforcement of the Byelaws and Directions. The Port will aim to ensure a safe and speedy passage of all commercial shipping from sea to port and back to sea again.

Safety and environmental protection is of paramount importance to Forth Ports.

This Enforcement Policy sets out the general principles, which for the Port of Tilbury and Tilbury2 will follow when taking enforcement decisions. For the rest of this manual Tilbury and Tilbury2 shall be considered as the same Port acting under the Chief Harbour Master and which will be referred to as POTLL.

3.3.2 Aims of the Enforcement Policy

The aims of this Enforcement Policy are:

- 1. to ensure compliance with legislation, byelaws or regulations that may affect the proper operation of Forth Port's functions
- 2. to ensure that a consistent approach to enforcement is adopted throughout Forth Ports group
- 3. to achieve consistent treatment of offenders
- 4. to promote understanding of the Ports of Tilbury and Tilbury2 attitude to enforcement issues.

This Policy applies to all enforcement action taken by the Ports of Tilbury and Tilbury2. Enforcement in this context means any action taken to ensure compliance with legislation, byelaws or regulations. The Port of Tilbury will take action to protect, conserve or enhance the environment and safety and prevent or punish breaches of legislation, byelaws or regulations. Enforcement action can include:

- 1. discussions;
- 2. meetings;
- 3. warning letters;
- 4. reporting a case for prosecution.

3.3.3 Principles of Enforcement

The Ports of Tilbury and Tilbury2 / Forth Ports' Enforcement Policy reflects the 'principles of good regulation', which are also employed by the Government when enforcing regulation.

3.3.4 Proportionality

The Ports of Tilbury and Tilbury2 / Forth Ports will ensure that any enforcement action taken is proportional to the risks posed by the breach of legislation, byelaws or regulation and the seriousness of the offence. As far as the law allows, The Ports of Tilbury and Tilbury2 / Forth Ports will take into account the circumstances of the case and the attitude of the offender when considering action.

3.3.5 Consistency

The Ports of Tilbury and Tilbury2 / Forth Ports will be fair, equitable and consistent in its enforcement. The Ports of Tilbury and Tilbury2 / Forth Ports will promote a similar approach to enforcement in similar circumstances to achieve similar ends throughout the organisation and will develop and maintain effective liaison with other enforcing authorities. The Ports of Tilbury and Tilbury2 / Forth Ports will treat all people equally.

3.3.6 Openness

The Ports of Tilbury and Tilbury2 / Forth Ports will provide clear information and advice on the rules it applies and make it widely available. The Port of Tilbury / Forth Port will be open about how it sets about its work, and will discuss general issues, specific compliance failures or problems with anyone experiencing difficulties.

3.3.7 Targeting

The Ports of Tilbury and Tilbury2 / Forth Ports' efforts in relation to enforcement will be concentrated on those activities, which cause the greatest environmental damage, pose the greatest threats to the environment and safety or undermine regulatory regimes, which have been created to protect and improve the environment and safety and prevent harm to human health. Action is focused on those who break the law or those directly responsible for serious environmental and safety damage or risk.

3.3.8 Prosecution

The objective of enforcement is to ensure that preventative or remedial steps are taken to protect the environment and the safety and to prevent or minimise, and make harmless, releases that can cause pollution / deter, prevent or minimise future breaches of legislation / byelaws / regulations. Prosecution of offences under relevant legislation is one of the ways of achieving that objective.

Companies, as well as individuals within a company, such as directors or senior managers, may be reported for prosecution. Individuals may be reported where it can be shown that the offence was committed with their express or implied consent, or was due to their negligence.

3.3.9 Overarching Principles

- The Ports of Tilbury and Tilbury2 / Forth Ports will not ignore any knowingly criminal or negligent act by any person or company which damages or threatens the environment or which flouts the law.
- 2. Persistent breach of legislation/byelaws/regulations will not be tolerated. Required action may be phased in over a reasonable but binding timescale depending upon its importance to the environment and regard to safety and the attitude of the offender.
- 3. Whatever the timescale and urgency of enforcement action, it will be fair, reasonable and open.
- 4. Where practical, the person or company against whom action is proposed will be informed of the action. Notwithstanding any remedial action taken, no relief from criminal proceedings will be offered as an inducement or reward.
- 5. All enforcement action taken will be recorded and put on file. Records of meetings will be kept. Actions will be recorded. Warning letters will be clear, simple, and unambiguous and signed by the appropriate person.
- 6. If a final warning is given it will be that and the failure to comply with the final warning that will be followed by enforcement action.
- 7. The full facts will be gathered and there will be no unnecessary delay.
- 8. Appropriate action will be taken against those who intentionally obstruct any person in the exercise of their duties under this Policy or any other legislation/byelaw/regulation.

4.4. Marine Environment Policy

As part of Forth Ports Limited the Marine Department is committed to fulfilling its environmental duties as required by the Harbours Act 1964 and other relevant legislation. Ports are required by Government policy to adopt appropriate balance between conservation of the environment and enabling sustainable economic growth.

4 SAFETY MANAGEMENT

4.3 Introduction

This Safety Management System (SMS) has been written for the The Ports of Tilbury and Tilbury2 Marine Department. However, as the implementation of the SMS progresses, changes and improvements will take place in operating activities and tasks, and the SMS will be updated to achieve its goal of continuous improvement.

Tilbury H&S department cover all aspects on land based incidents.

4.4 Implementation Policy

Implementation of the SMS at operational level necessitates the following:

- Communication of the PMSC philosophy and risk assessment of marine operations
- Ensuring that marine operations are being carried out as per procedures
- Ensuring that monitoring of performance is carried out
- Development of an audit system of the SMS
- Communication of safety issues through the marine H&S Committee, and encouragement of active participation of all marine personnel.

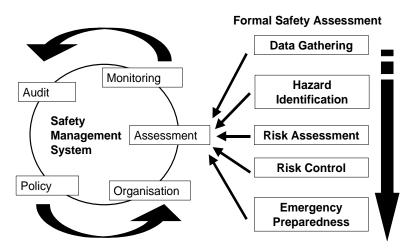
At senior management level, the following are required:

- Demonstration of visible commitment through motivation and active participation in internal and external safety initiatives
- Provision of adequate resources for implementation of the SMS
- Ensuring that the safety policy is implemented at all levels and that it is achievable and that it supports the operations.

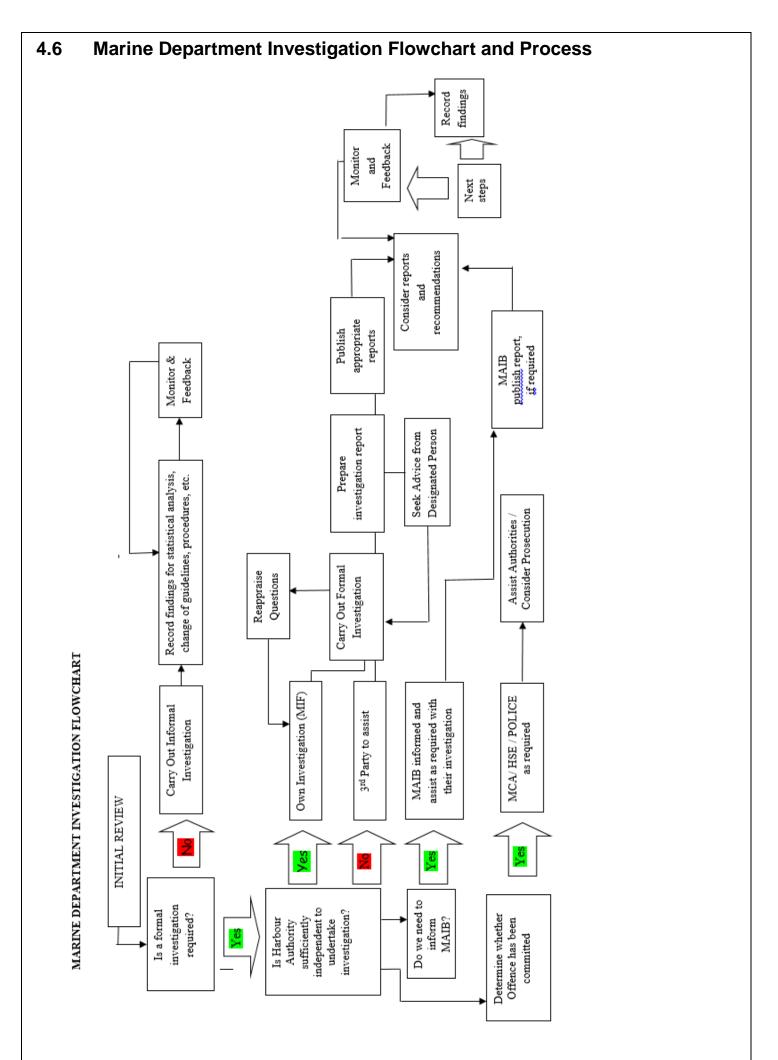
4.5 Continuous Improvement

The essence of the Safety Management System is the continuous improvement represented graphically in the figure below. The loop represents the SMS with its close relationship with the Formal Safety Assessment. The Assessments require regular monitoring to ensure that any changes are noted. An annual Audit of the SMS should be carried out to keep it up to date and relevant to all marine operations.

The Policy is the support given by POTTL Management to the SMS both in terms of resources and commitment. Organisation is the application of the SMS to all POTLL marine operations. This is a cyclical process, which should be continuous.



The Relationship between the SMS and the FSA



Marine Report Form (MRF) Process

The following should be carried out by the Duty Harbour master and Deputy Harbour Master:-

- 1. Open MRF and check for completeness add data as necessary request additional information as required
- 2. Identify and allocate next sequential number from spread sheet
- Save and label electronically in "Original MRF" folder:
 File Name Convention: Sequential MRF / number Vessel's Name /Additional identifier if there are
 several reports on the same incident
- 4. Categorise and record MRF data into Marine Incident Log

Ensure that the following follow-up items are actioned and recorded in the Marine Incident Log as appropriate:

- Report level marked 1 to 5 (based on consequence from risk assessment procedure copy on next page for reference). If this is not yet know then leave blank and investigator to complete after investigation.
- Highlight Port Liaison committees that the report should be discussed at.
- Primary cause section filled out as "To be determined". (Investigator to update when investigation complete).
- Complete MAIB section if applicable
- Summarise follow up action
- Update Data Analysis
- 5. Forward report to the Harbour Master for their attention.
- 6. If requested by investigator, retrieve VHF audio, CCTV, telephone recordings. These files should be saved into the Supporting Evidence Folder within the PMSC Records Section with same file name convention as original MRF.
- 7. Once investigator confirms that the investigation is complete:
 - Provide feedback directly to the report originator
 - Mark MRF as closed and feedback given on incident log

MRF Summaries

Prior to Liaison Committee meetings, compile relevant MRF summaries for lateral learning.

CONSEQUENCE

PEOPLE:

- 1 = None
- 2 = Minor, single slight Injury
- 3 = Slight, multiple moderate or single major injury
- 4 = Serious, multiple major injuries or single fatality
- 5 = Major, more than 1 fatality

PROPERTY:

- 1 = Negligible, < £2000,
- 2 = Minor, > £2000,
- 3 = Moderate, > £20,000
- 4 = Serious, > £200,000
- 5 = Major, > £2,000,000

ENVIRONMENT:

- 1 = Localised spill, < £2000
- 2 = Minor spill, Tier 1 local response
- 3 = Moderate spill, Tier 2 some outside assistance
- 4 = Moderate spill, Tier 2 greater outside assistance
- 5 = Major spill, Tier 3 national response

BUSINESS:

- 1 = Negligible impact, < £2000
- 2 = Minor impact, > £2000
- 3 = Moderate impact, > £20,000, bad local publicity, short term reduction of activity
- 4 = Serious Impact, >£200,000, bad widespread publicity, temporary Port Facility shutdown
- 5 = Major impact, > £2,000,000, port facility closes for more than 1-2 days
 - 1. Review entry to marine incident log, make changes as required
 - 2. Add brief written summary to written summary document
 - 3. If other parties were involved, an MRF may be need to be submitted by them, request additional submissions as required
 - 4. Request CCTV, phone, radio recordings from MIS if required
 - 5. Investigate incident
 - 6. Report to external bodies (MAIB, MCA, HSE, Police etc.) if necessary, and assist with their enquiries. Update Incident Log accordingly
 - 7. Carry out MIF if required
 - 8. Identify if risk assessments and/or procedures and guidelines are required to be reviewed (add to Incident Log). Consult other members of MMT for review.

- 9. Once investigation complete, update summary
- 10. Update Incident Log if any sections have been left blank or have changed during investigation. Primary cause and report level will need updated.
- 11. Inform Harbour Master that investigation is complete and that closeout statement (summary) should be sent to initial reporter.

4.7 The Designated Person

It is fundamental to an effective Safety Management System that each harbour authority should assign the function of a "Designated Person" to provide independent assurance that the safety management system is working effectively, and to audit the Port's compliance with the Port Marine Safety Code at regular intervals. He should also have direct access to the Board.

4.8 Auditing And Reviews

The policy of the POTLL is that the overall system will be audited on an annual basis for compliance with the requirements of the Port Marine Safety Code, by the Designated Person.

4.9 Incidents, Data and Investigation

On being advised or becoming aware of any marine related incident in the port, the DHM will collate all evidence and complete an Incident Report. This will then be submitted to both the Harbour Master and his Deputy.

The Deputy Harbour Master will carry out the investigation, completing section 2 of the report. This is so that the conclusion to the report is not based on any other factor than the evidence. If the Deputy HM is absent through illness, holiday or the position is vacant the HM will carry out this role.

Where an incident dictates the **DHM** will immediately contact the **MCA and MAIB**, this should be electronic format when possible.

The Harbour Master will receive the report and take action accordingly, which may include the following if not already actioned:-

- 1 The MCA is contacted in the event that there is a deficiency which may prejudice the safe navigation of the vessel, or which may pose a threat of harm to the marine environment as per The Merchant Shipping (Port State Control) Regulations 2011.
- 2 Reports will be forwarded to the MAIB in compliance with the Merchant Shipping (Accident Reporting and Investigation) Regulations 2012.

4.10 Promulgation of Port Safety Requirements

All Masters of vessels using the port are advised to regularly check the web site https://www.forthports.co.uk/marine/tilbury-port-authority/.

This site has all Notice to Port Users as well as a host of other relevant information. Additionally all new Notice to Port Users are emailed to all shipping agents and ships on a regular service.

5 RISK ASSESSMENT

5.1 Risk Assessment Methodology

Risk assessments are carried out as per the policies issued by the Port of Tilbury London Limited or by Forth Ports accordingly.

OM1	Bunkering / transfer of oil on board
OM2	Towage
OM3	Craft or objects in the water
OM4	Berthing and unberthing of vessels
OM5	Unauthorised craft
OM6	Loss of stability
OM7	Fire or collision
OM8	Inclement weather
OM9	Lock
OM10	Grounding
OM11	Berthing Advice / tug
OM12	Collision
OM13	Contact with Berths and Structures
OM14	Sinking / Flooding

Risk assessments are available on request from the Lockside Marine Office.

Contractors who work with in the port in marine related activities are required to provide the Harbour Master with a risk assessment for each individual activity they partake in. The Harbour Master will then approve these assessments before any activity commences.

All marine risk assessments are reviewed on an annual basis and contractor risk assessments should be encouraged to review them regularly.

A table of risks is reported to the board quarterly in the Tilbury marine report.

6 CONSERVANCY

6.1 Navigation Data

6.3.1 Enclosed Dock

Pertinent data relating to the enclosed dock area is described on the following:

- Dock plans maintained by the Port's Technical Services Drawing Office
- Hydrographic survey charts produced annually following survey by an independent firm of surveyors. Charts available for viewing at lockside office.

6.3.2 The Ports of Tilbury and Tilbury2 River Berths

Applicable data is described on the following:

- Navigational charts, including the dock, provided by the PLA
- Hydrographic Service Chart 334 Northfleet Hope
- Hydrographic Service Chart 335 Gravesend Reach (Upper)
- Hydrographic Service Chart 336 Gravesend Reach (Middle)
- British Admiralty Chart BA 2484 River Thames Hole Haven to London Bridge.

NB: This chart is maintained only for information purposes and is not kept corrected.

Published surveys listed above and others for the River Thames are available for reference from the PLA Webiste as follows:

http://www.pla.co.uk/Safety/PLA-Hydrographic-Service-Published-Surveys

6.3.3 River Thames – Tilbury Dock Entrance

Hydrographic surveys of the Lock bell-mouth are conducted for the Port by the PLA on a regular basis. The data is initially transmitted electronically to the POTLL Harbour Master shortly after a survey and a hard copy of the data is subsequently sent by post.

6.3.4 Ruling Depths

Following the Harbour Master's review of the results of a POTLL instigated hydrographic survey; each berth is allocated a "Ruling Depth". The survey data shown on the hydrographic charts for the enclosed docks are reduced to a defined impounded level, currently being 14.17m or 46'6". However these depths are not necessarily the permissible maximum draft of a vessel on a berth, as they make no allowance for under-keel clearance. Normally 0.3m is considered to be an adequate value whilst vessels are moving in the dock and this can be achieved, if necessary, by over-impounding the dock level for the period of such passage.

The Harbour Master maintains the list of the latest ruling depths, with a copy being kept in the Booking Log for referral by the Duty Harbour Master.

6.4 Meteorological Data

The lockside office has it's own dedicated weather monitoring station that gives live weather information and warnings (see https://www.forthports.co.uk/marine/tilbury-port-authority/) and records weather for post-incident analysis.

6.4.1 Weather Parameters for POTLL Operations

- Based upon experience, towage tugs generally regard a visibility of 2 cables as being the limit for safe towage. This figure is however, not an official guideline defined by any legal authoritative body. The final decision will always lie with the Master of that tug.
- In conditions of poor visibility, only one vessel will be permitted to move within the impounded dock, monitored on AIS display.

• Large vessels (slab sided) in excess of 18/20 knots use a 2nd tug. See the Code of Practice for Ship Towage Operations on the Thames 2015. The latest version can be downloaded from the PLA website at https://www.pla.co.uk/Safety/Codes-of-Practice

6.5 Aids to Navigation

6.5.1 Enclosed dock

No specific navigational risk requiring aids has been deemed to exist within the enclosed dock as:

- Provided lighting from the quaysides is considered adequate to illuminate waterway areas during darkness and periods of reduced visibility.
- Dock Pilots employed by Port users are known to the Harbour Master and relevant issues
 regarding water depths are discussed with them following the results of periodic surveys. These
 are also displayed within the Lockside Office.
- Navigation lights on Tilbury2 will be maintained by the Port, however the PLA will continue to report these to Trinity House – Via PANAR.

6.6 Wrecks

No wrecks currently exist within the enclosed Tilbury Docks or Tilbury2.

The Port however can invoke the powers (MSA 1995 section 252) to remove wrecks should any arise.

6.7 Dredging

The impounding strategy deployed by the POTLL in association with H R Wallingford minimises the amounts of silt drawn into the dock during impounding. However, it is impossible to avoid entirely and dredging is necessary to maintain client requirements with regards to depths.

Tilbury2 will have a maintained dredge programme to maintain a safe approach and berth box.

7 MANAGEMENT OF NAVIGATION

7.1 Tilbury Dock and Tilbury2

7.1.1 General

The enclosed docks at Tilbury are served by a single lock, which was opened to shipping in 1929 and has been in continuous operation since then.

Tilbury Lock is 304.8 meters long and 33.5 metres wide. The depth on the outer sill below Chart Datum is 7.3m and the lock is therefore capable of accepting vessels of PANAMAX dimensions. In practice, the largest vessels usually acceptable are 262.1 metres in length and beam up to 32.3 metres (dependant upon tug utilisation).

The lock works on a sluice / drain principle and raising the level in the lock is achieved by allowing water to enter from the enclosed dock through the inner sluices. The dock level is topped up by an automatic imponunding system which pumps water into the dock when the river level is above 11m. The outlet for the impounding pump line is at 39 Berth. Sluices and lock gates are operated by hydraulic power, with water pressure from the higher level in the dock assisting in keeping the gates closed against River level.

To speed up vessel transit time and minimise water loss, the lock can be divided into two sections by a middle pair of gates, giving work dimensions as follows:

Three quarter lock
 Quarter lock
 193.0m
 Max length without tugs is 165m
 Max length without tugs is 65m

Tilbury2 has 3 river berths, two for Ro Ro vessels and another deep water berth for bulk vessels.

7.1.2 Lock Parameters

The lock sill is the main criteria for vessels entering Tilbury Lock, with the gate sill height being 7.3 meters below Chart Datum. The river approaches to the lock generally have depths greater than the sill.

It is a requirement of the POTLL that vessels maintain an under keel clearances over the lock sill, as follows:

• 0.9m - flood tide 1.5m - ebb tide

The height of the tide required over the lock gate sill at the entrance, for a given draft, can be determined by applying the relevant UKC to that draft and then subtracting 7.3m from the result. To assist the calculation, the tide height required is set out in pre-calculated sheets. Care must be taken when consulting these sheets to ensure that the Ruling depth for the Lock/Bell-mouth is the applicable one currently in force.

Vessels exceeding these dimensions may undock up to HW+1hr subject to confirmation by the Duty Harbour Master.

None routine cargoes within the dock, where dictated the HM will request a meeting to review the operation at this point Method Statements and RA will be reviewed to ensure the operation is safe.

7.1.3 Tidal Data

The approximate tidal range of the River Thames is about 6 metres,

Tide details, referred to levels at Tilbury Dock Entrance	Height above Chart Datum
Mean High Water Springs	6.41 m
Mean High Water	5.88 m
Mean High Water Neaps	5.36 m
Mean Low Water Neaps	1.40 m
Mean Low Water Springs	0.49 m

Tidal windows for deep drafted vessels requiring a lock transit therefore vary considerably, depending on the state of the tide.

Ebb tide approaches are however allowed for vessels over 156m that have been approved by the Harbour Master.

7.1.4 General Guidelines for Vessels Length using the Lock

• The line of the lock is 097°/277° (True.)

• An arriving vessel has to turn through 130° to align with the lock before making its approach.

Inwards Flood Tide Max. length 262.1m, beam 32.3m

Ebb Tide Max. length 156m

(166m for 1st hour of ebb, subject to consultation)

Outwards Flood Tide No restriction

Ebb Tide Maximum length 189m & 29.5m beam

7.2 Standing Instructions to Marine Staff

7.2.1 Duty Harbour Master (DHM)

The Duty Harbour Master is to be aware of all vessel movements that are expected to take place within the port during his duty period. Where such movements concern unusual situations or events, he shall attend his location if possible, but should not leave the vicinity of the lock when a vessel is expected to transit unless for emergencies or other exceptional circumstances.

7.2.2 Attendance

Should a situation arise whereby the DHM considers that he should be away from the vicinity of the lock he will ensure that either the Harbour Master, his or her deputy or the Berthing Master is in attendance, and then remain in touch on channel 04 VHF at all times.

7.2.3 Conflicts of Interest

When events are to take place such that there may be a conflict of interest, the DHM should contact the Harbour Master or in his or hers absence their deputy in sufficient time for the matter to be resolved.

7.2.4 Monitoring Vessels

All vessels entering the lock, especially on the ebb tide, are to be closely monitored by the Berthing Master and dock operatives posted to assist as necessary.

7.3 Tilbury – Tidal Approach

Approaches to Tilbury Lock are advertised via POTLL Notices to Mariners and in Safe Working Procedures, these approaches are reviewed regularly in consultation with both Masters and Pilots and any amendments promulgated as required.

7.4 Procedure for Lock Transit

7.4.1 Lock Bookings

Due to the large number of vessel movements that can occur annually through the Tilbury Lock, ship's Agents are instructed to make a lock booking as early as possible. Bookings are accepted via telephone or e-mail to the Duty Marine Officer at the Lock-side office on the provided 24-hour number and are logged in the IPOS system.

Particular note needs to be made of any Pilotage Exemption Certificate numbers.

Once an outward lock booking has been agreed with the Duty Marine Officer, the Agent of vessels requiring a River/Sea Pilot will then book this requirement direct with the PLA Pilots. The agent of an inward vessel requiring a Dock Pilot will make the necessary arrangements.

Should there subsequently be any change to either the vessel's ETA or to its draft, Agents are instructed to advise the Duty Marine Officer, as soon as possible.

Twice a day at 00:01 and 16:00 hours, a Shipping Programme sheet is sent to the various interested parties.

7.4.2 Inward Bound Vessels

Irrespective of a vessel's obligations to report positions when in River to Port Control London, Masters must separately advise Tilbury Control on VHF Channel 04 as follows:

- Approximately 1 hour before arriving at the lock, confirming ETA and to receive docking information.
- When passing Tilbury landing Stage, in order that the method of approach into the lock can be confirmed.

VHF Channel 04 should be monitored throughout the locking-in and berthing operation. When operating with the assistance of tugs VHF Ch15 is used proceeding out into the river and VHF Ch17 is used when proceeding into the dock.

7.4.3 Outward Bound Vessels

Towards the end of cargo operations, Masters should confirm their ETD with Tilbury Control on VHF Channel 04 and in any event advise Tilbury Control 15 minutes prior to being ready to sail. Under no circumstances should they proceed to the lock without being granted permission by the Duty Harbour Master

The Duty Harbour Master must be informed when the vessel is actually leaving a berth and VHF Channel 04 should be monitored throughout the passage to the lock.

Where applicable, vessels must not move off a berth until any quay cranes are clear/boomed up.

7.4.4 Departure Tilbury Lock

The following Procedure for leaving Tilbury Lock has been agreed with the Port of London Authority:

- a) When a departing vessel is secured in the lock and levelling down, the Master or Pilot must call Port Control London VTS on VHF Channel 68 using the vessel's main VHF set.
- b) In addition to normal voyage reporting requirements, the transmission shall include the estimated time readiness for departing the lock and which way it intends to swing.
- c) On receipt of the above information, Port Control Centre at Gravesend (PCC), which has a call sign "London VTS" will broadcast on Channel 68 indicating that vessel(s) will be departing from Tilbury Lock giving the estimated time of departure. At this stage it may be necessary for the PCC London VTS to manage approaching traffic in order to avoid conflict.
- d) Once the lock gates are open the vessel will report to "London VTS", who will respond automatically with a traffic report. Should conflict still exist, the vessel shall liaise with traffic in the area to arrange how the conflict is to be resolved. These transmissions will be monitored by "London VTS" and if they have any doubt as to the safety of any proposed action, the

vessel will be held in the lock until the situation has been resolved.

- e) As a result of the actions in (c) above, a delay is in incurred, the vessel shall make a further call to the "London VTS" when movement out of the lock is about to commence.
- f) A further re-broadcast will be made by "London VTS", in all cases, when the vessel is about to depart the lock.

7.4.5 Verification of Vessel draft

At the time of a lock booking, the Agent declares the arrival draft of the vessel as is best known. The information is necessary to ensure a sufficient under-keel clearance over the lock gate sill. However, it is always possible that a vessel could arrive at a draft greater than that originally known to the Agent. Accordingly, when initial contact is made with a vessel, the DMO is to confirm the exact arrival draft of the vessel at the lock.

7.5 Tilbury Cruise Terminal

The Port Security Plan, issued by the POT Police describes the procedures to protect Cruise Liners, Passengers and Crews at the Port of Tilbury.

During such time that a cruise vessel is at this terminal, movements of other craft onto the Stage will be determined with regards to the proximity of the "Restricted Zone".

When a booking is made for a Cruise vessel, the Cruise Manager sends a emailed notification of the proposed berthing plan to the various interested parties including the following:

- Marine Department
- > PLA Pilots
- ➤ POTLL Police
- ➤ Ships Master

The berthing plan will show the exact position that the vessel is to be berthed and will also indicate the position of any fenders that the ship owner may wish to have installed for the visit.

7.6 Tilbury2

Vessels arriving at Tilbury2 Ro Ro berth will be on a scheduled service and the Bulk terminal will on a periodic basis.

The Port Security Plan, issued by the POTLL Police describes the procedures to protect these vessels whilst at the Port of Tilbury.

Vessels using Tilbury2 will be booked in via the lock side office and be reordered in the IPOS system.

Berth plans indicating which berth will be allocated will be sent to the Marine department in advance of the arrival so that the ship can be notified.

8 LOCK OPERATION

8.1 Lock Operating Procedure

8.1.1 Lock Gate Rules

Two sets of lock gates and all sluices must always remain closed when the lock is not being used.

8.1.2 Transit

When the lock is required for transit, in or out, the Berthing Master will discuss with the approaching vessel as to which side of the lock the vessel should be made fast. He will advise the vessel whether the full, three quarter or quarter lock has been made ready according to circumstances of weather, vessel size, dock level and any other parameters that may from time to time be relevant to safe transit. Although any of the forgoing may be discussed as necessary, the decision of the Duty Harbour Master regarding use of the lock will be final.(i.e. a Direct Direction).

8.1.3 Operating Sluices

On the near approach of the expected vessel, the second set of gates will be opened. As soon as the vessel or vessels are secured in the lock, the gates will be closed and care taken to see they are full mitred both by visual observation and the indicator lights on the control panel. When everything is seen to be in order the sluices may be operated to level the lock up/down.

8.1.4 Proceeding in the River

When the level has been achieved the appropriate gates should then be opened and the sluices closed. The vessel can then proceed to the dock or River.

8.1.5 Attendance at Gates

Lock-side personnel must remain in attendance to ensure that each movement is fully concluded and all motors have shut down.

8.1.6 Familiarisation

Marine Personnel are to familiarise themselves with the various modes of power and control of the lock operating machinery together with emergency action that may become necessary should there be a total power failure which results in the integrity of the Port or of a ship in the lock being endangered. A copy of the POTLL booklet entitled Lock Gate Operation is maintained within the Work Instruction file.

8.1.7 Run In

During run-ins it may become necessary to have all three sets of gates cracked open (Section 12.2 – Exceptional Tides refers). Under no circumstances shall all three sets of gates be fully open simultaneously.

8.2 Impounding System

8.2.1 Leakages

In common with all enclosed dock systems, the water level in the dock is subject to draw down due to successive locking operations and other possible leakages. Make up water is needed to maintain the level at/near the authorised working level.

8.2.2 Dock Level

In the case of Tilbury, water is abstracted from the River Thames by an automatic pump control system and the dock impounded on each tide when the dock level is below 14.17m or 46'6" and a predetermined River Level is reached.

8.2.3 Minimum Dock Level

The dock level must not be voluntarily reduced to below 13.72m or 45'00" without the authorisation of both the Harbour Master and the Port Engineer.

8.2.4 Impounded Silt

Impounded river water is charged with silt and this is transported in suspension into the dock basin where it settles and over a period of time, causes a loss of depth.

8.2.5 Override Facility

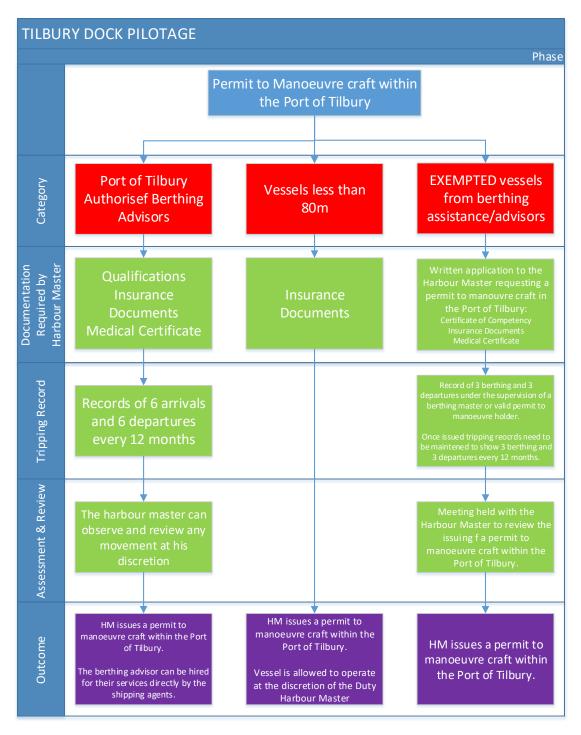
When deep draft vessels are expected, in order to improve the safety margin of unc during in-dock transit, the facility to over-impound the dock level by and addition available, using the override facility.	
8.2.6 Recording of Overriding Should it be necessary to ever use the over-ride facility in order to pump throug period, the reason for such must be recorded on the provided record sheet.	h the High Water
period, the redeel for each much be recorded on the previous record effect.	
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9 MARINE SERVICES

9.1 Tilbury Dock Pilotage and Tilbury2

UK legislation – the **Pilotage Act 1987**; describes the meaning of a "competent harbour authority", a harbour with 'general duties as to the provision of Pilotage services' and a "harbour authority". The Port of Tilbury London Ltd is a 'harbour authority' and without the 'powers' to employ, train, exam and license Pilots, does not have the ability within the legislation to provide a Pilotage service.

In the absence of the 'powers' introduced above the Harbour Master has a requirement for certain vessels to contract 'berthing assistance' while operating within the confined dock or an exemption ticket known as a 'Permit to Manoeuvre'. The following diagram illustrates these requirements:



Although Berthing Advisors are employed direct by a Ship owner, requirements for standards required of the Berthing Advisors operating within the POTLL will be set by the Harbour Master.

Tilbury2 will be under the direct pilotage of the PLA, and comprehensive MOU has been agreed between both parties and their responsibilities associated with pilotage.

9.2 Towage

Towage is divided into two areas – River Towage and In-Dock Towage. All tugs operators must have a permit to Manoeuvre before they can operate within the Port.

The Port also uses the set Guidelines on Towage set By the PLA "Code of Practice for Towage and Ship Towage", which are found on the marine web site.

Further information can be obtained from the Port of London Authority's website at https://www.pla.co.uk/Safety/Codes-of-Practice.

9.3 River Towage

Tugs or the number of tugs utilised is not compulsory, however, there is a "Code of Practice for Ship Towage Operations on the Thames, 2015" prepared by the PLA, which is the general guideline for tug utilisation. The code is not a rigid set of rules to be followed on all occasions. The final decision on the number of tugs to be used will rest with the Master of the ship, in consultation where appropriate with the pilot, who will take account of the prevailing weather and tidal conditions.

Entry to the Lock Mouth is now also covered by NAWRG No51 which specifies tug numbers and bollard pulls for recommended safe entry. This RA also applies to the River Berths on the Thames under PLA jurisdiction.

Vessels engaged in towage activities from the lock out into the river are required to operate on VHF Channel 15 after contact with the berthing master is made on VHF Channel 04.

9.4 In Dock Towage

Tugs are compulsory under certain wind conditions, Notice to Mariners No19 2013. The use of tugs on a daily basis when conditions allow is at the discretion of the Master with the advice of the Berthing Advisor. Contractual terms relating to the use of in-dock tugs are contained within a Memorandum of Understanding drawn up between the POTLL and the Towage companies.

Vessels engaged in towage activities with the dock are required to operate on VHF Channel 17 after contact with the berthing master is made on VHF Channel 04.

9.5 Salvage

Although the Port maintains one marine craft, its capability to remove wrecks/small craft would be limited to attendance only. Accordingly, should such a service be required, outside assistance would be sought.

9.6 Mooring Services

This service is provided by a number of companies listed on the marine web site.

All mooring companies must be authorised by the Harbour Master before permission is granted to work within the Port or on the River berths associated with the Port. These approved mooring companies are required to adhere to the requirements of the Port's Mooring Manual which can be downloaded from the Port's marine website at https://www.forthports.co.uk/marine/tilbury-port-authority/.

Masters are always advised that the use of ships crew to moor/unmoor their own vessels may contravene the requirements of Regulation 4(2) of the Merchant Shipping (Means of Access) Regulations 1988, if access to/from the shore is not provided in a safe manner.

Certain berths operated by the Port of Tilbury operate a mooring service which complies with the Port of Tilbury Mooring Manual which can be downloaded from the Port's marine website at https://www.forthports.co.uk/marine/tilbury-port-authority/.

9.7 Diving Operations

The Port maintains no divers as members of staff. Should there be any requirement for a diver, outside contractors will be used. Diving Operations within the Port may only be conducted under the requirements of the Diving at Work Regulations 1997. The Health and Safety At work Act 1974. The Management of Health and Safety at Work Regulations 1999.

Before any diving operation takes place, a Permit has to be issued by the Harbour Master's office. However, in order that this can be considered for issue, a formal checklist has to be completed in the presence of the contractor. The POTLL Health & Safety Standards Guide, Permit to Work Procedures refers.

9.8 Dangerous Goods in Harbour Areas Regulations 2016 (DGHAR)

9.8.1 Notifications

These regulations require that notification be given to the Harbour Master at least 24 hours before entry of a dangerous substance into the Port, whether import, export or transit.

Agents requesting such permission will do so by email to the Marine department. The Duty Officer, will determine the suitability of such substance to enter the POTLL.

9.8.2 DGHAR Incidents

Under DGHAR Regulations, the Master of a vessel carrying a dangerous substance is required to inform the Harbour Master and the berth operator, of any untoward incident which has occurred on his vessel. An untoward incident means an incident involving or threatening the containment of a dangerous substance, which might create in the harbour area a risk of serious personal injury or risk to the safety to the vessel.

10 MARINE PERSONNEL

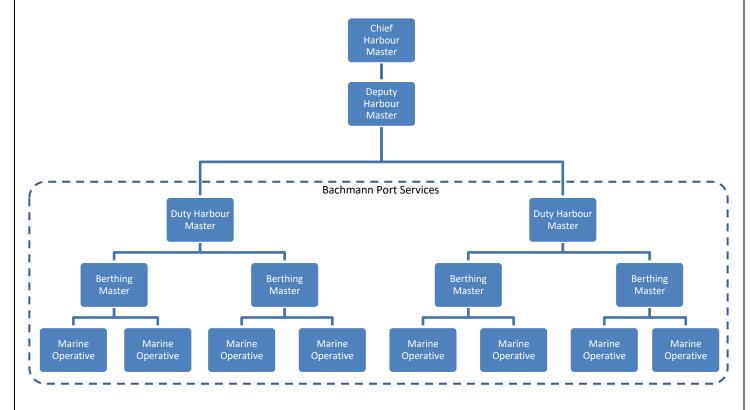
10.1 Marine Department Organisation

The Port of Tilbury Marine department consist both Port of Tilbury London Ltd employed staff and the contracted services of Bachmann Port Services. The staff provided by Bachmann Port Services are accommodated on site in two shifts in order to deliver a 24 hour operation of the lock which is fundamental to overall operation of the port. This includes two watches who work a week on and a week off with each watch split into a day and night shift. One Duty Harbour Master is in overall charge of the Bachmann Port Services staff and they report directly to the Harbour Master and his Deputy.

All employees of Bachmann Port Services have served at sea up to and including command providing a wealth of maritime knowledge and experience which vital to the shipping operation and the work of the Marine Department.

The Harbour Master is the senior manage and head of the Marine Department who reports directly to the Site & Asset Manager with direct access to the Board of Directors as per the requirements of the Port Marine Safety Code. Reporting to the Harbour Master is a Deputy who has the same responsibilities and statutory powers of the Harbour Master and can cover for the Harbour Master during times of absence or sickness.

The organisation of the Marine Department is illustrated as follows:



10.2 Harbour Masters Powers – In his absence

In the absence of the Harbour Master the following are empowered to issue "Special Directions" on his behalf:

- 1 Deputy Harbour Master
- 2 Duty Harbour Master

10.3 Marine Department Job Descriptions

10.3.1 Harbour Master Job Description
REPORT'S TO: Asset & Site Director, Port of Tilbury

Purpose of job:

Having regard for local, national and international legislation, the Port Marine Safety Code and the Company's procedures, the Harbour Master is responsible to the Group Chief Operations Officer and Regional Director, for the planning, operational and cost effective management of the Marine Department and ensures that areas make a positive contribution to the commercial success of the Port.

Empowered by the legislation, the Harbour Master has responsibility for the safe movement and berthing of all vessels within the port, the reaction to and directing a prompt response to all marine incidents and, instigating an appropriate investigation in accordance with the Ports and industry procedures and the Port Marine Safety Code.

The Marine Department is responsible for the daily, safe movement and berthing of all vessels within the port, berth preparation and marine structure maintenance, in accordance with the ports advertised policies and procedures required by the Port Marine Safety Code.

The Department is responsible for the approval and qualification of all hazardous cargos shipped through the port in accordance with the Dangerous Substances in Harbour Areas regulations 1987 and, responds to all marine emergencies.

Currently based from either the Lock Side, Marine Office when required but also co-located and working with the Port Engineer and his staff at Leslie Ford House, to negotiate and manage annual hydrographic surveys, regular 'capital' and 'maintenance' dredging projects, together with a professional 'marine' input into the development and re-development of the port areas.

As a 'central services manager', to liaise with colleagues and customers, to advise of marine matters and resolve issues and conflicts.

Responsible for the preparation, presentation, administration and monitoring of the Marine department Asset budgets and to seek additional income from marine services, mooring, lay-up of vessels and other marine business.

10.3.2 Deputy Harbour Master Job Description

REPORT'S TO: Harbour Master

Purpose of job:

Having regard for local, national and international legislation and the Company's procedures, the Deputy Harbour Master is responsible to the *Harbour Master*, for the planning and operational management of the Marine Department, together with the *Duty Harbour Master(s)* and all contract staff. Empowered by the legislation, the Deputy Harbour Master supervises the safe movement and berthing of all vessels within the port, reacting to and directing a prompt response to all marine incidents and instigating an appropriate investigation.

Illustrative dimensions:

- The Deputy Harbour Master monitors the shift roster and the management, supervision and discipline of all Marine personnel. The post holder also monitors payments against budgetary constraints, supervises the 'day work' function of the department and, co-ordinates the repair and maintenance requests for department equipment.
- The Department is responsible for the continuous, daily safe movement and berthing of all vessels within the port, berth preparation and marine structure maintenance, in accordance with the ports advertised policies and procedures required by the Port Marine Safety Code.
- The Department is responsible for the approval and qualification of all hazardous cargos shipped through the port in accordance with the Dangerous Substances in Harbour Areas regulations 1987 and, responds to all marine emergencies. (DGHA Regulations 2016).
- Together with the ports Technical Services, the Department manages the collection, consolidation and recycling of ship and port generated waste products and other port services.

Qualification, knowledge and experience:

With previous port management experience and **Minimum** qualifications to; *Master (NC) 11/2 CoC;* or Chief Officer (unlimited) 11/2 CoC; or equivalent MOD (Navy) qualifications, or UKHMA recognised Harbour Master qualification and an ML5, MCA medical certificate, together with:

- Master in near continent 'short sea or home trade' vessels or port towage.
- Chief Officer of a larger container, bulk or passenger vessel, or Pilotage.
- MOD (Navy) or equivalent, relevant service.
- Previous experience as Harbourmaster or Deputy Harbourmaster.

Key result areas:

- With the Duty Harbour Master(s), required to make marine interpretation of all shipping situations, offering advice and if required giving and enforcing 'directions' to Master's, their Pilots and Agents to ensure the safe and efficient movement and mooring of all ships in all operational areas of the Port.
- With the Harbour Master, monitors the competence of Masters and POTLL Approved Berthing Advisors within the Dock, and investigates all marine incidents with the aim of ensuring corrective actions are taken to minimise the chance of recurrence. To ensure that comprehensive reports are made and if necessary forwarded to MAIB as required.
- To assist the Harbour Master, to establish an informed, professional relationship with the Port's
 'asset managers', berth operators and tenants, contractors and Port of London staff and Berthing
 Advisors to ensure as far as possible, the fulfilment of their customer requirements in respect of
 efficient movement of vessels from lock to berths and vice-versa, whilst keeping within the safe
 operating parameters established within the Port Marine Safety Code.
- To provide statistical reports to the Harbour Master relating to port usage, towage and any others
 required on an ad-hoc basis. Provide advice to Assets on any marine-related matters as may be
 required. Make ship database entries to the Port's accounting system (IPOS) as a licensed user.
- To monitor the reporting of technical deficiencies at the Lock side, berths and other marine assets, to ensure that provided repairs are timely, cost effective and satisfactory. With the *Duty Harbour Master(s)* and *Berthing Master(s)*, ensure minimal disruption to shipping during repairs.
- To ensure that the Duty Harbour Master(s) and Berthing Master(s), meet and co-ordinate the safe
 movement and berthing of all vessels through the lock and onto the allocated berths, liaising with
 Masters, Pilots, Berthing Advisors and Agents.
- The monitoring and co-ordination of all other marine operations which may impact on the safe operation of the port and to ensure that the Ports Oil and Chemical response, fire on board vessels, surge tide incidents and diving operations are undertaken in accordance with the Ports procedures.
- With the Duty Harbour Master(s) and Berthing Master(s), to undertake regular, patrols both afloat
 and ashore, checking berths prior to arrival and reacting appropriately to any situation that could
 impact upon safe shipping movements.
- Together with the *Technical Services*, the Department manages the collection, consolidation and recycling of ship and port generated waste products and other port services.
- With the *Harbour Master* to monitor staff performance and whilst understanding individual capabilities, knowledge and experience, recommending the appropriate training when required to ensure that the ports requirements are achieved.

- With the *Harbour Master* to ensure and administer the appropriate disciplinary procedures are undertaken if required.
- To deputise for the *Harbour Master* as required.

Major tasks and problems

- Assisting the *Harbour Master* in drafting and executing new, and reviewing established policies and procedures. Responsible for the organisation and supervision of contract Marine staff.
- Liaise with *POTLL Asset Managers*, the Port of London and ships agents to ensure all information is passed to Masters and their pilots to ensure all shipping movements are undertaken without delay and in a safe and efficient manner.
- In consultation with the *Duty Harbour Master(s)*, responsible for re-organisation and control of traffic after unforeseen delays, in order to satisfy all interested parties and to maintain the efficient utilisation of the lock during a busy shipping programme.
- To summon and co-ordinate emergency services in the event of any incident which might affect the operation of the port, until relieved by senior POTLL management.

Supporting tasks;

- The Deputy Harbour Master is the link between the Contractor and POTLL Management and will be available to support, assist or deputise for those officers when required.
- To undertake general clerical work associated with daily operations, impounding water times, tidal records, shipping movements and the maintenance of a computerised vessel database (IPOS).
 To ensure that lock-side communications systems, VHF R/T, CCTV etc are in good order.
- To ensure that operations are carried out in such a manner as to minimise damage to Company property, but where such damage does occur, to assess this and liaise with the appropriate Technical Services, in order to recover finances.
- With the *Duty Harbour Master(s)*, to liaise with Port of London Officers and ships agents for all ship movements and marine requirements and, with Towage Companies, to co-ordinate vessel movement where tugs are being utilised.

Decision making;

- As the Deputy to the Harbour Master, to represent the port for all marine matters on a 'day to day'
 and 'out of hours' basis and, in consultation with Duty Harbour Master, to accept/reject vessels
 for a variety of reasons including size, tidal restrictions, weather conditions and working
 conditions.
- In consultation with the *Harbour Master*, the closure of the port in cases of adverse weather, serious damage or in the event of a major incident in the area.
- Call out and liaison with the Emergency Services and POTLL Police and H&S Officers.
- Responsible for the management, discipline of and, allocation of all contract staff.
- The continual monitoring of health and safety and the promotion of safety awareness of self and others.

Additional information;

- The position is a 'hands-on' position requiring the post holder to be capable of multi-tasking and to become involved in all aspects of the departments routines and responsibilities, including command of the ports working craft and to board vessels by ladder to observe or assist Masters and Berthing Advisors.
- Normally to work office hours (plus), but may be required to work weekends and out of hours and be contactable out of hours, to provide any necessary support to the Duty Watch. To be able to take over the watch keeping duties of a Duty Officer should the need arise.
- To relieve the Duty Harbour Master for short notice sick leave when necessary until a replacement is organised.
- The position requires computer literacy, accuracy, flexibility with a good understanding of Microsoft Word and Excel to produce statistical information and the ability to organise within a multi-functional department.
- A requirement to wear the Company's uniform which, together with PPE and other protective clothing, to be provided.
- Comprehensive knowledge of shipping/towage operation and Passenger shipping would be advantageous.
- Awareness of risk assessment methodology. Maintain marine department C.O.S.H.H. register.

10.3.3 Duty Harbour Master Job Description

REPORT'S TO: Harbour Master and/or their Deputy

Purpose of job;

Having regard for local, national and international legislation, the Company's procedures and responsible to the *Deputy Harbour Master with whom l*ead a shift of contract Berthing Masters and Marine Operatives, managing the effective daily operation of the Marine Department. Empowered by the legislation, the Duty Harbour Master supervises the safe movement and berthing of all vessels within the port, reacting to and directing a prompt response to all marine incidents in accordance with the Ports and industry procedures and the Port Marine Safety Code.

Illustrative dimensions;

Based from and resident in the Lock-side office and accommodation, working within a duty 'watch' system of one week on duty, providing a continuous 24 hour presence, followed by one week off duty;

- The Duty Harbour Master is responsible for the management, supervision and discipline of two *Berthing Master(s)* and additional *Marine Operatives*.
- The Department is responsible for the continuous, daily safe movement and berthing of all vessels within the port, berth preparation and marine structure maintenance, in accordance with the ports advertised policies and procedures required by the Port Marine Safety Code.
- The Department is responsible for the approval and qualification of all hazardous cargos shipped through the port in accordance with the Dangerous Substances in Harbour Areas regulations 1987 as ammended and, responds to all marine emergencies.
- Together with the ports Technical Services, the Department manages the collection, consolidation and recycling of ship and port generated waste products and other port services.

Qualification, knowledge and experience;

At Minimum Qualified to; Master (near coastal) 11/2 CoC; or Chief Officer (unlimited) 11/2 Coc; or MOD(Navy) qualifications and holds a current ENG 1, or an ML5, MCA medical certificate, with previous experience as;

- Master in port relevant 'short sea or home trade' vessels, or port towage.
- Chief Officer of a larger container, bulk or passenger vessel, or Pilotage.
- Previous relevant port management, MOD(Navy), or equivalent, relevant service.

Key result areas;

- With the Senior Harbour Master and or their deputy, as the 'Duty Harbour Master', required to
 make marine interpretation of all shipping situations, offering advice and if required giving and
 enforcing 'directions' to Master's, their Pilots and Agents to ensure the safe and efficient
 movement and mooring of all ships in all operational areas of the Port.
- With the Berthing Master(s), to meet and co-ordinate the safe movement and berthing of all
 vessels through the lock and onto the allocated berths, liaises with Masters, Pilots and Agents.
- The monitoring and co-ordination of all other marine operations which may impact on the safe operation of the port and to ensure that the Ports Oil and Chemical response, fire on board vessels, surge tide incidents and diving operations are undertaken in accordance with the Ports procedures, modified if required as an incident develops.
- With the Senior Harbour Master and their deputies to establish an informed, professional relationship with the port's 'asset areas', berth operators and tenants, contractors and Port of London staff.
- With the *Berthing Masters*, to maintain detailed 'logs' of all shipping movements and to initiate investigations of all marine casualties or incidents, accidents or dangerous occurrences.
- With the *Berthing Master(s)*, to undertake regular, daily patrols both afloat and ashore, checking berths prior to arrival and reacting appropriately, or reporting any situation that could impact upon safe shipping movements.
- To ensure that any defects to lock or marine infrastructure, marine craft or vehicles are reported to the appropriate *Technical Services*, to monitor rectification and to ensure that there is minimal detraction to the marine service provided by the department.
- Together with the *Technical Services*, the Department manages the collection, consolidation and recycling of ship and port generated waste products and other port services.
- With the *Deputy Harbour Master*, to monitor staff performance and whilst understanding individual capabilities, knowledge and experience, recommending the appropriate training when required to ensure that the ports requirements are achieved.
- With the *Harbour Masters and Bachmann Recruitment representatives*, to ensure and administer the appropriate disciplinary procedures are undertaken if required.

Major tasks and problems;

 Responsible for the organisation and supervision of contract Marine staff, having due regard for holidays and absence, to be able to carry out lock operations and ancillary work such as berthing, dock patrols and watering.

- With the Senior Harbour Master and their deputies, to liaise with the Port of London and ships agents to ensure all information is passed to Masters and their pilots to ensure all shipping movements are undertaken without delay and in a safe and efficient manner.
- In consultation with the *Deputy Harbour Master*, responsible for re-organisation and control of traffic after unforeseen delays, in order to satisfy all interested parties and to maintain the efficient utilisation of the lock during a busy shipping programme.
- To summon and co-ordinate emergency services in the event of any incident which might affect the operation of the port, until relieved by senior marine or POTLL management.

Supporting tasks;

- The 'Duty Harbour Master' is the link between the Contractor and POTLL Management and will be available to support, assist or deputise for those officers when required.
- To undertake general clerical work associated with daily operations, impounding water times, tidal records, shipping movements and the maintenance of a computerised vessel database. To ensure that lock-side communications systems, VHF R/T, CCTV etc are in good order.
- To ensure that operations are carried out in such a manner as to minimise damage to Company property, but where such damage does occur, to assess this and liaise with the appropriate Technical Services, in order to recover finances.
- With the Berthing Masters, to liaise with Port of London Officers and ships agents for all ship
 movements and marine requirements and, with Towage Companies, to co-ordinate vessel
 movement where tugs are being utilised.

Decision making;

- As the 'Duty Harbour Master', to represent the port for all marine matters on a 'day to day' and
 'out of hours' basis and, in consultation with Senior Harbour Master(s), to accept/reject vessels
 for a variety of reasons including size, tidal restrictions, weather conditions and working
 conditions.
- In consultation with the Senior *Harbour Master*, the closure of the port in cases of adverse weather, serious damage or in the event of a major incident in the area.
- Call out and liaison with the Emergency Services through POTLL Police and H&S Officers.
- As the contractors representative, responsible to the *Deputy Harbour Master* for the management, discipline of and, allocation of all contract staff.
- The continual monitoring of health and safety and the promotion of safety awareness of self and others.

Additional information;

The position is a 'hands-on' position requiring the post holder to be capable of multi-tasking and to become involved in all aspects of the departments routines and responsibilities, including command of the ports working craft and to board vessels by ladder to observe or assist Masters and Dock Pilots.

A seven day 'watch', to include statutory rest and meal breaks, acknowledging the requirements of the Working Time Regulations 1998 but accepting the 'Exceptions' outlined in Part 2 of the regulations;

- 18.(a)(i) Excluded sectors.
- 21.(c)(ii) Other special cases.

The post will attract a daily allowance of £10 for food and a weekly travel allowance of up to £50.

The position requires computer literacy, accuracy, flexibility and the ability to organise within a multi-functional department.

A requirement to wear the Company's uniform which, together with PPE and other protective clothing, will be provided.

10.3.4 Berthing Master Job Description

REPORTS TO: Duty Harbour Master

Purpose of job;

Having regard for local, national and international legislation and the Company's procedures the Berthing Master supervises the duty staff and assists the *Duty Harbour Master* with the effective daily operation of the Marine Department. The Berthing Master supervises the safe movement and berthing of all vessels within the port, reacting to and directing a prompt response to all marine incidents in accordance with the Ports and industry procedures and the Port Marine Safety Code.

Illustrative dimensions;

Based from and resident in the Lock-side office and accommodation, working within a duty 'watch' system of one week on duty, providing a continuous, 24 hour presence, followed by one week off duty;

- The Berthing Master is responsible for the supervision of the *Marine Operatives* on watch.
- The Department is responsible for the continuous, daily safe movement and berthing of all vessels within the port, berth preparation and marine structure maintenance, in accordance with the port's advertised policies and procedures required by the Port Marine Safety Code.
- The Department is responsible for the approval and qualification of all hazardous cargos shipped through the port in accordance with the Dangerous Substances in Harbour Areas Regulations 1987 as amended and, responds to all marine emergencies.
- Together with the ports Technical Services, the Department manages the collection, consolidation and recycling of ship and port generated waste products and other port services.

Qualification, knowledge and experience;

Qualified to; Officer of the Watch II/1 Coc; or MOD (Navy) qualifications and a current ENG 1, or an ML5, MCA medical certificate, with previous experience as:

- Chief Officer in 'short sea or home trade' vessels, or port towage.
- Officer of the Watch of a larger container, bulk or passenger vessel, or Pilotage.
- Previous relevant MOD (Navy) or equivalent, relevant service.

Key result areas;

 With the 'Duty Harbour Master', required to make marine interpretation of all shipping situations and to ensure the safe and efficient movement and mooring of all ships in all operational areas of the Port.

- To meet and co-ordinate the safe movement and berthing of all vessels through the lock and onto the allocated berths, liaises with Masters, Pilots, Berthing Advisors and Agents.
- The monitoring and co-ordination of all other marine operations which may impact on the safe operation of the port and to ensure that the Ports Oil and Chemical response, fire on board vessels, surge tide incidents and diving operations are undertaken in accordance with the Ports procedures, modified if required as an incident develops.
- To establish an informed, professional relationship with the port's 'asset areas', berth operators and tenants, contractors and Port of London Authority staff.
- With the *Duty Harbour Master*, to maintain detailed 'logs' of all shipping movements and to initiate investigations of all marine casualties or incidents, accidents or dangerous occurrences.
- To undertake regular, daily patrols both afloat and ashore, checking berths prior to arrival and reacting appropriately, or reporting any situation that could impact upon safe shipping movements.
- To ensure that any defects to lock or marine infrastructure, marine craft or vehicles are reported to the appropriate *Technical Services*, to monitor rectification and to ensure that there is minimal detraction to the marine service provided by the department.
- Together with the *Technical Services*, the Department manages the collection, consolidation and recycling of ship and port generated waste products and other port services.

Major tasks and problems;

- Responsible for the supervision of their 'watch', to carry out lock operations and ancillary work such as berthing, dock patrols and bunker check sheets
- To liaise with the Port of London and ships agents to ensure all information is passed to Masters and their pilots to ensure all shipping movements are undertaken without delay and in a safe and efficient manner.
- In consultation with the *Duty Harbour Master(s)*, responsible for re-organisation and control of traffic after unforeseen delays, in order to satisfy all interested parties and to maintain the efficient utilisation of the lock during a busy shipping programme.
- To summon and co-ordinate emergency services in the event of any incident which might affect the operation of the port, until relieved by senior marine or POTLL management.

Supporting tasks;

- To undertake general clerical work associated with daily operations, impounding water times, tidal records, shipping movements and the maintenance of a computerised vessel database. To ensure that lock-side communications systems, VHF R/T, CCTV etc are in good order.
- To ensure that operations are carried out in such a manner as to minimise damage to Company property, but where such damage does occur, to assess this and liaise with the appropriate Technical Services, in order to recover finances.
- With the Duty Harbour Master, to liaise with Port of London Officers and ships agents for all ship
 movements and marine requirements and, with Towage Companies, to co-ordinate vessel
 movement where tugs are being utilised.

Decision making;

- As a 'Duty Officer', to represent the port for marine matters on a 'day to day' and 'out of hours' basis and, in consultation with the *Duty Harbour Master*, to recommend the acceptance/rejection of vessels for a variety of reasons including size, tidal restrictions, weather conditions and working conditions.
- Call out and liaison with the Emergency Services, through POTLL Police and H&S Officers.
- The continual monitoring of health and safety and the promotion of safety awareness of self and others.

Additional information;

The position is a 'hands-on' position requiring the post holder to be capable of multi-tasking and to become involved in all aspects of the departments routines and responsibilities, including command of the ports working craft and to board vessels by ladder to observe or assist Masters and Dock Pilots.

A seven day 'watch', to include statutory rest and meal breaks, acknowledging the requirements of the Working Time Regulations 1998 but accepting the 'Exceptions' outlined in Part 2 of the regulations;

- 18.(a)(i) Excluded sectors.
- 21.(c)(ii) Other special cases.

The post will attract a daily allowance of £10 for food and a weekly travel allowance of up to £50.

The position requires computer literacy, accuracy, flexibility and the ability to organise within a multi-functional department.

A requirement to wear the Company's uniform which, together with PPE and other protective clothing, will be provided.

10.3.5 Marine Operative Job Description

REPORTS TO: Duty Harbour Master via their Berthing Master

Purpose of job;

To efficiently and effectively carry out all operational tasks allotted, to include the safe movement and berthing of all vessels within the port, reacting to and directing a prompt response to all marine incidents in accordance with the Port's and industry procedures and the Port Marine Safety Code.

Illustrative dimensions;

Based from and resident in the Lock-side office and accommodation, working within a duty 'watch' system of one week on duty, providing a continuous, 24 hour presence, followed by one week off duty;

- The Department is responsible for the continuous, daily safe movement and berthing of all
 vessels within the port, berth preparation and marine structure maintenance, in accordance
 with the ports advertised policies and procedures required by the Port Marine Safety Code.
- Together with the ports Technical Services, the Department manages the collection, consolidation and recycling of ship and port generated waste products and other port services.

Qualification, knowledge and experience;

Qualified to Able Seaman or Efficient Deck Hand Coc; or MOD (Navy) qualifications and a current ENG 1, or an ML5, MCA medical certificate, with previous experience as;

- Seaman in 'short sea or home trade' or 'deep sea dry cargo' vessels, or port towage.
- Previous relevant MOD (Navy) or equivalent, relevant service.

Key result areas;

- To effectively use own initiative, technical ability and seamanship skills to provide a standard
 of work and productivity consistent with the safe operation of the port and good customer
 service.
- To obtain a thorough working knowledge of the office, plant and equipment to effectively carry out all operational duties.
- To alert the *Duty Officers* of any situation that may affect the safe and efficient movement and mooring of all ships in all operational areas of the Port.
- To meet and secure all vessels through the lock and onto the allocated berths as directed, liaising with ships officers and crew.
- The respond as directed to all other marine operations which may impact on the safe operation of the port and to ensure that the Ports Oil and Chemical response, fire on board vessels, surge tide incidents and diving operations are undertaken in accordance with the Ports procedures, modified if required as an incident develops.
- With the *Duty Harbour Master and Berthing Master*, to maintain detailed 'logs' of all shipping movements.
- To undertake regular, daily patrols both afloat and ashore, checking berths prior to arrival and reacting appropriately, or reporting any situation that could impact upon safe shipping movements.
- To ensure that any defects to lock or marine infrastructure, marine craft or vehicles are reported to the appropriate *Marine Officer or Technical Services* and to ensure that there is minimal detraction to the marine service provided by the department.
- Together with the *Technical Services*, the Department manages the collection, consolidation and recycling of ship and port generated waste products and other port services.

Major tasks and problems;

- Working on own initiative, to carry out unsupervised basic lock operations and ancillary work such as berthing of smaller vessels (tugs & barges), dock patrols and bunker check lists.
- To summon and co-ordinate emergency services through POTLL Police in the event of any incident which might affect the operation of the port, until relieved by senior marine or POTLL management.

Supporting tasks;

• To ensure that operations are carried out in such a manner as to minimise damage to Company property, but where such damage does occur, to assess this and liaise with the appropriate Technical Services, in order to recover finances.

Decision making;

- Call out and liaison with the Emergency Services through POTLL Police and H&S Officers.
- The continual monitoring of health and safety and the promotion of safety awareness of self and others.

Additional information;

The position is a 'hands-on' position requiring the post holder to be capable of multi-tasking and to become involved in all aspects of the departments routines and responsibilities.

A seven day 'watch', to include statutory rest and meal breaks, acknowledging the requirements of the Working Time Regulations 1998 but accepting the 'Exceptions' outlined in Part 2 of the regulations;

- 18.(a)(i) Excluded sectors.
- 21.(c)(ii) Other special cases.

A requirement to wear the Company's uniform which, together with PPE and other protective clothing, will be provided.

10.4 Duty Harbour Master's Responsibilities

The Duty Harbour Master is responsible for all marine operations and the safety off all marine facilities owned or operated by the POTLL, together with the marine operation and safety of all shipping and other floating craft using the facilities. The DHM has deputised powers of the Harbour Master.

Routines will include the following:-

Daily routines, procedures and 'good' practice;

I have often indicated that I believe a more effective routine could be managed and as discussed, this memo is a clarification of those duties, individual responsibilities and a list of the jobs to be undertaken by Nu-wave staff during each 24 hours. I am confident that most of the jobs, dock patrols, berth and Dock Pilot checks can be undertaken between ship/lock transits within the agreed ten hours, plus house-keeping daily.

It is appreciated that all ports are different and there may be some items or procedures that could attract professional comment, 'teaching Grandma' etc. I am attempting to set out what I consider, as the HM, to be best practice and in the best interests of this port, not those of the individual.

Safe Lock Operations: This is the basic task of the Marine Department, using sufficient and appropriate staff to assist the Master/Pilot, to supervise and safely moor any vessel of any size in the lock as set out in the various procedures.

<u>For inbound vessels</u>; contact will be established as the Pilot or PEC reports the vessel passing the Landing Stage and communications, approach, side too and mooring lines to be passed and any further information required agreed before the vessel turns into the 'bell mouth'.

A member of the duty watch, equipped with radio and if required the 'laser range finder', should be posted on the appropriate outer arm before the vessel turns in, to pass information, distances or warnings as required and as a competent observer in case of an incident. Unless I am informed otherwise, I consider all the crew to be competent and therefore this individual could be any one of the duty watch.

Dependent upon weather conditions, a vessel will normally, but not always, moor on the lock side the Master/Pilot has pre-positioned, avoiding the requirement to change control stations during the manoeuvre. In each case it is the Master's decision and 'side too' should not be imposed.

I consider any of the 'crew' should be capable of preparing the lock or transiting tugs and barges without further supervision but keeping either the DHM or DAHM advised of gate and sluice operations or on leaving lock side.

<u>For Outbound Vessels</u>; contact will be established before the Master/Dock Pilot is given permission to slip and a member of the duty watch posted at the inner end as the vessel transits the dock and before the vessel approaches the lock.

Lock Scheduling; is the responsibility of both the DHM and the on duty DAHM working as a team but with mobile phones available, telephone and voice recorders, there is no specific requirement for one or both officers to be in the office continuously, but one should be on site, within the lock area. The office will normally be staffed during the working day by a member of the POTLL staff, available if required to assist or deputise and allowing Nu-wave staff to go about their duties.

The DHM and DAHM should regularly brief the watch of any changes and again brief the POTLL HM before leaving the office.

To emphasise; I would encourage the duty staff to get out and about the port, equipped with radio and MOB. I will arrange to amend the 'answer machine' to include an agreed 'duty mob number'.

Training: With a view to both promotion and efficiency, every opportunity should be taken by Nuwave management, the DHM's, to train both DAHM's and AB's to be able to assist or deputise to achieve the following;

Dock Patrols, by water & vehicle: As discussed, equipped with radio and MOB, daily when possible either in pairs or the Duty Officer in the vehicle or 'work boat' to ensure that;

- > Berth preparation, check fenders, crane positions, safety ladders etc.
- ➤ Ships laid-by; check manning, moorings, safe access, waste collection/disposal.

I would also encourage the night watch to undertake patrols, by vehicle, in pairs leaving an AB to monitor the telephones and radio.

Water clearance of detritus by grab or hand net (Daily should minimise effort).

Mooring supervision; when possible! To regularly supervise/observe non POTLL mooring operations and audit POTLL mooring operations and advise HM of any non-conformance. <u>Out of hours may be restricted</u>, but the duty officer should feel free to leave lock side to undertake this observation, leaving a suitably trained AB to monitor radios etc; my comments above refer.

Dock Pilotage and Bridge team audits: To regularly observe these 'teams' in action and report any non-conformance having first briefed those concerned;

Every effort should be made to release the Berthing Masters, to train and familiarise them with Bridge operations and the ports requirements for Dock Pilots and Masters, the DHM deputising and supervising any lock transits during these times.

Mooring Operations: In addition to the daily P&O ferry into 34 berth, any other mooring operations as agreed by POTLL HM in discussion with the DHM and subject to staff availability. i.e. Out of hours at 43 berth or Enterprise; a charge will be made.

Work Boat and vehicles; should be checked and run up daily, cleaned and basic maintenance undertaken weekly or as scheduled and faults reported promptly.

ALL Incidents both marine or H&S; <u>should be reacted to IMMEDIATELY</u>, the DHM summoned, <u>POTLL HM's informed</u>, an investigation initiated and evidence seized, if required, with the assistance of POTLL Police Officers and correlated in the 'Perspective' system.

Lock Gate, routine maintenance: Probably to coincide with extended lock operations. Weekly/monthly routine maintenance schedules and checks as agreed with Central Engineering. Any fault or query to be referred to engineering immediately.

Management, training, housekeeping and drills: Like a ships Master, the DHM is the manager of each watch and the Nu-wave representative on site, answerable to the POTLL HM's. Each should manage their watches to achieve the most effective use of their 'crew' for the benefit of the port, encourage the training of all grades and nationalities, with a view to internal promotions and, in addition to the other maintenance duties described, to ensure that;

Accommodation, kitchen, bath room and communal office areas are clean, gardens and the lock environs tended regularly.

➤ Organise and manage regular, weekly 'man overboard'/in dock in lock drills, fire exercises and increase of security status drills, locking access gates etc.

Rest Periods: As a reminder, the law requires us to give a minimum uninterrupted rest period of six hours (In my mind, this is pure rest and excludes showering/dressing etc) plus other rest periods and meal breaks.

Duty Hours: The Duty HM (DHM), principally based around normal office hours, but should be available and on call 24 hours to enable them to support the duty watch for large or unknown vessels, vessel transits in inclement weather and in emergency or following a lock or dock incident. The DHM should subsequently arrange their own 'rest' periods in discussion with POTLL HM's.

For the duty watch, a self-imposed practice for the 'crew' to work in two 12 hour watches per day, one Duty Assistant HM (DAHM) and two Able Seamen (AB). You are reminded that at some times, when more AB's may be required to safely handle mooring lines for larger or unknown vessels, where possible, those AB's should be allowed additional rest periods either before or after the vessel transit as compensation.

Especially at night, if scheduling permits and with an acknowledgement to 'lone person working' and the requirement to monitor telephones and the VHF, if one AB can be better deployed to 'day-work', that individual could be stood down to rest.

Meal breaks: To be taken or when possible scheduled every six hours with an interim 'smoko' (20 minutes) allowed within the six hour period i.e. three hours after meal <u>and not between every ship</u> movement.

Where lock scheduling permits, the DHM should ensure that the Berthing Master is relieved during the day for an hour for a meal break and allowed off site if required, similarly, the AB's. Overnight, the duty watch should self-relieve, tending the VHF and telephones to ensure that colleagues achieve a significant break to cook and eat a meal.

This list is for guidance only and is not exclusive or exhaustive. I would guess sufficient to keep all occupied for up to twelve hours daily and encourage sufficient staff to be available to allow every marine operation to be undertaken safely and in a professional and seamanlike manner. A lot will depend upon the leadership and management of the DHM's. Copies of the respective job descriptions are available, detailing respective and collective responsibilities.

10.5 Movements

The DHM should be aware of what is taking place, or is planned to take place at POTLL berths and shall take such action as will best expedite operation and use of the facilities.

10.6 Help and Assistance

The DHM may, at any time, call the Harbour Master or in his absence the Deputy Harbour Master, for advice or assistance in carrying out his duties and shall advise him of all marine emergencies or other unexpected situations which may require the on site supervision of the HM.

10.7 Deputise

In the event that the Harbour Master is not available, the DHM will take whatever action he considers necessary and shall keep all concerned informed accordingly. Emergency procedures set out in Section 12 must be complied with so far as is possible and practical.

10.8 PLA Liaison

The DHM is required to work in close liaison with the PLA Duty Controller, in such a manner, so that it may best serve the interests of Port of Tilbury London Limited, the Port of London Authority and all vessels in the area.

The PLA Duty Port Controller can be contacted on **01474 562215** (dpc@pla.co.uk) The PLA Duty Pilot Co-Ordinator can be contacted on **01474 562342** (CoOrd@pla.co.uk)

10.9 Policies and Acts

DHM's are to be fully conversant with the Dock Byelaws applicable to POTLL and also the content of the most recent edition of the following: -

- PLA Pilotage Charges
- Port of London River Byelaws
- PLA Permanent Notices to Mariners
- PLA Pilotage Directions

10.10 Communications

The DHM will ensure that any changes to scheduled shipping movements are advised to the relevant parties concerned (e.g. Berthing advisors). Whenever it becomes necessary to change the shipping programme according to circumstances, the DMO may initiate such changes but only after discussion with the Agent/Berth Manager concerned.

10.11 PPE

Personal protective equipment is provided by the Port for all staff to wear. It is the responsibility of the staff to keep this PPE in good order and report and damage or defects immediately.

Inflatable jackets are required when working within 3m of the water's edge both at the lock and anywhere around the port.

Third parties, when visiting the lock area, should report to the Duty Harbour Master who should ensure they have the appropriate PPE for the area they are working and are advised of any dangers or shipping movements to be aware off.

A supply of hard hats are available in cabinets around the lock and are there for the use of PLA pilots boarding and disembarking vessels.

10.12 Lock Procedures Compliance

The Duty Harbour Master shall ensure that the locks are operated in accordance with the procedure set out section 8 of this manual.

10.13 Handover

On completion of his duty period the DHM will provide his relief with a comprehensive handover, a copy to be kept on M drive.

Berthing masters and Operatives will also fully inform their reliefs of any operational issues.

10.14 Equipment and Maintenance

The DHM shall ensure that all areas and equipment operated or controlled by the Marine Department are kept clean and in a good state of repair. Any deficiencies should be reported to Technical Services using the maintenance request system. The H/M should be kept advised of actions taken.

10.15 Reporting of Damages

The DHM must formally report damages caused when vessels are entering/leaving the lock. He shall also attend and report on damage at other areas in the dock when a vessel has caused such damage.

10.16 Movements

All vessel movements to or from berths in the Port must be entered into the Duty Harbour Masters Daily Situation Report. Any circumstances that may be later relevant to the Accounts Department in respect of dock charges should be notated. (E.g. cancelled tows, late orders detentions etc.).

10.17 Memorandums

New Memorandums or other instructions from the Harbour Master must be viewed and signed by each watch.

10.18 Technical Problems

When there is a technical problem beyond the ability of the shift personnel on watch to deal with, for example an impounding pump alarm, Technical Services must be contacted using the OOH contact details if necessary.

10.19 Training

Any necessary training requirements for the Marine department are normally determined at appraisals and POTLL Training Department advised. The Training Department maintain a training plan to ensure that re-qualification in operating plant equipment, as may be necessary, is maintained valid. "Bachmann Port Services" training however is their responsibility to provide suitable qualified personnel.

The Harbour Master and his Deputy will attend any training required, when operations allow.

11 RECREATIONAL NAVIGATION

11.1 Recreational Port Users

Normally the Port offers no facilities to recreational craft.

However, long-standing "leisure users" are currently active in the Port.

i. Thurrock Sea Cadets, based at 35 berth. However, their activities only comprise the use of sailing dinghies in the enclosed dock. Prior to this happening, the Commanding Officer or a person appointed by him, liaises direct with the DMO at the Lock-side with regards to movements for the period of attendance.

11.2 Interface With Commercial

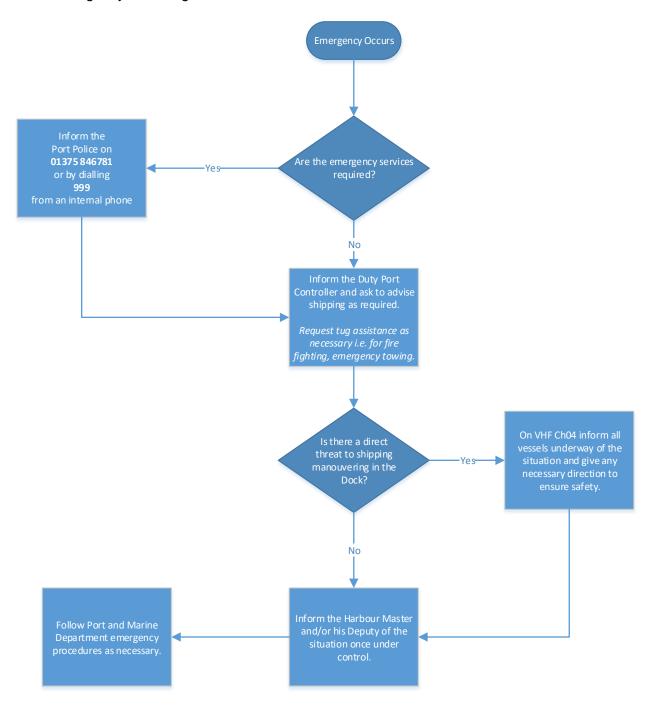
No direct interface between the above recreational users and commercial traffic occurs as the nature of their operations would not normally impact upon shipping movements.

12 EMERGENCY RESPONSES

12.1 General

In an emergency it is important to take prompt action to reduce any impact on the shipping schedule and the business as a hole.

The following flowchart illustrates the initial steps required by the duty officer on becoming aware of the emergency occurring.



12.2 Liaison To PLA

During any emergency, close liaison between DO and the PLA Duty Port Controller is to be achieved at all times. Depending on the nature of an incident the full emergency procedures of the Port of London Authority are available and such assistance may be requested according to circumstances.

12.3 Informing the Harbour Master

The POTLL Harbour Master is to be informed as soon as possible following any incident where emergency action is considered necessary and thereafter he will initiate any follow-up activity.

12.4 Advising the Site & Asset Director

At the direction of the Harbour Master the Site & Asset Director should be advised of any emergency situation within the Port. They will be able to approve any emergency expenditure required and source additional resources to assist the Marine Department.

12.5 Information for Port Police

Initial advice to the Port Police should include brief details of an incident, the location, type of assistance requires and, if appropriate, help being sought through the PLA emergency procedures. Further information should then be given to the Police as a situation develops.

12.6 Fire Fighting Assistance

Incident such that tug assistance may become necessary should be advised direct to the DPC at the PLA so that assistance can be sought.

12.7 Chemical Incidents

Incidents involving chemical / toxic substances should be reported to the Port Police, Technical Services, The Marine Department and, if involving Riverside berths, to the PLA.

Chemical spills in the water will have to be managed by the MMO / MCA.

12.8 Bomb Alerts

Bomb alerts must be reported to the Port Police immediately. In the meantime whilst awaiting their attendance, the affected area should be cleared of all personnel.

VHF Radios should not be used in the immediate vicinity of the suspected device.

12.9 Outside Assistance

Should any vessel or other floating craft sink or be in danger of sinking within the Port of Tilbury or in its approaches in such a position as to impede safe navigation all shipping, affected shipping is to be informed and the location marked as soon as possible by any appropriate means. Where the situation suggests that assistance may be required beyond the resources of POTLL outside assistance should be requested as soon as possible.

12.10 Oil Pollution

Any reported oil pollution within the port area is to be investigated immediately, and the requirements of the POTLL Oil Spill Contingency Plan complied with. Samples of oil should be taken for comparative analysis, as well as statements and photos. Check sheets are found in the Lockside work instructions attached to the annex.

The Duty Harbour Master has the authority to call in the Port's Tier 2 Responder, Adler and Alan.

12.11 Vessel Break Down in The Lock

If there is any threat of interruption to the shipping programme through the lock, the Duty Harbour Master has the authority to order in a suitable towage tug(s) to remove the vessel form the lock.

12.12 Incidents Whilst Berthed with HZ Cargo

It is a requirement of the Dangerous Goods in Harbour Areas Regulations 2016, that an untoward incident involving a hazardous substance is reported to Harbour Master. Where such an incident

has occurred, the berth operator may need to arrange for the attendance of specialists and/or the emergency services to contain the effects of such an incident. As such, the responsibility, for control of the incident will be the Berth Operator in association with POT Police if the emergency services are called.

Generally in response to a hazardous cargo incident, the following should be informed:

- · POT Police,
- · Asset Manager of area concerned,
- · Health & Safety Officer
- Marine Department.

The berth should immediately check the IMDG Code to ascertain properties and risk associated with the cargo. The information learnt from this may require immediate actions prior to the arrival of the emergency services e.g. evacuation. Both the POT Police and the Marine Department have a detailed electronic information system (CHEMDSATA), which can assist in determining the hazards associated with a particular commodity.

12.13 Emergency call out Procedures

12.13.1 Marine Department

The Harbour Master should be called as soon as practicably possible after any incident or emergency has occurred.

If there is any doubt over a situation the Harbour Master or his Deputy should be called.

If the Harbour Master cannot be reached then his Deputy should be called.

If there is a technical failure of the lock machinery which cannot be quickly rectified by engineering and is likely to cause disruption to the shipping schedule the Harbour Master should be immediately informed in order that the Port's Senior Management can be informed.

12.13.2 Technical Services and Central Engineering

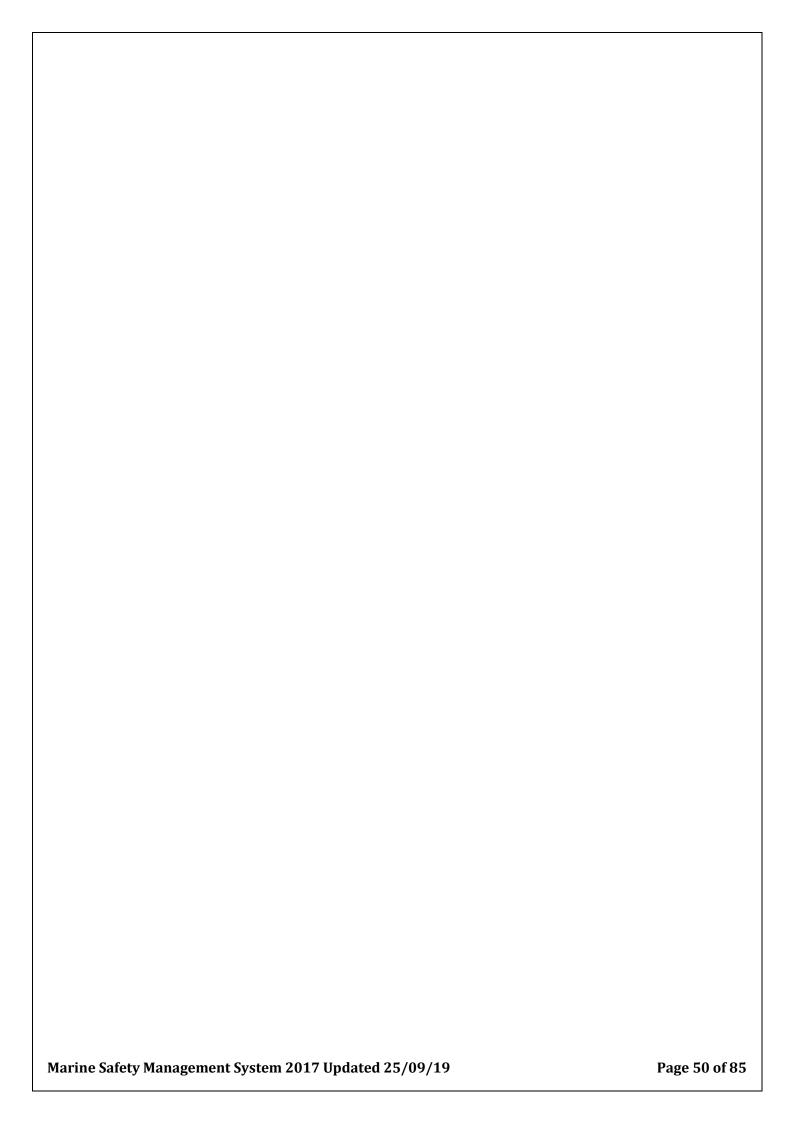
The duty superintendent from the engineering department will email the Marine Department every Friday with the weekend call list and telephone numbers.

Any issues with the locks not operating correctly should immediately inform the duty engineer as soon as possible so the issue can be rectified and cause minimal disruption to shipping schedule through the lock.

12.14 Emergency Exercises

Throughout the year the Harbour Master or his deputy will organise the following exercises:-

- 1 Oil Pollution Communication exercise x 2
- 2 Oil Pollution Practical exercise x 2
- 3 Oil Spill table top exercise x 1
- 4 Oil Spill Management exercise (every 3 years)
- 5 Man in the water exercise x 2
- 6 Fire Evacuation x 2
- 7 Fire alarm test weekly



13 REPORTING PROCEDURES

13.1 Damage Reporting

Any damage to the port's property and/or vessels operating within the Port's footprint should be immediately reported to the Marine Department using the *Marine Incident Report Form* available to download from the Marine Department website https://www.forthports.co.uk/marine/tilbury-port-authority/. This will be followed up by a further investigation by the Harbour Master with appropriate action taken and damage claims filed.

Preserving evidence is vital for an effective investigation to be carried out and it is important the incidents are reported as soon as possible to the duty marine officer either by telephone or on VHF Ch 04.

13.2 Notification of Damage

Agents and operators will be notified by email with a Casualty Advice giving them details of the incident involving their vessel(s). They will then need to lease with the Harbour Master in terms of settling any claims and having the damage repaired as soon as possible.

13.3 Marine Incident Report

The Marine Incident Report, which is available to download from the Marine Department website https://www.forthports.co.uk/marine/tilbury-port-authority/ should be completed after every incident by those involved and include witness statements from those who saw what happened. Once completed the incident report will become a confidential document and will not be distributed to any third parties.

13.4 Responsibilities to report damage

The DHM should ensure that all marine personnel are aware that it is their duty to report all damage or any unusual event to the DMO for investigation and follow-up.

13.5 Delayed Movements Due To Damage

Any incident that may result in delay to shipping should be notified to the PLA Duty Port Controller, the agents and this fact recorded in the Daily Situation Report. Where such incidents are of a serious nature involving long delays (greater than 1 hour) or involve more than one vessel, the Harbour Master should also be informed.

14 MARINE OPERATIONAL PROCEDURES (MOP)

MOP No. 1 - Surge Tides

MOP No. 2 - Run In

MOP No. 3 - Blackout

MOP No. 4 – Arrested / Detention of Vessels

MOP No. 5 – Shallow Berth Requests

MOP No. 6 – Bomb Threat

MOP No. 7 – Major Incident

MOP No. 8 - Warning Calls to Assets

MOP No. 9 - Collision in the enclosed dock

MOP No. 10 - Grounding

MOP No. 11 - Oil Spill

MOP No. 12 - Dangerous or disabled or damaged vessels

MOP No. 13 - Fire / explosion on board ships

MOP No. 14 - Evacuation of lockside

MOP No. 15 – Protests and demonstrations from vessels

MOP No. 16 - Incidents

MOP No. 17 - Person in the dock

MOP No. 18 – Person in the lock

MOP No. 19 – Person in the river

MOP No. 20 - Swarms of bees

MOP No. 21 – Diving Operations

MOP No. 22 - Ship visits

MOP No. 23 - ISPS

MOP No. 24 - Bunkering

MOP No. 25 – FLOOD PLAN (Marine Department)

MOP No. 26 - Defective Navigation Lights

MOP No. 27 – Manoeuvring vessels in restricted visibility



MOP No. 1 - Surge Tides

Any predicted tide exceeding @ 6.7m at the Tilbury bell-mouth may result in water overflowing the top of the lock gates, creating a "run-in". During such periods, precautions must be taken in good time to protect Lock-side machinery and to arrange shipping movements accordingly.

When flood alerts issued by the Environmental Agency are received, the requirements set out in the POTLL Surge Tide Procedures are to be complied with. Where such alerts may result in the Tilbury Flood Barrier being closed, berth operation managers and agents of shipping that may be affected should be advised.

Normal precautions against the effect of run-ins must be taken even though the Environmental Agency has given notification of intent to close the Tilbury Flood barrier.



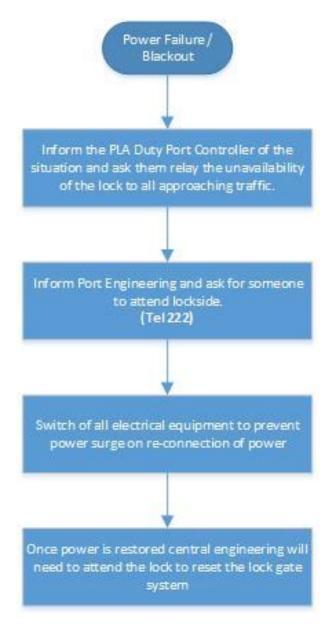
MOP No. 2 - Run In

- a) Unlock all upper machinery house doors and remove padlocks from manual leaver controls. Post a Dock Operative at each position.
- b) Open inner and middle gates.
- c) As the level; reaches the top of the outer gates raise the outer sluices and crack open the gates using the manual levers to allow the water to flood in making sure that the motors are stopped at all positions.
- d) When the run-in ceases close the outer gates and sluices. As the river level falls the excess in the dock will flood back over the gates. When the outflow stops close all gates, lock all machinery houses and replace all padlocks on levers.
- e) Open and close all pairs of gates and sluices to check for correct working.



MOP No. 3 - Blackout

- 1. During a power cut or blackout at lockside all lock machinery will stop working
- 2. With the exception of an emergency handheld radio (kept in the Deputy Harbour Master's office) all VHF radios will stop working.
- 3. Telephone will remain operational.
- 4. The procedure to follow is:





MOP No. 4 – Arrested / Detention of Vessels

- > On hearing any rumours of fact that a vessel may be arrested prior to that vessel berthing, the Duty Harbour Master should confirm / notify:-
 - Harbour Master
 - Deputy Harbour Master
 - Asset Manager
 - o PLA
 - o MCA
- As a result of a vessel being arrested, all expenses are for the Owner's account, therefore accurate records should be kept of all the costs involved e.g. Mooring Party, tugs, etc.
- All expenses should be sent initially to the Admiralty Marshal.
- ➤ Lockside should ascertain to which (if any) of the other berths it would be practical to shift the vessel, which may cause less inconvenience to the Port.
- Permission to sail or shift a vessel that has been arrested can only be given with the full written consent of the Admiralty Marshall, (sometimes represented by H.M. Customs)
- Admiralty Marshall Office Hours Telephone Numbers:-

Admiralty Marshall
 Deputy Admiralty Marshall
 General Office
 0207 936 6111
 0207 936 6323
 0207 936 6112

ARREST / DETENTION INFORMATION

	DETAIL	S			A	GE	NT'S I	DETAI	LS	
Vessel's Naı				Ag	ency's Nam	е				
IMO Numbe				Po	int of Contac	ct				
Date of Arre				Ad	dress					
VCN:										
LOA:										
Draft:										
ETA Tilbury:					Pos	stcode				
ETD Tilbury:						ice Telepho	ne l	No.		
Berth / Term						ice Fax No.				
Bow Position						bile No.				
Stern Position	n:				Em	ail Address				
Cargo to be loaded/off-loaded/off										
	0.00									
Admiralty	Office p		0207 936611			Deputy		fice ph		0207 9366323
Marshall	Office		0207 9366245			Marchall		Office 1		0207 9366245
LUCD L	Out of hours 0207 9366000		U	Out of hours 0207 9366 0771 3324824 (24 hours)				0207 9366000		
UK Border F	orce (Det	ection)				0771 33248	324	(24 no	urs)	
	SHIP'S S	OLICITO	R			OP	POS	SING	SOLIC	ITOR
Company Na	ame				С	ompany Nar	me			
Point of Con	tact				Point of Contact					
Phone					Phone					
Fax No.					Fa	ax No.				
Email Address					Eı	mail Addres	S			
Alternative	harths	LOA		Time			1	Other	(Plaas	ca stata)
rejected bed		Draft	/				se state)			
(Please tick)		Ramp	<u> </u>							
(1 loade tick)	Тапр	<u> </u>	I i apeiwo	/1 IX						
OPTION CONS	SIDERED W	HEN REQ	UESTI	ING AN INT	ERV	ENTION ORE	DER			
Option 1						Berth next re		ed for		
Remain on current berth		th				(insert date and time)				
Option 2					Berth next required for					
Move to alte	th				(insert date a					

INTERVENTION DATA INFORMATION

Vessel name			LOA					
Last Port			Next Port					
Arrival Draft			Estimated depart	Estimated departure draft				
Berthed at			Cargo					
			Estimated time of completion	f				
Agent			External phone					
Internal phone			Out of Hours	Out of Hours				
Fax								
Contact name			Phone					
Date of arrest			Reason for arrest	t				
Sum involved			Number of parties	s involved				
Tilbury Port condition	on (date)			At (time)				
Number of vessels at	anchor							
Number o	f vessels n	ow in port	by berth & restricting	g ETD + Co	mment			
Berth								
Number of	vessels exc	ected by be	erth & restricting ETA -	+ Comment				
Berth	Ī							
0 11 11								
Suitable be	erths now av	/ailable by b	perth & duration of ava	ilability + Cor	nment			
Dertii								
Any other information	available ((e.g. has o	ther vessel of same	line been a	rrested? Where? When?)			



MOP No. 5 - Shallow Berth Requests

- If information has been received by Duty Harbour Master, that whilst berthed alongside in POTLL due to:
 - Port of refuge request
 - Vessel breakdown
 - Agents request, or
 - Planned berth for cargo operations,

a vessel will have insufficient water, the Harbour Master should be informed.

- Advise the asset department to investigate available alternative berths.
- ➤ If shallow berthing approved by the Harbour Master, 'Request for Shallow Berth & Indemnity' letter from the owner/agent/master.
- > PLA to be advised on river berths.
- Copies of completed Indemnity to be forwarded to vessel & agent, original to the Harbour Master.
- ➤ If request declined, advise agent/owner/master.



MOP No. 6 - Bomb Threat at LOCKSIDE

- ➤ If you receive a Bomb Threat by telephone, to ensure all relevant information is obtained using the Bomb Threat Checklist.
- ➤ If the threat advice did not originate from the Port Police- advise the Port Police.
- > Inform:
- Marine Division Management
- PLA
- Svitzer
- Asset Mangers
- Warn ship moorers not to proceed into the danger zone.

Note: If the threat indicates a device at the Lockside.

- > Evacuation of the Lockside must be commenced immediately.
- > DO NOT activate the Fire alarm system, (the alert must be passed verbally when clear of the Lockside).
- > DO NOT switch ON or OFF any electrical apparatus (including battery operated devices).
- > DO NOT use any telephone or radios in or around the vicinity of the building.
- > Ensure that all personnel that are off watch are informed and evacuated.
- When at least 200 metres from the Lockside offices, alert the Police.



ANNEX C: BOMB THREAT CHECKLIST

OBTAIN AS MANY FACTS AS POSSIBLE SWITCH ON RECORDING SYSTEM IF AVAILABLE

Questions to Ask When is the bomb going to explode? Where is it now? What does it look like? What kind of bomb is it? What kind of bomb is it? What kind cause it to explode? Did you place the bomb? Why? What is you raddress? What is your address? What is your telephone number? Sex of caller: Male Fermale: Estimated: Age Nationality Threat Language Well Spoken Irrational Foul Incoherent Taped Message Message read by threat maker Caller's Voice Background Sounds Calm Nasal Stret Noises Animal Noises Angry Stutter Crockery Clear Excited Lisp Static Voices Slow Raspy PA System Local Rapid Deep Music Booth Soft Gagged House Noises Motor Loud Clearing Throat Office Machinery Factory Machinery Laughter Deep Breathing Ot Crying Cracking Voice Ot Normal Disguised Ot Distinct Accent Disguised Ot Distinct Accent Disguised Ot Distinct Accent Disguised Ot Distinct Accent Disguised Ot Name of person receiving the bomb threat call. Dated: Signed:	Wording of Threat						
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Sex of caller:							
Irrational Foul Incoherent Incoheren							
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Name of person receiving the bomb threat call. Dated:	Name of person to w	hom the call was reported.					
Dated:							
	-						



MOP No. 7 - Major Incident

A MAJOR INCIDENT WITHIN HARBOUR LIMITS CAN BE DESCRIBED AS MEETING ONE OR MORE OF THE FOLLOWING CRITERIA:

Any emergency which causes or threatens one or more of the following:

Death or serious injury to numbers of people.

Extensive damage or contamination to the environment.

Extensive damage to vessels, installations, berth facilities, river structures, plant or equipment.

Serious disruption to the operation of the port.

This would be on a scale beyond the normal day to day capacity of the port emergency services, and requiring the special and extensive mobilisation of those resources.

The definition of a serious incident cannot be precise and must be at the discretion of the Duty Harbour Master. As a guide but by no means as a rule, a serious incident may be described as one of such a scale as cannot be resolved immediately by the intervention of the port's own resources or those of PLA.

In any serious incident the Duty Harbour Master will:-

- Advise the Harbour Master
- Advice the Deputy Harbour Master
- Advise PLA (Duty Port Controller 01474 562215)
- Advise the Port Police (01375 846781 or 999 from any internal phone)
- > Advise Svitzer Towage as required.
- > Render any immediate instructions, assistance and advice the master of any vessel concerned may require.
- > Instruct other ships which could become involved, in good time, to prepare to move if and when it appears prudent to do so.
- > Initiate response by the emergency services and PLA if appropriate.
- Maintain an accurate log of times and details of the incident.
- Call in extra staff to the Lockside to cover his attendance on situation and to handle any extra workload.
- > Call in additional shipmoorers if their presence will expedite movements of ships or if they can assist in marshalling or transporting survivors, visitors, etc
- Restrict access to the Lockside to essential personnel only

In all incidents the Duty Harbour Master will assume control of the incident until such time as the Harbour Master or his deputy relieves them and will initiate action as for all serious incidents. From this time the Harbour Master or his deputy will assume control of the Marine department's responsibilities and allocate duties



MOP No. 8 - Warning Calls to Assets

Whenever there is an incident where a vessel under way is thought to be in danger of contacting either another ship, under way or alongside, or a crane, then the Duty Harbour Master must, as soon as possible, telephone the following, to give warning to that assest.

LCT

> 01375 363100

Grain

01375 852313
07887 566 425

Cruise

01375 852369
07979 594474

Conventional

01375 852218 07774 239316

Bulk

01375 852313
07887 566 425

Corry's

07764 822679 07887 724568

Cemex

01375 856617 – 843502 07810 813119

<u>Finn</u>

01375 8582312



MOP No. 9 – Collision in the enclosed dock

Whenever a collision between two vessels occurs in the impounded dock whether under way or when either vessel is berthed in the Port then the incident shall be treated as a potentially serious incident until such time as evidence permits a lesser state of alert.

Any collision has the potential to develop into a serious incident, however slight the initial damage may appear to be. Personal injury, ingress of water resulting in sinking or loss of stability, oil pollution, fire and the creation of a hazard to other shipping may all occur.

The Duty Harbour Master will initiate the response when both vessels are under way and will alert the Emergency Services.



MOP No. 10 - Grounding

In the event of grounding:-
The Port will ensure compliance with this plan wherever appropriate and as called upon by PLA.
In addition the Duty Harbour Master will:
Follow the instructions for any incident or serious incident as appropriate and for dangerous and disabled or damaged vessels
Investigate berth availability in case the stranded vessel has to berth or re-berth in the port and advise asset management accordingly
Advise asset management of any possible delays to shipping movements

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Marine Safety Management System 2017 Updated 25/09/19



MOP No. 11 – Oil Spill						
See the separate POTLL Oil Contingency Plan for the latest information and checklists that need to be completed.						



MOP No. 12 – Dangerous or disabled or damaged vessels

Section 1 of the Dangerous Vessels Act 1985 enables a Harbour Master to give directions prohibiting the entry into, or requiring the removal from the harbour of any vessel if, in his opinion, the condition of that vessel, or the nature or condition of anything it contains, is such that its presence in the harbour might involve:

Grave and imminent danger to the safety of any person or property

or

> Grave and imminent risk that the vessel may, by sinking or foundering in the harbour, prevent or seriously prejudice the use of the harbour by other vessels.

The purpose of the Act is to enable the Harbourmaster to take action to avoid a catastrophic accident. It does not give him carte blanche to exclude ships from the harbour. It does not entitle a harbourmaster to exclude a ship simply because, in his view, oil from the ship may pollute the harbour – although if he has reason to believe that a ship which proposes to enter the harbour does not comply with the requirements of the Merchant Shipping (Prevention of oil pollution) Regulations 1983, he may, and indeed must, under Regulation 33 of those Regulations, report the matter to the Secretary of State, who may deny the ship entry to port if he is satisfied that it presents an unreasonable threat of harm to the marine environment.

If such a vessel, or to a lesser degree any damaged or disabled vessel, requires to use the Port, Duty Harbour Master will immediately inform the Harbour Master or deputy and carry out checks as for all serious incidents. The Harbour Master or deputy will in turn alert Site & Asset Director (Port of Tilbury). They will require the, Duty Harbour Master to ascertain all particulars of the construction of the ship and the extent and severity of all damage and injury to personnel. If there appears to be any threat of sinking, stranding, pollution by oil, noxious gases or chemicals, or of fire, he will immediately alert all emergency services and will ascertain what suitable berths are available to receive the casualty.

Each incident being different, the Ports response would vary accordingly. In all cases however, the Port would initially require the initial information to be obtained.

DANGEROUS OR DISABLED AND DAMAGED VESSELS

Appendix 1

1.	Inform:	a)	a) Harbour Master and/or his deputy						
		b)	Police						
		c)	CEO						
2.	Commence Port Emergency procedures.								
3.	Confirm vessel's: -	a)	Length overall						
		b)	Draught						
		c)	Agent						
		d)	Cargo (Whether or not it is	1					
			hazardous or highly flammable						
4.	Establish whether:	a)	There are any casualties						
		b)	There is any leakage from the vessel						
		c)	Any leakage is of oil or hazardous						
			materials						
		d)	, ,						
		e)	e) The vessel has a list						
		f)	The vessel has an exceptional trim						
		g)	The vessel is in a stable condition						
5.	Obtain the latest weather forecast								
6.	Inform management of all assets of possible requirement for lay-by								
	berth								
7.	Request management of all assets to nominate any possible lay-by								
	berths which may become available within a reasonable time span								
8.	Update latest estimated time of departure of all vessels in port								
9.	Check manpower requirements for all possible movement scenarios are available								



MOP No. 13 - Fire / explosion on board ships

1.	Relay alarm to:	i)	Port Police				
		ii)	PLA if applicable				
		iii)	Fire tugs				
		iv)	Assets involved				
		v)	Harbour Master and/or his deputy				
2.	Commence recor	ding of	all relevant data				
3.	Establish whether:	i) There are any casualties					
		ii)	There is any hazardous or inflammable cargo on board				
		iii)	There is leakage from the vessel				
		iv)	Any leakage is of oil or hazardous materials				
		v)	There is any leakage into the vessel				
		vi)	The vessel is developing a list				
		vii)	The vessel is developing an exceptional trim				
		viii)	The vessel is stable				
4.	Check that mooring operatives are available for possible additional work load or watermen are available						
5.	Check adequate Lockside staff ready for possible work load						
6.	Advise Masters of other ships of situation						



MOP No. 14 - Evacuation of lockside

If the reason for evacuating the Lockside is an immediate emergency within the lockside or it's surrounding environment, then immediate evacuation must be carried out. All personnel should be accounted for including the use of the tag system located in the foyer of the accommodation block.

If evacuation is caused by long term power loss or predicted flooding the following checklist should be compiled with.

1.	Advise the PLA Duty Port Controller by telephone or emergency VHF	
2.	Take a photograph of the Control Room port plan off the wall so that it can replicated	
	as necessary elsewhere.	
3.	Turn off all electrical equipment to prevent power surge.	
4.	If flooding is anticipated then ensure all local flood barriers are closed and put in	
	place any measures possible to protect infrastructure at lockside such sand bags and	
	raising items off the floor to minimise water damage.	
5.	Take all relevant keys from the key boxes.	
6.	Take all VHF radios and chargers	
7.	Take torches	
8.	Take keys for Thurrock	
9.	Take any other items that may be required.	
10.	Establish a new control point elsewhere in the port.	



MOP No. 15 – Protests and demonstrations from vessels

In the event of vessels being used to make a demonstration in the Port area, possibly accompanied by inflatable craft and persons in the water, then every care must be taken to not to harm those persons and vessels and to safeguard the navigation of other traffic in the area. This traffic must be given the earliest advice and ongoing state of the situation.

The Port & PLA will communicate with those concerned to reach an agreement minimising the danger and disruption to all involved.

Any such occurrence should immediately be treated as a serious incident and managed accordingly.



MOP No. 16 - Incidents

For the purpose of these instructions, an incident shall be described as:

Any deviation from normal safe operations in the waters surrounding the port, especially within the area of jurisdiction of PLA, which may affect or be affected by the Marine Operations of the port or where the port may be able to render assistance to the lead agency responding to that incident.

Minor incidents are those that can be handled within the everyday resources of the port.

When such incidents are reported to Lockside then the Duty Harbour Master or berthing master will:

- Advise the Harbour Master or his Deputy, whom ever is on duty
- Advise PLA.
- > Advise the port Police.
- Advise Svitzer Towage if appropriate.
- > Attend all guay marine related incidents and report back to the Lockside, all pertinent circumstances.
- Render any immediate assistance and advice to the master of any vessel concerned.
- Initiate the response by the emergency services or PLA if appropriate.
- Maintain an accurate log of times and details of the incident in the log book.
- Submit all relevant reports pertaining to the marine incident as required:
 - Marine incident for all marine incidents
 - Non conformance where procedures have not been followed
 - Damage- where damage occurs to POTLL
 - Vessel responsibility where vessel is deemed responsible for incident and damage caused.

In all incidents, the Duty Harbour Master will assume control of the incident until such time as the Harbour Master or his Deputy relieves him. From this time the Harbour Master or his Deputy will assume control of the marine division responsibilities and allocate duties.



MOP No. 17 – Person in the dock

Whenever a person is observed to fall into the water anywhere on the dock estate, then with all possible haste, witnesses should:

- > Throw the victim a lifebelt. These are found at the strategic points around the port.
- > Alert the Emergency Services or Port Police or Lockside on VHF Channel 4.
- Alert the Lockside, who in turn will alert PLA if appropriate.
- > Keep a close watch on victim, enrolling others to do the same.
- It is imperative, if at all possible, not to lose sight of the victim.
- > DO NOT enter the water to effect a rescue.



The Duty Harbour Master can use his discretion on whether to call in additional support from ourside such as the RNLI Lifeboat or the PLA. The port's workboat THURROCK has limited rescue facilities and can be used if sufficiently manned.

RescueReach poles are available at lockside if need to pull people into ward the dock edge. They are not suitable for lifting people but can be used to keep hold of unconscious people in the water.

Escape ladders are located along all berths and jetties with life rings available as well.



MOP No. 18 – Person in the lock

Whenever a person is observed to fall into the water anywhere on the dock estate, then with all possible haste, witnesses should:

- > Throw the victim a lifebelt. These are found at the strategic points around the port.
- > Alert the Emergency Services or Port Police or Lockside on VHF Channel 4.
- Alert the Lockside, who in turn will alert PLA if appropriate.
- Keep a close watch on victim, enrolling others to do the same.
- It is imperative, if at all possible, not to lose sight of the victim.
- > DO NOT enter the water to effect a rescue.



The Duty Harbour Master can use his discretion on whether to call in additional support from ourside such as the RNLI Lifeboat or the PLA. The port's workboat THURROCK has limited rescue facilities and can be used if sufficiently manned.

RescueReach poles are available at lockside if need to pull people into ward the dock edge. They are not suitable for lifting people but can be used to keep hold of unconscious people in the water.

Escape ladders are located along all berths and jetties with life rings available as well.



MOP No. 19 – Person in the river

Whenever a person is observed to fall into the water anywhere on the dock estate, then with all possible haste, witnesses should:

- > Throw the victim a lifebelt. These are found at the strategic points around the port.
- > Alert the Emergency Services or Port Police or Lockside on VHF Channel 4.
- Alert the Lockside, who in turn will alert PLA if appropriate.
- Keep a close watch on victim, enrolling others to do the same.
- It is imperative, if at all possible, not to lose sight of the victim.
- > DO NOT enter the water to effect a rescue.



The Duty Harbour Master can use his discretion on whether to call in additional support from ourside such as the RNLI Lifeboat or the PLA. The port's workboat THURROCK has limited rescue facilities and can be used if sufficiently manned.

RescueReach poles are available at lockside if need to pull people into ward the dock edge. They are not suitable for lifting people but can be used to keep hold of unconscious people in the water.

Escape ladders are located along all berths and jetties with life rings available as well.



MOP No. 20 - Swarms of bees

On finding a swarm or colony of honeybees on any incoming vessel or freight, the following action will be taken:

Contact the National Bee Unit,

Food & Environment Research Agency, Sand Hutton, York. O14 1LZ. 01904 462510 nbu@fera..gov.uk

Regional Bee Inspector

Keith Morgan Keith.morgan@apha.gsi.gov.uk 01485 520838 07919 004215

- ➢ If possible, a representative from the National Bee Unit will attend to secure a sample of the bees prior to advising the company to carry out the bees' destruction by the Port's nominated pest control contractor.
- ➤ In the event, for whatever reason, that the National Bee Unit are unable to attend, or it is not considered safe or economical the bees will be destroyed by the Port's nominated pest control contractor.
- ➤ If the ship is sailing before the bees can be dealt with, then the Lockside should be informed so that they can advise the next port.



MOP No. 21 – Diving Operations

- > The new Forth Ports Group procedure should be followed for all diving operations within the port.
- > All diving contractors must be approved by the Harbour Master and details provided for filing. This includes qualifications, personnel details, insurance etc.
- > Every time there is a diving operation the contractor must provide a method statement for the intended work.
- > PLA are to be advised if any diving operations are taking place on any of the Port's river berths.
- > The contractor must be informed of all shipping movements and exit the water if any risk is deemed by passing vessels.

NO DIVING OPERATIONS SHOULD TAKE PLACE IN OR AROUND TILBURY PORT WITHOUT THE KNOWLEDGE OF THE DUTY HARBOUR MASTER.



MOP No. 22 - Ship visits

If any members of the Marine Department needs to board a ship they may present themselves in a clean

and tidy manner being professional at all times. No personnel should board a ship alone without notifying the Duty Harbour Master. Proper PPE should be worn including lifejacket and safety hat at all times when boarding and disembarking the vessel.



MOP No. 23 - ISPS

- > The ISPS declaration must be submitted on the standard POTLL ISPS Proforma.
- Port Police to process any ISPS declarations received by Fax or e-mail.
- If the a vessel has not made an ISPS declaration, the details should be obtained by either:
 - Contact Agent for vessel
 - o Contact Port Police to check whether details have been received
 - o Advise HHA to request vessel to submit declaration
- > ISPS Declaration must be made before allowing a vessel to enter harbour.
- ➤ If, in exceptional circumstances (e.g. the vessel's communications are inoperative), the Duty Harbour Master may request that PLA ask the Pilot boarding the vessel to sight and confirm that an ISPS declaration has been completed, and confirm the security level of the vessel before bringing that vessel into Port.



MOP No. 24 - BUNKERING

- If a bunkering request is received from a Master / Agent/Representative, then the Duty Harbour Master should be informed for both within the lock and river berths.
- When a delivery lorry or vessel is due to arrive, Port of Tilbury it should be made clear that no operation can commence before a Port of Tilbury check list has been satisfactorily completed by a member of the marine department.
- On arrival of delivery vessel, the Duty Harbour Master will monitor safe berthing of the vessel.
- > A Marine Department member of staff will board vessel to complete the checklist prior to an operation commencing.
- > A Marine Department member of staff will board / meet receiving vessel / vehicle to complete the checklist prior to an operation commencing.
- Once the paperwork has been completed and the checklist signed, Lockside should be informed.
- A Marine Department member of staff will remain onboard to observe commencement of bunkering operations to ensure everything satisfactory.
- > A Marine Department member of staff will inform Lockside once bunkering commences: Duty Harbour Master to make entry in the Daily Situation Report.
- Duty Harbour Master to monitor weather / traffic movements during bunkering operations.
- > Duty Harbour Master to inform delivery vessel of any adverse changes to weather forecast and make entry in incident log folder.
- When bunkering operations are completed the berth should be checked as soon as possible for any signs of spillage or contamination.
- The completed checklist is to be filed in the Lockside office.

BUNKERING CHECKLIST

Vessel's Name ___/__/___/ Date Berth Number **Bollard Number** (closest bollard to point of bunker connection) **Contractor Company** Vehicle Registration or Vessel's name Estimated start time: Estimated completion time: Type of Hazardous Liquid: Amount tonnes Volume m^3 **SECTION 2 – Pre-Bunkering Inspection** To ONLY be completed by a member of the Marine Department ☐ YES Have you sighted the vessel's checklist? Is code flag 'B' flying and/or a red light displayed? ☐ YES Is a member of the ship's crew attending at point of connection? ☐ YES Barge or Road Tanker? □ Road Tanker □ Barge ☐ YES Have you sighted the contractor's checklist? Is a member of the ship's crew attending at point of connection? ☐ YES Does all the equipment appear to be in good order? ☐ YES Are all relevant scuppers plugged / securely closed at time of inspection? ☐ YES What precautions have been taken by the vessel to contain any spill? ☐ Spill tray □ Absorbents Other (please state) In signing below confirmation is given that all precautions are in place ready for the bunkering operation to I confirm that at the time of inspection all port requirements were met and I am happy for the bunkering operation to commence. commence and that all personnel involved are trained in the use of spill equipment and are aware of the port's procedures for reporting any spills to the Marine Department immediately on VHF Ch 04. Ship's Duty Officer's Name & Contractor Representative's Inspecting marine officer's name & Signature Name & Signature signature

SECTION 1 – Bunkering Details



MOP No. 25 – FLOOD PLAN (Marine Department)

ACTION FOR MARINE OFFICERS

See separate documentation regarding the port's TIDAL SURGE PROCEDURES.

Upon receipt of Barrier Closure Notice or a Flood Watch Warning the Duty Marine Officer will inform the Port of Tilbury Police by email and phone.

All other messages received by the Duty Marine Officer relating to the Notice / Warning are to be passed to the Port of Tilbury Police in the same manner.

Upon receipt of Environment Agency "Barrier Warning" notice the Duty Marine Officer will inform the Environment Agency Anglian Region Duty Officer of the shipping programme.

The Duty Marine Officer will ensure at all times that the Harbour Master is kept informed.

The Harbour Master or Officer delegated by him will maintain close liaison with the Environment Agency Anglian Region Personnel controlling the operation of the flood barriers and is to ensure that Duty PLA Port Control is kept informed of the status of the barrier.

The Harbour Master, his authorised deputy, or Port of Tilbury Police will check if possible, that the flood wall gates at the Port of Tilbury have been closed by the Environment Agency.

Note that these surge tide procedures do not include any instructions regarding RUN-INS when barrier closure procedures have not been implemented. The Harbour Master will be responsible for implementing Local Action Procedures.

INCIDENT LOG

The Duty Marine Officer will maintain an Incident Log showing times and details of every significant event.

The Log will be forwarded to Site & Asset Director for retention and a copy kept by Harbour Master.

On receipt of a Barrier Closure Notice / Flood Warning, the Duty Marine Officer should consider the following points

Receive message from Environment Agency

- Inform Duty Harbour Master
- Inform Port of Tilbury Police via Fax.
- Check shipping programme for period up to next High Water
- Note Environment Agency Anglian may wish to close Tilbury Lock Flood Gate
- > Inform Environment Agency Catchment Duty Officer of shipping programme
- Commence Incident Log.
- Re-check shipping programme
- Prepare for possible closure of Tilbury Docks Flood Barrier
- Discuss shipping programme with Harbour Master and agree vessel and craft movement times.
- > Personnel to standby:
 - Marine Officer at Lockside
 - Dock Operatives as directed
- > Establish liaison with Environment Agency personnel on their arrival and test communications
- Maintain close liaison with Duty PLA Port Controller
- Liaise with PLA Port Control for shipping programme on re-opening
- Continue to liaise with Environment Agency personnel during gate opening and keep Duty PLA Port Controller and Port of Tilbury Police informed of progress.
- > Confirm to Duty PLA Port Controller when gate is open
- Resume normal operations.



MOP No. 26 – DEFECTIVE NAVIGATION LIGHTS

If a report is received from PLA or any other source regarding a fault with above, following people should be iniformed to carry out the necessary repair:

Port Engineering (Dial 390 or via Wayne Davies on 303)

- > Tilbury Landing Stage
- > Tilbury RoRo Berth
- Tilbury Repair Jetty**
- Tilbury Cargo Jetty**
- Lower Lead in Jetty
- Upper Lead in Jetty
 - ** these lights are solar powered and are self-contained units with an expected service life of 5 years. They are **Carmanah M601: 2NM Marine Lanterns.**

LCT Control (Dial 01375 363700)

Northfleet Hope Container Terminal

Andy Lamb (Monday to Fridays) on 07798 675972

> Tilbury Grain Terminal



MOP No. 27 – MANOEUVRING VESSELS IN RESTRICTED VISIBILITY

When any vessels is manoeuvring within the port with the aid of tugs the minimum visibility required is 2 cables.

Vessels manoeuvring within the port the minimum visibility required is 1 cable.

Vessels however should be reminded by the Duty Harbour Master that any such manoeuvre is at the Masters discretion and sailing rules should be adhered to at all times. (Lookout Rule 5 and Safe Speed Rule 6).