

LARNE PORT



Larne Harbour Limited

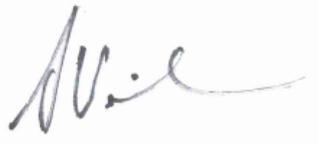
MARINE SAFETY MANAGEMENT SYSTEM

ISSUE 9: Apr 22

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		Issue 9 Date: 04/2022

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Document Status

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Section 1 - Introduction & Overview

1.1 Background

There has been a sea change in the approach of the Government to the management of safety in ports. Following a review of the Pilotage Act 1987, the Government requires that Harbour Authorities discharge their powers and duties in line with the standards set out in the Port Marine Safety Code.

The Code does not create new legal duties but summarises the legal duties and powers of Harbour Authorities relating to marine safety. The Code aims to promote best practice and serves as a framework for the preparation of published policies and plans by Harbour Authorities in consultation with local users and other interests.

The Code relies on the principle that duties and powers in relation to marine operations in ports should be discharged in accordance with a safety management system, which is informed by and based on formal risk assessment. The purpose is to establish a system covering all marine operations in the port, which ensures that risks are both tolerable and as low as reasonably practicable.

Harbour Authorities must demonstrate compliance with the Code by developing appropriate policies and procedures relevant to the scope and nature of marine operations in the port. Larne Harbour must:

- Record and publish its marine policies and make available supporting documentation, refer Appendix 1;
- Set standards and targets of performance that it aims to meet, refer Appendix 2;
- Regularly review and periodically audit actual performance, refer Appendix 3;
- Publicly report on the PMSC performance annually (e.g. in the annual report).

It is no longer sufficient to demonstrate that a lack of incidents indicates effective safety management. To comply with the Code, a proactive and positive approach to safety management must be developed, implemented, audited and reviewed.

1.2 Introduction

This document presents Larne Harbour's Marine Safety Management System, which has been developed in line with the most updated issue of the Port Marine Safety Code and the Guide to Good Practice on Port Marine Operations.

The Marine Safety Management System has been developed with significant input from persons working in the Port, as well as users of the port, and is supported by a series of Risk Assessments. This system, and associated documents, relate to the management of safety of marine operations within the Port of Larne and includes the moving, berthing and un-berthing of vessels and other marine craft within the Port limits and in the approaches to the port. The following figure presents an overview of the general outline of the Safety Management System.

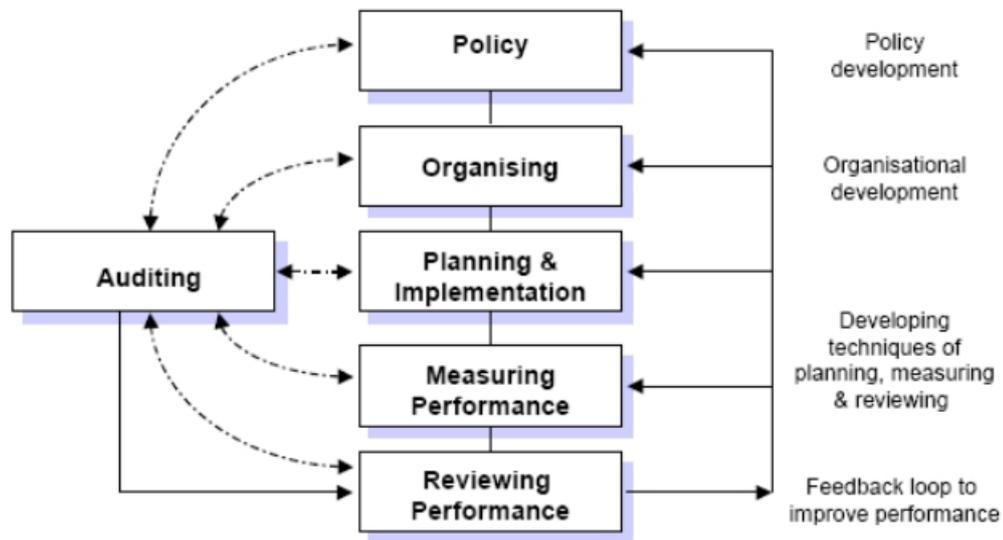


Figure 1 Overview of Safety Management System

1.3 Composition

The Larne Port Marine Safety Management System resides primarily in a computer-based software system which catalogues identified navigational hazards and the risk control measures in place controlling such hazards. This is supported by a number of controlled documents, each relating to a specific area of marine operations within the port. These are supplemented by reference to Statutory and other Industry supporting documents.

1.4 Controlled Documents

- Larne Port VTS Operations and Procedures Manual
- Larne LPS Manual
- Larne Port Pilotage Manual
- Larne Port Harbourmaster's Manual
- Larne Port Emergency Procedures
- Larne Port OPRC Plan
- Larne Port Conservancy Manual
- Larne Port Generic Passage Plans

1.5 Statutory Documents

- Port of Larne Byelaws (1876)
- Curran Pier and Harbour Order (1871)
- Larne Harbour Order (Northern Ireland) 1998
- Port of Larne (Pilotage Function) Order 2002
- Harbours, Docks and Piers Clauses Act 1847
- Harbours Act (NI) 1970
- Dangerous Vessels (Northern Ireland) Order 1991
- Dangerous Goods in Harbour Areas Regulations 2016
- Pilotage Act 1987
- Oil Pollution Planning and Preparedness Convention 1990
- Management of Health and Safety at Work Regulations 1999

1.6 Other Documents

- Port Marine Safety Code and Guide to Good Practice
- ICS Bridge Procedures Guide
- Code of Safe Working Practices for Merchant Seamen
- MSN 1892 (M) The workboat code - Edition 2
- Merchant Shipping Statutory Instruments
- MCA Marine Safety Notices
- MCA Marine Guidance Notices
- MCA Marine Information Notices
- International Regulations for the Prevention of Collisions at Sea
- Admiralty Notices to Mariners
- Admiralty Sailing Directions for Irish Sea
- Admiralty Chart No 1237
- National Competence Standards for Pilots
- IALA Standards for VTS Operations and Training

1.7 Interaction of Elements of the Marine Safety Management System

Hazards are identified, and the associated risks are assessed by expert evaluation and stored within the controlled environment of the HAZMAN Database. Risk control measures are similarly stored in the same database and can be applied to identify hazards. These risk control measures are referenced to elements within the Port of Larne controlled documents. Both hazards and risk control measures are subject to periodic review by identified personnel and the procedures contained within the controlled documents are updated as necessary to take account of any identified changes in the hazard / risk. The HAZMAN Database includes a detailed audit facility for procedural integrity.

1.8 Framework

Within this Marine Safety Management System, the following framework applies.

Purpose: To define the objectives for each element of the port's Marine Operations.

Method: The procedures and practices adopted to ensure the objectives of each element are met.

1.9 Key Performance Indicators

The clearly identifiable markers - both individual and corporate – to measure compliance with the standards of the Port Marine Safety Code.

Principle: What cannot be measured cannot be controlled.

1.10 Defined Targets

The end points which, together with the Key Performance Indicators, enable individuals and the company to evaluate performance and prompt remedial action if necessary.

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Section 2 - Safety Policy

2.1 Purpose

To regulate and facilitate the exercise of the rights of all vessels navigating the port and its environs such that they may do so without danger to life or property, and without harm to the environment.

To secure the long-term viability and improvement of the port by operating safely, efficiently, economically and in a manner, which safeguards the environment.

2.2 Safety Policy Objectives

Accidents and incidents inevitably carry a heavy cost, whether in terms of life, property and environment, disruption and indeed the commercial viability of the port.

Accidents are not inevitable. They usually occur when several risk controls (defences) fail simultaneously. It is the duty and responsibility of all personnel to ensure that all operations are carried out using safe systems of work, and to do all things necessary to ensure the safety of their colleagues, members of the public, and to protect the environment.

The Board of Directors particularly and unequivocally wishes to make it clear that short cuts, acts or omissions which compromise safety are not condoned (either implicitly or explicitly) under any circumstances whatever.

The Board recognises that effective Safety Management is fundamentally dependent upon strong and visible leadership and commitment. The policy statement and its objectives, which underpin the Navigational Safety Management System, are set at Board level, reflecting the Board's commitment to promote an effective safety culture, and demonstrate clearly the acceptance of corporate responsibility for safety.

This commitment from the top is intended to encourage all levels of the organisation with:

- Motivation to achieve and sustain high levels of performance in all safety critical areas ("Safety Culture")
- Encouragement to report incidents and near misses / hazardous occurrences, understand root causes and learn from the experience ("Learning" Culture)
- Acceptance of responsibility and accountability ("Fair and Just" Culture)
- Active participation and involvement of all personnel in the establishment of safe working practices and procedures relevant to their roles ("Consultation" Culture)

Safety is a team effort. The objective to which we must all strive is a zero tolerance to accidents. This can be achieved, but requires the whole-hearted participation of all personnel, from the Board downwards.

2.3 Marine Safety Policy Statement

In order to discharge its duties in compliance with the standards laid down by the Port Marine Safety Code the port undertakes to:

- Manage the safety of navigation for all port users based on a system of formal risk assessments, ensuring that risks are kept as low as reasonably practicable

- Comply with all legal duties and responsibilities for the regulation of vessel traffic and the safety of navigation
- Develop a consensus for safe navigation through consultation with port users
- Maintain and sustain the commercial use of the port, upholding and promoting the rights of Masters, ship owners and other shipping and marine interests to ply their respective trades
- Maintain access to port services, by resourcing appropriate pilotage, traffic management, towage, and mooring services
- Facilitate the leisure use of the port, maintaining and protecting the rights of the public to access its waters for leisure use, whilst complying with the various navigational safety measures that may be in force.
- Sustain its conservancy functions in respect of hydrographic surveying, navigation, dredging and the provision and maintenance of navigational aids
- Remove sunken vessels and other obstructions that are, or may become, an impediment to safe navigation
- Promulgate relevant navigational and tidal information to all port users
- Create awareness and motivation of all port users with respect to safety and the protection of the environment
- Publish and maintain plans to cover emergency situations relating to the safety of life, property or the environment
- Maintain an appropriate oil spill response capability
- Ensure that all Larne Port operational staff are trained to recognised standards and have appropriate experience for their roles and duties

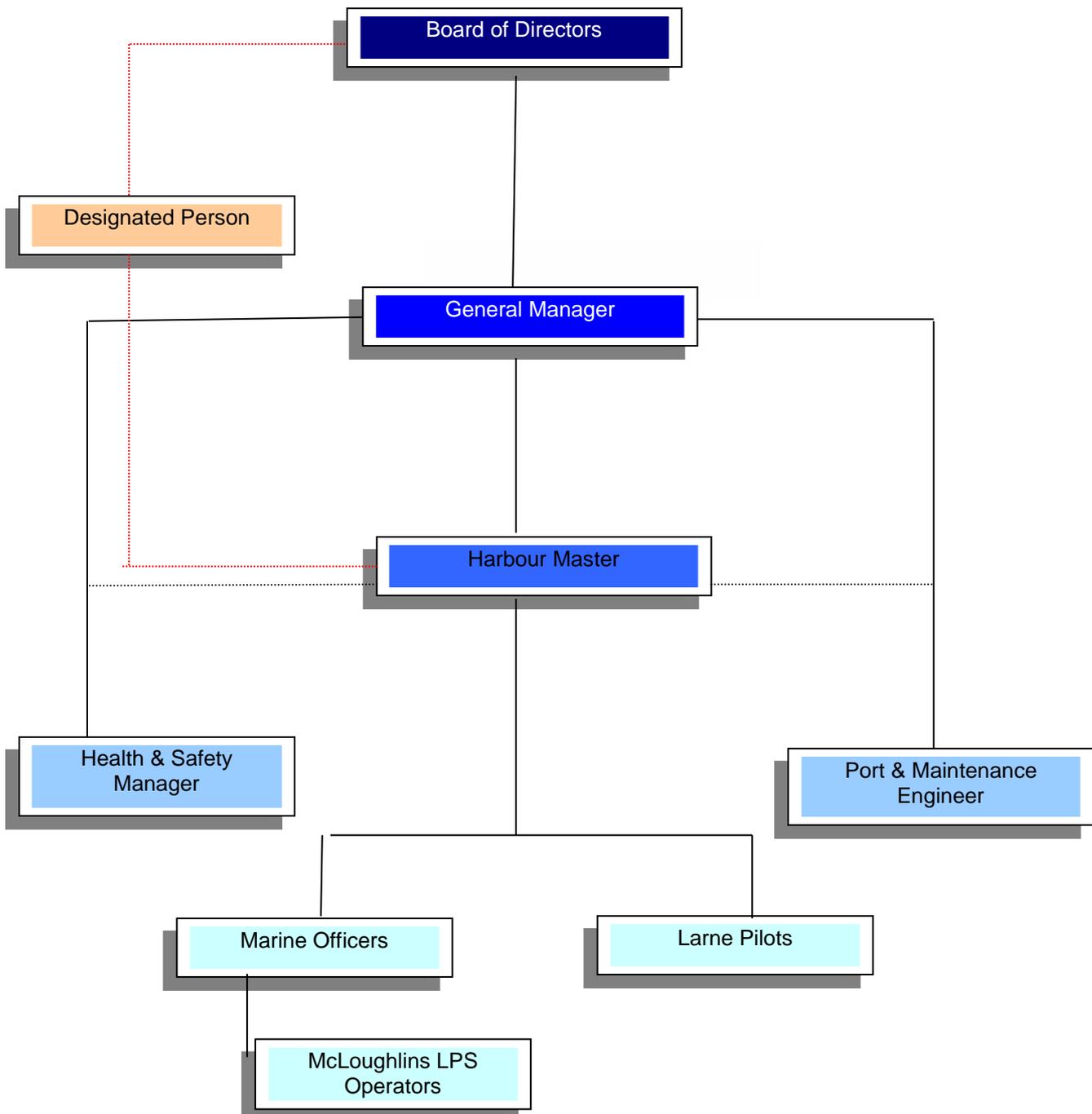
See Marine Navigational Safety Policy issued August 2021

Section 3 - Organisation

3.1 Purpose

To reflect the responsibility of line managers at all levels for developing, implementing and maintaining the Marine Safety Management System in their particular area.

3.2 Organisational Structure



3.3 Responsibilities

<u>Decisions or Actions</u>	<u>Persons</u>				
	<u>Board of Directors</u>	<u>Managing Director</u>	<u>Harbour Master /</u>	<u>Safety Manager</u>	<u>Port Engineer</u>
<u>Creation & maintenance of a supportive safety culture</u>	<u>R</u>	<u>R/S</u>	<u>R</u>	<u>R</u>	<u>R</u>
<u>Establishment and review of strategic policy objectives</u>	<u>R</u>	<u>R</u>	<u>I</u>	<u>I</u>	<u>I</u>
<u>Provision of resources and personnel for NSMS development & implementation</u>	<u>R</u>	<u>R/S</u>	<u>I</u>	<u>I</u>	<u>I</u>
<u>Initiation of action to ensure compliance with policy</u>	<u>I</u>	<u>S/A</u>	<u>R</u>	<u>R</u>	<u>R</u>
<u>Acquisition, interpretation and provision of information on safety matters</u>	<u>I</u>	<u>I</u>	<u>R/I</u>	<u>R</u>	<u>R/I</u>
<u>Auditing and review of Key Performance Indicators</u>	<u>I</u>	<u>I</u>	<u>R/S</u>	<u>S</u>	<u>S</u>
<u>Maintenance of HAZMAN system, including Hazard Review and Risk Control Reviews</u>	<u>I</u>	<u>I</u>	<u>R/S</u>	<u>I</u>	<u>S</u>
<u>Incident investigation and follow-up</u>	<u>A</u>	<u>A</u>	<u>R/S</u>	<u>S</u>	<u>S</u>

- R - Responsibility (not necessarily authority)**
- A - Approval (right to veto)**
- S - Support (make resources available)**
- I - Informed (to be consulted before action)**

The principal roles identified within the structure are defined as follows:

3.3.1 The Board (PMSC- Duty Holder) Key Roles: Assess; Develop; Provide; Maintain; Review

Board members are collectively and individually responsible for the proper exercise of the authority’s legal duties and they cannot assign or delegate their accountability for compliance with the Code on the grounds they do not have particular skills.

The Board must:

- Ensure the authority discharges its duties and powers to the standard laid down in the Port Marine Safety Code. Ensure the Safety Management System and its procedures satisfy the requirements of the Code.
- Ensure the effectiveness of the Safety Management System

- Provide strategic oversight and direction on all aspects of the harbour operation.
- Develop and maintain appropriate policies, plans and procedures and ensure that assessments and reviews are undertaken as required.
- Seek and adopt appropriate powers for the effective enforcement of regulations.
- Ensure that powers are discharged but not exceeded
- Ensure adequate financial, material and personnel resources are available for the discharge of all duties.
- Provide appointment and authorisation, and ensuring that appropriate services and facilities are available within the port (e.g. pilotage, traffic management, tugs, etc)
- Report compliance with the code to the MCA every 3 years.

3.3.2 General Manager/MD**Key Roles: Manage; Monitor; Provide; Review; Communicate**

The GM/MD is accountable for the operational and financial control of the authority. They advise the authority on all matters related to its duties and powers, with appropriate advice from the Harbour Master and other officers. He or she will:-

- Ensure the Safety Management System and its procedures satisfy the requirements of the Port Marine Safety Code, reporting directly to the Board
- Assess the effectiveness and compliance of the Safety Management System
- Ensure the provision of adequate material and personnel resources, liaising with the Harbour Master and other Managers having Safety Responsibility
- Assess progress and results of annual and intermediate Hazard and Risk Control Reviews
- Establish and review strategic navigational Safety Policy Objectives, in liaison with the Harbour Master and other Managers having Safety Responsibility
- Consider and make necessary recommendations to the Board on plans for improvement of the system. Verify that the necessary corrective actions have been implemented
- Approve external Safety Management System Audits and Incident Investigation (and follow-up) Reports.

3.3.3 Harbour Master**Key Roles: Manage; Monitor; Review; Communicate**

The Harbour Master has day-to-day responsibility for the safe operation of navigation and other marine activities in the harbour and its approaches. He or she will:

Safety Management System

- Verify that the Safety Management System and its procedures satisfy the requirements of the Port Marine Safety Code

- Maintain the effectiveness of the Safety Management System
- Ensure plans for improvement of the system are properly considered by Management
- Ensure the external Safety Management System audits take place as required and review results. Verify that any necessary corrective actions have been implemented - See "Audit of the Safety Management System"

Managing Legal Responsibilities

- Ensure compliance with and discharge relevant legal powers, duties and responsibilities relating to Marine Safety
- Ensure periodic review of powers, bye-laws and directions.

Managing Marine Operations

- Regulate and monitor vessel movement. Operation of Traffic Management System.
- Develop criteria for safe traffic movement, where necessary
- Assess hazards and risks involved in Marine Operations. Conduct special Risk Assessments for unusual Marine Operations and authorisation of variations to (or departing from) standard procedures if appropriate. (See Risk Assessment and Permit to Work Systems)
- Verify that periodic and special hazard and Risk Control reviews are completed and assess results
- Investigate Marine Accidents and Incidents. (See Incident Reporting and Investigation)

Managing Marine Conservancy

- Responsible for all hydrographic surveying and associated record keeping for the port area, including navigational channels and berths
- Prepare and collate up to date information on channel data for Harbour Master and Admiralty Hydrographic Office
- Oversee planning programme of maintenance of Navigational Aids

Managing Marine Staff and Resources

- Assessing the requirement for sufficient personnel to operate the port systems safely and effectively
- Ensuring staff awareness of their responsibilities. Ensure personnel are trained in accordance with safety and familiarisation procedures. Identifying additional staff training needs
- Delegating duties as appropriate
- Maintaining effective working relationships

- Ensuring that adequate resources and secondary support procedures are in place, liaising with the Port & Maintenance Engineer and Safety Manager
- Formulating, Reviewing and Updating contingency plans and procedures
- Managing response in emergency situations including communications
- Managing the provision of the Pilotage Service
- Ensuring the provision of a safe and efficient pilotage service to port users
- Managing the recruitment, training, assessment and authorisation of pilots
- Managing the assessment and examination of applicants for Pilotage Exemption Certificates (PECs) and issuing Certificates where appropriate
- Reporting and maintaining Records
- Ensure reports regarding unsafe acts, near misses, accidents and incidents are recorded. Verify that the necessary corrective actions have been implemented.
- Receive Marine Officers Monthly Reports for comment and review. Prepare Harbour Masters monthly report for Board.
- Ensure document control procedures are followed.
- Ensuring safe access to port waters for recreational users - provision and maintenance of appropriate facilities
- Liaison with recreational users on safety matters. Consultation and development of procedures to minimise conflict between recreational and commercial port users. Event management.
- Discharging conservancy duties
- Maintaining an overview of the Conservancy Functions
- Exercise statutory duties in relation to wrecks
- Managing port facilities and marine services
- Ensuring the safe operation and maintenance of port vessels
- Ensuring provision of adequate facilities for safe operation of port.
- Ensuring safe movement of vessels in the port (Traffic Management Operations)
- Day-to-day operation of the Vessel Traffic Service (LPS). Organisation of watch keeping rotas, cover for periods of absence, etc
- Development and implementation of Traffic service procedures
- Monitor LPS performance and ensure personnel are aware of their responsibilities. Ensure personnel are trained in accordance with recognised standards. Identify additional staff training needs.

- Ensure that proper LPS records are kept.
- Liaison with maintenance department
- Liaison with Port Marine Services
- Review and audit compliance of tugs, workboats within the port to appropriate codes.

3.3.4 Designated Person

Key Roles: Assess; Verify; Reporting

The DP provides independent assurance directly to the duty holder that the marine safety management system is worked effectively. Their main responsibility is to determine, through assessment and audit, the effectiveness of the MSMS in ensuring compliance to the Code. Ultimately, it is the Board who decides who should be appointed as the DP to provide the level of assurance that they believe is necessary to comply with the Code. At the Port of Larne the DP is ABP Mer. He or she will:

- Ensure the Safety Management System and its procedures satisfy the requirements of the Port Marine Safety Code and act in an independent manner, reporting directly to The Board.
- Verify the effectiveness and compliance of the Safety Management System
- Assess Safety of Navigation and Pollution Prevention aspects of the harbour environment and of vessels using the harbour
- Assess whether adequate resources and secondary support procedures are in place, liaising with all internal and external stakeholders, having marine safety responsibility
- Be aware of progress and results of annual and intermediate Hazard and Risk Control Reviews
- Ensure reports are submitted regarding deficiencies, non-conformities, accidents and incidents
- Ensure plans for improvement of the system are properly considered by management
- Review Harbour Master's monthly safety report.
- Verify that any necessary corrective actions have been implemented
- Assess whether staff are trained in accordance with required competencies
- Oversee external Safety Management System audits and assess whether document control procedures are followed
- Monitoring the thoroughness of the incident investigation process and the validity of the investigation conclusions
- Monitoring the application of lessons learned from individual and industry experience and investigation
- Assessing the validity and effectiveness of indicators used to measure performance against the requirements and standards in the code

- Assessing the validity and effectiveness of consultation processes used to involve and secure the commitment of all appropriate stakeholders

3.3.5 Authority Officer: Health and Safety Manager

- Assist the Harbour Master on matters regarding port safety
- Advise the Port and Maintenance Engineer on general Health and Safety issues.
- Plan, implement, monitor and evaluate specific Health and Safety working practices
- Investigate accidents and incidents involving people, plant, equipment, and hazardous substances.
- Collect and analyse accident statistics and report on trends
- Monitor and evaluate current procedure and practices
- Disseminate information regarding Health and Safety legislative changes
- Advise on P.P.E.
- Assume responsibility for hazardous cargoes and explosives
- Provide safety training for port employees and contractors

3.3.6 Authority Officer: Port and Maintenance Engineer

- Quays and Dock maintenance and establish, maintain and operate tide gauges and other relevant equipment
- Maintenance of port mooring equipment. Advise on provision, design, etc
- Maintenance of Link spans. Advise on provision, design, etc.
- Process day to day information and keep records for the above.

3.3.7 Authority Officer: Marine Officer

- As outlined in the Larne Port VTS Operations and Procedures Manual

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Section 4 Key Policy Areas

4.1 Management of Navigation

Introduction

There is a general public right of navigation in tidal waters, subject to the payment of proper tolls and dues, and to the provisions of any laws regulating the operation of the harbour which impose special restrictions on the otherwise general freedom of navigation. It follows that harbours have the powers to regulate the entry and movement of ships within ports to ensure safety of navigation. The GTGP states the general principles as:

1. *Ports have rules in byelaws and directions, which every user must obey as a condition of his or her right to use the harbour.*
2. *Harbour authorities have a duty to make proper use of powers to make byelaws, and to give directions (including pilotage directions), to regulate all vessel movements in their waters.*
3. *These powers should be exercised in support of the policies and procedures developed in the authority's safety management system and should be used to manage the navigation of all vessels.*
4. *Harbour authorities should have clear policies on the enforcement of directions and should monitor compliance.*
5. *Powers of direction should be used to require the use of port passage plans in appropriate cases - whether vessels are piloted or not.*
6. *The harbour master may 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 a grave and imminent danger to the safety of persons or property or 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 harbour master must have regard to all the circumstances and to the safety of any person or vessel.*

Purpose

To discharge the Port Authority's responsibilities to regulate traffic for the safety of navigation within the port area of jurisdiction, for the safety of all port users and the protection of the environment,

The General Manager and the Board of Larne Harbour Limited will support the actions of Larne Port Control personnel who use their best endeavours to carry out their duties in accordance with this policy and the Port of Larne "LPS. Manual".

Method

- VTS or LPS Operators recruited and trained to the required industry standards. The Board recognises MGN 401 and IMO Resolution A.857 (20) which requires that the Port Authority should ensure that any VTS Operators are "appropriately qualified, suitably trained and capable of performing the task required". A V.T.S. in the UK is operated by staff trained to the appropriate UK national requirements based on the IALA V-103 international model course, and their requirements are kept current and valid.
- Develop and maintain procedures within the "**Larne Port V.T.S. Manual**" or **LPS Manual** To achieve the following objectives.

Objectives

- Operate a 24 hour Local Port Service to supply information on berth and port conditions, including weather and tidal information within the port. Additionally, at all such times as the Harbour Authority determines by Navigational Risk Assessment that traffic conditions require a higher degree of control and management, to operate a Vessel Traffic Service to monitor ship movements, tide and weather conditions within the port and provide timely information and/or warnings either of a ship-specific or broadcast nature concerning possible hazardous situations.
- Safely and efficiently co-ordinate traffic movements within the port area, including setting criteria for:

- The conduct of navigation in restricted visibility, adverse weather and any other circumstances which might require restriction on navigational movements
- Restricting movement in the main channel to one major vessel at a time.
- Restricting movement of yachts and fishing vessels within the deep-water channels (as may be required for the safety of both major vessels and small craft)
- Provide relevant information to vessels inside and outside the controlling area for the Safety of Navigation.
- Co-ordinate and facilitate shipping and landing of Pilots
- Maintain records of ship movements, communications and significant events within the controlling area, including the recording of radar and VHF radio traffic data.

Key Performance Indicators

- *Incidents (frequency and severity)*
- *Near miss and dangerous occurrence statistics*
- *Compliance with VTS or LPS policies and procedures and industry safety standards*

Defined targets

- *Zero Incidents*
- *Decreasing / negligible near misses, dangerous occurrences*
- *Full compliance with VTS or LPS procedures and industry standards and port policies And procedures.*

4.2 Pilotage

Introduction

Harbour Authorities have duties and powers to provide a Pilotage service. The GTGP recommends that the use of these powers should follow these general principles:

1. *Harbour authorities are accountable for the duty to provide a pilotage service; and for keeping the need for pilotage and the service provided under constant and formal review*
2. *Harbour authorities should therefore exercise control over the provision of the service, including the use of pilotage directions, and the recruitment, authorisation, examination, employment status, and training of pilots*
3. *Pilotage should be fully integrated with other port safety services under harbour authority control.*
4. *Authorised pilots are accountable to their authorising authority for the use they make of their authorisations: harbour authorities should have contracts with authorised pilots, regulating the conditions under which they work - including procedures for resolving disputes.*

Purpose

To provide a competent and reliable service to assist the navigation of vessels entering, leaving and navigating within the Port of Larne.

Method

- It is the policy of Larne Harbour Limited as the CHA to contract out the pilotage of all non-PEC exempted ships to Belfast Lough Pilotage Services (BLPS), who will be, insofar as possible, Unrestricted Pilots.

- BLPS will be trained, examined and authorised to the required industry standards and in compliance with the Pilotage Act 1987 (with subsequent guidance from the Pilotage Review of 1998).
- The CHA requires its pilots to carry out their duties according to the European Maritime Pilots Association's Code of Best Practice for European Maritime Pilots' and the British Ports Industry Training (BPIT) Marine Pilots – National Occupational Standards.
- Develop and maintain procedures within the “**Larne Port Pilotage Manual**” to achieve the following objectives:

Objectives

- To issue Pilot Exemption Certificates on request to any bona fide Deck Officer of vessels regularly using the port, on completion of prescribed qualifying requirements and examination.
- Promote a close and integrated working relationship between Pilots, PEC Holders and Marine Office.
- Promote the use of Port Passage Plans by vessels using the harbour and the generation of generic Port Passage Plans to assist Masters in producing specific Plans
- To issue and periodically review Pilotage Directions to identify the requirements for voluntary and compulsory pilotage, including reporting, boarding and landing areas.
- To review the means of boarding and landing Pilots to ensure that these operations are carried out as safely as possible
- To review of pilotage services and exemption system to ensure that they continue to reflect the requirements of the Port with regard to the Safety of Navigation

Key Performance Indicators

- *Incidents (frequency and severity)*
- *Near miss and dangerous occurrence statistics (see Section 8)*
- *Compliance with VTS or LPS policies and procedures and industry safety standards*

Defined targets

- *Zero Incidents*
- *Decreasing / negligible near misses, dangerous occurrences*
- *Full compliance with industry standards and port policies and procedures.*

4.3 Conservancy

Introduction

There is a duty to conserve a harbour so that it is reasonably fit for use as a port, and a duty of reasonable care to see that the harbour is in a fit condition for vessels to use. The Conservancy duty covers specific requirements, which are outlined in the GTGP as follows:

1. *A harbour authority has a duty to conserve the harbour so that it is fit for use as a port. The harbour authority also has a duty of reasonable care to see that the harbour is in a fit condition for a vessel to be able to use it safely.*

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2. *Harbour authorities should provide users of the harbour with enough information about conditions in the harbour such as depths of water, local Notices to Mariners etc.*
3. *Harbour authorities have duties and powers as local lighthouse authorities (or providers of local aids to navigation); and specific powers in relation to wrecks.*

Purpose

To conserve, maintain and protect Larne Port and its environment for the benefit of all users including commercial users, leisure users and wildlife interests

Method

- Develop and maintain procedures within the “**Larne Port Conservancy Manual**” to achieve the following objectives :

Objectives

- To maintain adequate depth in the channels and at the berths, consistent with reasonable port user requirements
- To ensure that channels are maintained clear of wrecks, obstructions or other dangers to navigation
- To carry out hydrographic surveying as required and promulgate timely and accurate results to port users and Hydrographic Agencies
- In conjunction with the Commissioners of Irish Lights, to provide and maintain adequate navigational aids, consistent with port user requirements to facilitate safe navigation within the port and its approaches, based on risk assessment .
- To promulgate warnings to port users of changes to navigational aids, depths or other dangers to navigation

Key Performance Indicators

- *Hydrographic Surveys (Frequency and promulgation)*
- *Navigation aids (performance and reliability)*
- *Notices to Mariners*
- *Surveys carried out as per IHO Standards S66*

Defined Targets

- *Hydrographic Surveys completed to schedule and results published*
- *Navigation aids (100% operability)*
- *Published as required*

4.4 Marine Services

Introduction

Marine Services takes in the full range of support services, including the use of tugs and workboats in a harbour, and the provision of moorings, which help the harbour authority to maintain the Safety of Navigation, and to conserve the hydrographic regime. The GTGP puts forward these general principles in relation to Marine Services:

1. *An authority's safety management system should cover the use of harbour and the provision of moorings.*
2. *The formal safety assessment should be used to identify the need for, and potential benefits for safety management of harbour craft.*

3. *The authority should ensure that harbour vessels or craft which are used in the harbour are fit for purpose and that crew are appropriately trained and qualified for the tasks they are likely to perform.*
4. *Byelaws and the power to give directions are available for these purposes.*

4.4.1 Tugs (Towage Services)

Purpose

The Guide to Good Practice requires ports to produce Towage Guidelines. The purpose is to keep under review the provision of adequate towage capacity within the port for the requirements of port users, and that such tugs have adequately trained and qualified crew.

Towage Guidelines are contained in the “**Marine Services Manual**”

Method

- By assessment of the towage requirements, to ensure that adequate tugs are available for all reasonable port user requirements was carried out during the risk assessment process. This will be subject to periodic review and / or if conditions materially change.
- By developing towage guidelines in consultation with pilots and port users, taking into account the characteristics of the port and the vessels using it.
- By developing, in consultation with tug operators, tug inspection and audit procedures including certification of personnel.

4.4.2 Pilot Launches & Workboats

The GTGP stipulates that Harbour Authorities have a duty to approve the use of vessels as pilot launches. Any vessel approved as a pilot launch must satisfy the Merchant Shipping (Small Work Boats) Regulations 1998 and the associated MSN 1892 (M) The workboat code - Edition 2

Similarly, the Harbour Authority must ensure that the Work Boats used in the Harbour comply with the Merchant Shipping (Small Work Boats & Pilot Boats) Regulations 1998 and the associated Safety of Small Workboats and Pilot Boats - A Code of Practice, and that they are fit for purpose for any use to which they are put.

Pilot Launch & Workboat procedures are contained in the “**Marine Services Manual**”

Key Performance Indicators

- *Vessel delays awaiting tugs/workboats*
- *Incidents (frequency and severity)*
- *Near miss and Dangerous Occurrence Statistics (see Section 8)*
- *Compliance with port policies and procedures and industry safety standards.*

Defined Targets

- *Nil delays*
- *Zero Incidents*
- *Decreasing / negligible near misses, dangerous occurrences*
- *Full compliance with industry standards and port policies and procedures*

4.4.3 Mooring

The GTGP states:

“Harbour authorities have powers in byelaws and directions to regulate the mooring of vessels in the harbour. The safety management system should govern the use of these powers. Appropriate use should be made of mooring plans. These should not necessarily be left to the master or pilot: it may be appropriate to promulgate agreed requirements after discussion with users and pilots. Authorities should also ensure that mooring parties meet the industry's competence standards, and have access to appropriate training, including mooring processes and procedures referenced in the MSMS”.

Procedures for Mooring Operations are contained in the **“Marine Services Manual”**

Key Performance Indicators

- *Vessel delays awaiting mooring gang.*
- *Incidents (frequency and severity)*
- *Near Miss and Dangerous Occurrence Statistics (see Section 8)*
- *Compliance with port policies and procedures and industry safety standards.*

Defined Targets

- *Nil delays*
- *Zero Incidents*
- *Decreasing / negligible near misses, dangerous occurrences*
- *Full compliance with industry standards and port policies and procedures*

4.4 Leisure Users

Purpose

To ensure reasonable access to and use of the waters of the Larne Port for the benefit of leisure users, subject to compliance with the instructions of LPC
To avoid conflict with and protect leisure users from any dangers arising from the movement of commercial vessels operating within the port area

Method

- Education and liaison with local groups representing leisure users.
- Promulgation of guidance to leisure users in the Port of Larne
- Establish procedures (including VHF communication) for waterborne events in and adjacent to the port area.
- **Monitoring and communication with leisure craft.**

Key Performance Indicators

- Incidents (frequency and severity)
- Near miss and Dangerous Occurrence Statistics
- **Complaints from Leisure and Commercial Users**

Defined Targets

- Zero Incidents
- Decreasing / negligible near misses, dangerous occurrences
- Decreasing / negligible complaints

Section 5 - Personnel Resources

Introduction

The Board recognises that employees and contractors have an important part to play, and the contribution of each individual can be critical in providing a safe and efficient operating environment within the port. The Board is committed to ensuring that all personnel have adequate experience and receive all appropriate training to enable them to perform their duties to the relevant standards.

5.1 Training and Competence

5.1.1 Employee

Purpose

To maintain procedures to ensure the recruitment of appropriately qualified and experienced personnel and increase competence through identification of training needs and provision of appropriate training for all personnel.

Method

Action by Head of Department:

- Identify manner in which tasks are to be performed
- Identify competencies - abilities, skills, knowledge required
- Select / recruit appropriate staff and / or provide training if required
- Maintain training records / professional advancement file on all personnel
- Periodic performance review

Personnel in safety critical roles will not assume full responsibility until minimum understudy periods have been completed and the person examined and deemed competent by the appropriate head of department or an approved deputy.

Key Performance Indicators

- *Incidents (frequency and severity)*
- *Near miss and dangerous occurrence statistics (see Section 8)*
- *Compliance with port policies and procedures*
- *Completion of prescribed training*
- *Appraisal results (Competence)*

Defined targets

- *All new employees will receive basic induction training within the first week*
- *Zero incidents*
- *Decreasing / negligible near misses, dangerous occurrences*
- *Full compliance with industry standards and port policies and procedures*
- *Satisfactory skill level demonstrated*

5.1.2 Contractors

Purpose

Procedures should:

1. Co-ordinate contractor's activities with those of the port and other contractors as appropriate
2. Ensure contractors operate to equivalent standards to those of port personnel / operations

Method

- Contractor activities which may impinge on port operations shall be subject to either risk assessment or procedural review and a method statement produced prior to the start of work identifying hazards, risk controls and communication procedures required. Once underway, the work will be subject to inspection by the appropriate port department to ensure that procedures are adhered to. Violations will result in cessation of activities until appropriate steps have been taken to rectify.
- Contractors will be selected on the basis of:
 1. *Assessment of contractor's competency, past performance and safety records*
 2. *Assessment of contractor's own training and development programs*
 3. *Professional accreditation where applicable*
- Contractors for safety critical areas to undertake induction training as appropriate before start of work.
- Where appropriate, contractors are required to work within or to procedures, which are at least equivalent to those of the Port Authority's Permit to Work Procedures. Refer to Permit to Work System.

Key Performance Indicators

- *Incidents (frequency and severity)*
- *Near miss and dangerous occurrence statistics (see Section 8)*
- *Compliance with port policies and procedures and industry safety standards*
- *Assessment of competence and training standards*
- *Interference with port operations minimized*

Defined Targets

- *Zero incidents*
- *Decreasing / negligible near misses, dangerous occurrences*
- *Full compliance with industry standards and port policies and procedures*
- *Best industry standards and level of employee training*
- *No impact (or positive outcome) on port operations*

5.2 Drug & Alcohol Policy

Purpose

To ensure that personnel (including contractors) are at all times in a fit condition to carry out their various duties and exercise their required duty of care towards their colleagues and others i.e. to safeguard human life, port and public property and the environment.

Method

- Personnel (and contractors) will be advised of the port's policy on Drug and Alcohol. The Port of Larne recognises the impact that misuse of drugs and alcohol can have on the quality of life for its employees and on the safety and efficiency of its operation. The Company is committed to minimizing the impact of abuse on its employees and operations by applying the Rules as outlined in the "Drug & Alcohol Policy"

Key Performance Indicators

- *Measurement of the number of personnel tested for alcohol / drugs*

Defined Targets

- *Zero drug detections*

5.3 Medical Fitness

Purpose

To ensure that personnel are at all times in a fit condition to carry out their various duties and exercise their required duty of care towards their colleagues and others - i.e. to safeguard human life, port and public property and the environment.

Method

- Personnel engaged in safety-critical unaccompanied tasks will be required to undergo periodic medical examinations at intervals of not less than every 2 years and more frequently if required.
- Larne Port Control room is a single-person operation. The LPC room is included in Security Patrols routine calls, for safety monitoring.
- Pilots may be required to demonstrate the ability to climb 9m vertically on a standard pilot ladder.
- It is the duty of each employee to report any condition which could affect their ability to carry out their duty.

Key Performance Indicators

- *Medical condition of employees*

Defined Targets

- *All employees clear of conditions which could impair their ability to carry out their duties*
- *No evidence of impairment*

Section 6 - Implementation

6.1 Monitoring

Purpose

To ensure that procedures and work instructions developed at the planning stage are conducted in accordance with policy and that verification of activities and tasks is conducted according to relevant procedures.

Method

- Identify and document the monitoring information to be obtained
- Specify and document monitoring procedures and locations and frequencies of measurement
- Establish, document and maintain measurement quality control procedures
- Safeguard measurement systems from unauthorized adjustments or damage

Key Performances Indicators

- *Active monitoring performance*
- *Learning opportunities from non-conformances*
- *Integrity of the systems*

Defined Targets

- *A predetermined proactive review programme is adhered to*
- *Learning opportunities are used constructively and to positive ends – i.e. no repeat incidents*
- *Integrity of systems is maintained*

6.2 Recording

Purpose

- To store corporate knowledge on safety systems
- To demonstrate the extent of compliance with policy and its requirements, and to record the extent to which planned objectives and performance criteria have been met.
- To document the status of the system at a given time and enable reference to identify and quantify trends and tendencies

Method

Develop and maintain procedures to ensure the integrity, accessibility and control of the following records:

- Hydrographic Surveys
- Inspection & Maintenance Records (e.g. Navigational Aids, Radar, Radio, Quays, Fenders, Mooring Equipment, Workboats, etc)
- Incident & Near Miss / Dangerous Occurrence and Investigation Reports
- Byelaws and other offences
- Logbooks and Defect Reports
- Results of audits and reviews
- Training Records

- Employee Medical Records
- Establish and record retention times of records and archiving procedures
- Develop procedures to secure the availability and confidentiality of records, in accordance with GDPR regulations

Key Performances Indicators

- *Extent to which records are reliable and valid*
- *Extent to which records are readily accessible*
- *Extend to which sensitive records are secure*

Defined Targets

- *Information / data is correctly recorded and stored*
- *Procedures for maintaining the integrity and accessibility of records are adhered to*

6.3 Documentation System

Purpose

Record the current status of:

- Safety policy objectives and plans
- Key roles and responsibilities, authorities and lines of communication
- Safety management system elements and their interaction
- Standard operating procedures and work instructions for key activities and tasks
- Related documents - cross reference those documents which comprise the system
- Risk Assessments in force
- Reference relevant legislative and regulatory requirements
- Emergency plans and responsibilities, and means of responding to incidents and potential emergency situations

To make all the above information available and comprehensive to all personnel who require it.

Method

- Identify all documents comprising the Navigational Safety Management System with appropriate notations. The system must be clear, concise and user-friendly, with all certification, manuals and files indexed.
- Documents should be dated and include a list of pages to ensure that the latest up to date editions are held
- Distribution should be via controlled copies as far as possible. Controlled documents should be circulated and held by other parties as agreed and listed. Document holders must confirm receipt. A procedure must be in place for the amendment of controlled copies and include verification that amendments have been carried out by the document holder
- Uncontrolled copies to be kept to an absolute minimum and so marked on each page. Holders of uncontrolled copies should be recorded, and returned or destruction of the documents confirmed when no longer required

- Documentation not located centrally should be archived and a back-up copy maintained by the Harbour Master.
- Authorised personnel to approve adequacy prior to issue, together with review period. Authorised personnel to review and revise as necessary at the prescribed intervals. Review must include consideration of consistency with current practice and requirements of policy. During review, obsolete, outdated and superfluous documentation must be removed and either destroyed or archived depending on its importance.
- Operating Procedures and / or guidance notes must be produced for each function (e.g. LPS, Pilotage, etc) as deemed necessary, to describe the activities to be carried out for each operational process or task, including any precautionary measures that need to be observed.
- Operating Procedures shall be set out in a consistent manner and where appropriate will be set out clearly for each activity:
 1. *A description of the activity to be done, with all requirements*
 2. *When (i.e. frequency) it is to be done*
 3. *By whom it is to be done*
 4. *What records are to be kept*
- Where the sequence of steps is critical in any given activity, it will additionally be necessary to specify such sequence

Key Performance Indicators

- *Establishment of workable distribution, filing and indexing system*
- *Extent of compliance with procedures*
- *Personnel awareness of system (Appraisal)*

Defined Targets

- *Maintenance of the integrity of the system*
- *Only have controlled copies in circulation*
- *Full understanding of the system*

6.4 Non-Compliance Identification & Implementation of Corrective Action

Purpose

To maintain and refine the integrity of the Safety Management System

Method

Channels to report non-compliance must be provided within:

- Audit and monitoring programs
- Internal reporting procedure (e.g. Near Miss reporting)
- External Reporting Channels
- Incident Investigation

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Responsibility and / or authority must be defined for:

- Reporting Non-Compliance
- Initiating / Carrying out assessment / investigation
- Initiating corrective action
- Promulgation of changes to procedures as appropriate

Key Performance Indicators

- *Clarity of assignment of responsibility and authority*
- Quality and source distribution of incoming reports

Defined Targets

- *Up-to-date organizational and RASI (responsibility, approval, support, information) charts*
- *Intelligent and relevant reports well balanced between audits and internal (voluntary) reporting. Lack of external reports, customer complaints.*

6.5 Incident Reporting & Investigation

Purpose

To enable root cause(s) to be established, lessons to be learned and appropriate actions to be taken to prevent recurrence.

Incidents which are reportable to the MCA, MAIB or Local Police Services within the Harbour will be reported to the relevant authority by the Harbour Master or Marine Officer within the legal time frame.

Method

Develop procedures for investigation and corrective action which ensure:

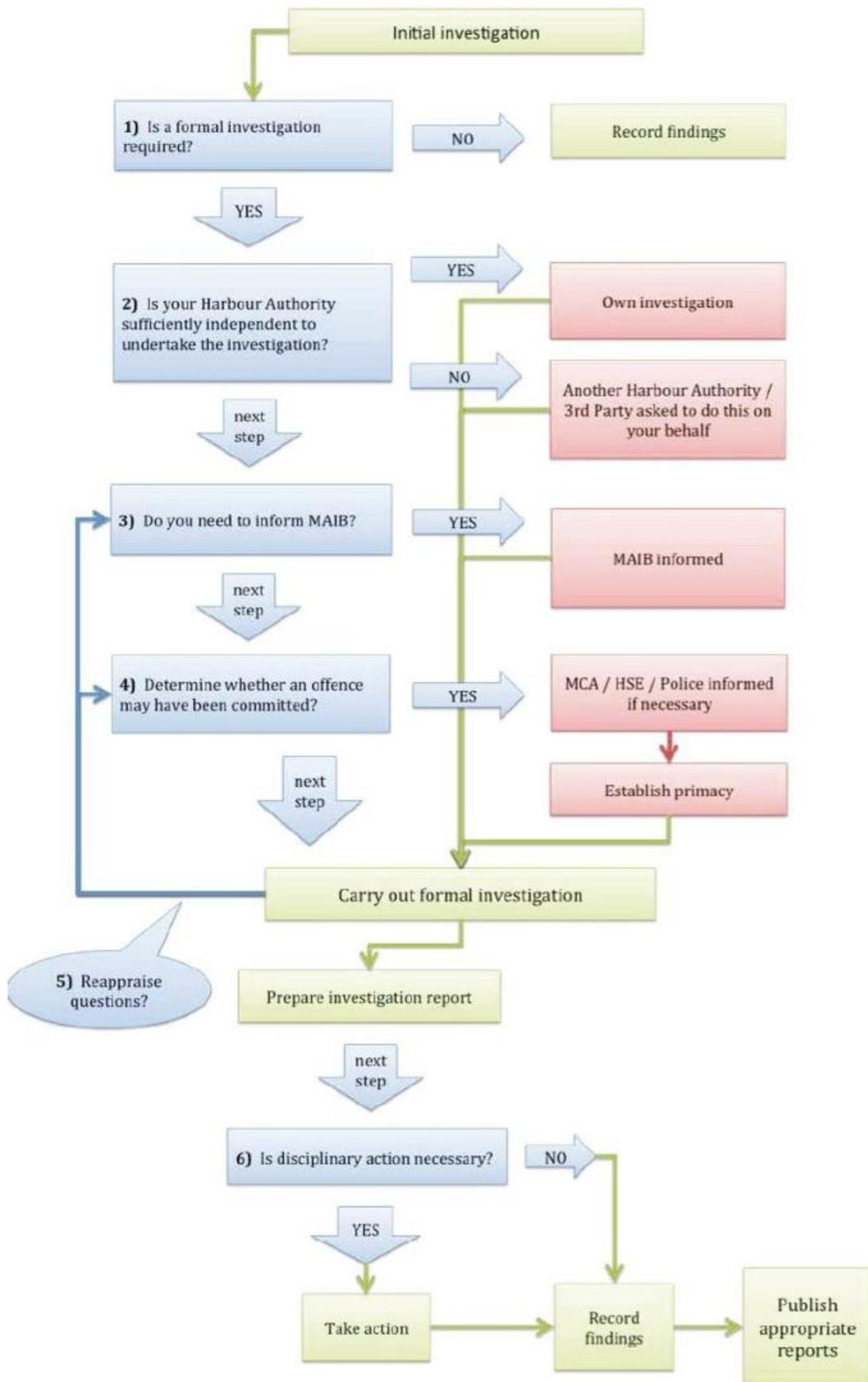
- Reporting (including statutory reporting) requirements are observed.
- Root (or likely root) causes are determined.
- A plan of action is established to reduce the possibility of recurrence and / or mitigate the consequences (to "ALARP" Levels). Appropriate approvals obtained.
- Preventive actions are initiated.
- Controls / Monitoring are applied to ensure that any preventive actions taken are effective.
- ~~Procedures are revised to incorporate actions to prevent recurrence, and changes are communicated to relevant personnel.~~
- Establish lessons learned and disseminate findings.

Key Performance Indicators

- *Number and severity of incidents occurring*

Defined Targets

- *All incidents investigated in accordance with defined procedures and closed out within agreed timeframe.*
- *Incidents progressively reducing in severity and number with time.*
- *Lack of "repeat" incidents (a "learning culture")*



6.5.1 Harbour Authority and External agencies

Purpose

To define the relationship between the harbour authority and external agencies during an emergency.

The harbour authority will take the initial lead in any emergency or incident which takes place within the area of the Statutory Harbour Authority.

With reportable marine accidents, the MAIB will commence to take the lead with the MCA as prosecuting agency.

In shore-related accidents, the HSENI will take the lead with the PSNI as prosecuting agency.

In an emergency, the Harbour master or his deputy will take the lead and coordinate any initial actions, until such time as the Fire services or the Police service take over the command of the incident.

Method

- Develop clear emergency instructions and plans
- Regularly carry out drills in conjunction with local emergency services

Key Performance Indicators

- *Have up to date contact details of external agencies.*
- *Attend multi agencies meeting*

Defined Targets

- *Reduced response time*
- *Smooth coordination during an emergency*

6.6 Enforcement

Purpose

Larne Harbour Limited is empowered to prosecute offenders for breaches of the Larne Harbour Order (Northern Ireland) 1998 and Special or General Directions made under the Order, and other local legislation including Byelaws.

In order to ensure compliance with the provisions of this legislation where navigational safety and protection of the environment are concerned, it is necessary that an effective enforcement regime is maintained and published to deter non-compliance.

Method

- Develop and maintain effective enforcement procedures based on continuing review of relevant legislation and the provision of appropriate training for Port staff
- Adjustment to changing circumstances by seeking to take additional powers whenever needed.
- Respond to breaches of the Orders and Byelaws, as justified by the evidence and other circumstances, by the use of formal warnings and legal prosecutions.
- Maintain appropriate records of investigations.

Key Performance Indicators

- *Reports of breaches of the Act, Byelaws and General Directions*
- *Formal written warnings*
- *Prosecutions*

Defined Targets

- *Decreasing / negligible breaches*

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Section 7 - Risk Assessment & Control

Introduction

The traditional response by governments to incidents was to introduce reactionary legislation, sometimes with the result that valuable resources were unfortunately misdirected in order to comply with the law. In a new departure, the Port Marine Safety Code requires that the Marine Safety Management System is based on a system of Formal Risk Assessment. This is also the principle, which underpins the safety culture necessary to achieve incident-free operations.

The Risk Assessment process systematically identifies the hazards and consequences which may occur, or arise from, the activities of the port. The scope is all-encompassing and includes navigational, geographical, weather, operational and vessel-related issues.

Hazards may be “Core” – i.e. ongoing part of the port operation with an indefinite time span or “Particular” – i.e. relating to individual circumstances or occurrences.

The core risk assessments were obtained from the results of the study carried out by Marine & Risk Consultants Ltd in 2000/01. They reside in the HAZMAN hazard management system. They are subject to periodic review and continuous audit, both facilities being built into the program. The core risk assessments will be maintained and added to (or possibly removed) as time progresses. Particular risk assessments may be added but will be deleted when no longer applicable.

7.1 Risk Assessment

Purpose

To assess the risk of a given hazard developing its potential for harm, in terms of consequence to life, property, the environment or the stakeholder (Larne Port). The assessed risk can then be considered in relation to any measures already in place to control it and additional risk control measures can be considered, if necessary, to bring the risk to a condition known as **ALARP - “As Low As Reasonably Practicable”**.

Method

1. Identify hazards and possible consequences by means of personnel interviews, consultation with relevant stakeholders, review of incident data and HAZMAN workshops.
2. Evaluate the risk associated with the hazard in terms of frequency (likelihood) and consequence to life, property the environment and the port in both the most likely and worst credible scenarios, using the criteria set out in Resources, below.
3. Identify and evaluate measures (risk controls) currently in place. Risk control measures include both those which prevent or reduce the probability of occurrence, and those which mitigate the consequences if they do occur. Preventative measures should be emphasised wherever practicable. Mitigation measures include :
 - steps to prevent escalation of developing abnormal situations
 - steps to lessen adverse effects on health, safety and the environment
 - emergency response and recovery steps
4. Assess whether measures currently in place are adequate for the control of the risk (ALARP) and if so, go to step 8. Otherwise continue: -

5. Identify and evaluate further potential risk control (prevention and mitigation) options. Identify and evaluate any hazards arising from implementation of these options.
6. Evaluate the tolerability of residual risks. If not ALARP, go back to step 5.
7. Implement selected risk control measures to bring the risk to the ALARP condition
8. Monitor activities to ensure that the measures proposed do reduce risk and enable relevant objectives to be met

Note 1 – Risk Assessment is usually carried out on the basis of all current risk control measures being in place; this allows assessment of likely frequency and consequence using expert assessment / local experience. In exceptional circumstances, it may be necessary to work on the basis of no risk controls being in place. Such risk assessments cannot be incorporated into the body of core risk assessments, as the baseline is incompatible.

Note 2 - Cost-Benefit analysis may be appropriate to identify the most suitable risk control option(s)

Note 3 – Risk Assessment may be used in conjunction with the Permit to Work and Management of Change procedures

Hazard frequency is assessed according to the following scale:-

Frequency		
1.	Extremely Unlikely.	Less than once in 500 years.
2.	Very Unlikely.	Less than once in 100 years.
3.	Remote/possible.	Less than once in 50 years.
4.	Reasonably Probable.	Less than once in 20 years.
5.	Frequent.	Less than once in 5 years

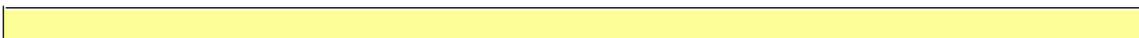
Hazard consequence is assessed according to the following scale:-

CONSEQUENCE				
Cat. Score	People	Property	Environment	Port Business
1	None	Negligible < £5000	Negligible < £5000	Negligible < £5000
2	Minor (single slight injury)	Minor (> £5,000)	Minor Tier 1 (small operational) oil spill or environmental amenity impaired	Minor (>£5,000)
3	Slight (multiple moderate or single major injury)	Moderate (> £50,000)	Moderate Tier 2 (regional assistance - lower end) oil spill, multiple amenities impaired	Moderate Bad local publicity or short-term loss of dues, revenue, etc (> £50,000)
4	Serious (multiple major injuries or single fatality)	Serious (> £200,000)	Serious Tier 2 (regional assistance – major response) oil spill, multiple amenities impaired	Serious Bad widespread publicity, temporary port closure or prolonged restriction of navigation (> £200,000)
5	Major (More than one fatality)	Major (>£2,000,000)	Major Tier 3 (national assistance) oil spill, widespread flooding or extensive damage to amenities	Major Port closes, navigation seriously disrupted for more than 1-2 days. Long term loss of trade

Frequency and consequence values are converted to risk by reference to the following table:

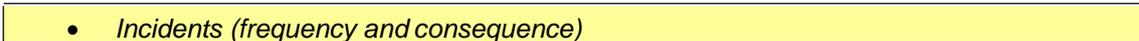
	Cat 5	5	6	7	8	10
	Cat 4	4	5	6	7	9
	Cat 3	3	3	4	6	8
	Cat 2	1	2	2	3	6
	Cat 1	0	0	0	0	0
Consequence	Frequency	<1 in 500 yrs	500 to 100 yrs	20 to 50yrs	1 to 20 yrs	>1 in 5 years

From Score	To Score	Category	Action
0	2	Negligible Risk	Periodic review
2	4	Low Risk	Periodic Review
4	6	ALARP	Review risk control options and monitor.
6	8	Significant Risk	Identify additional mitigation measures.
8	10	High Risk	Immediate mitigation required.



Key Performance Indicators

- *Navigational Safety Management System (HAZMAN) review process*
- *Near miss and dangerous occurrence statistics (see Section 8)*



- *Incidents (frequency and consequence)*

Defined Targets

- *Navigational Safety Management System (HAZMAN) reviews completed to schedule.*
- *All Hazards / Risks evaluated as being within or below "ALARP"*
- *Decreasing / negligible near misses, dangerous occurrences*
- *Zero Incidents*

7.2 Promulgation of Risk Assessments

Purpose

To promulgate information of those hazards / risks (core and particular) identified as significant to safety and to identify the measures in place to reduce them.

To make relevant personnel aware of the risk control requirements for specific hazards (i.e. the pre-requisites for the operation or procedure to proceed).

Method

- This is achieved by generating printouts from the HAZMAN risk management tool for reference purposes in the case of 'core' risk assessments and by the issue of a permit to work or method/procedure statement in the case of a particular risk assessment.

Key Performance Indicators

- *Reference copies of Hazard printouts / permits / method or procedure statements filed with distribution list.*
- *Distribution of Hazard printouts / permits / method or procedure statements with risk control data. Access to HAZMAN for personnel involved in the relevant operations*

Defined Targets

- *Timely production of periodic listings*
- *All relevant personnel in possession of relevant listings and aware of content.*

Section 8 - Safety Culture

8.1 Safety Assessment

Purpose

To ensure that all work is carried out in a way which meets appropriate safety standards and performance criteria. This requires:

- A clear understanding and identification of the safety objectives
- Designation of
 1. Responsibility for setting and achieving safety objectives and performance criteria at each relevant function and level of the port
 2. The means by which they are to be achieved
 3. Resource requirements
 4. Timescales for implementation

Method

Identify activities for which the absence of written procedures could result in infringement of the policy, or breaches of legislative requirements or performance criteria
Prepare documented procedures or standards for such activities, defining how they should be conducted - whether by the port's own employees, or by others acting on its behalf - to ensure operational integrity and the effective transfer of knowledge

Note - Systems of work should include:

- Hardware and procedures which facilitate, motivate and encourage personnel toward a suitable and non-violable (compliant) safety culture
- Mechanisms to provide feedback to personnel on safety performance
- Processes to recognise good personal and team safety performance
- Mechanisms for evaluation and follow up

Key Performance Indicators

- *Adherence to documented systems (employees and contractors).*
- *Near miss and dangerous occurrence statistics Incident statistics*

Defined Targets

- *Adherence to documented systems at all times*
- *Observance of Industry Best Practice*
- *Zero incidents*
- *Decreasing / negligible near misses, dangerous occurrences*

8.2 Permit To Work System

Purpose

To ensure that hazardous work is carried out in a way which minimises any danger and meets appropriate safety standards and performance criteria (including any statutory requirements). This requires:

- A clear understanding and identification of the particular hazards and risk control measures required
- Designation of responsibility for verifying that all required risk control measures are in place and that no abnormal conditions exist which would invalidate the risk assessment.
- Designation of authority to authorise permits to work.

Works covered by the Permit to Work System are akin to 'standardised' risk assessments and a similar approach is required. In particular it should be verified that the particular conditions of the work are consistent with that for which the permit was intended: any deviation should require a full risk assessment to be carried out. Works covered by the PTW system include:

- Work involving immobilisation of engines / steering
- Diving operations in the Harbour
- Tank cleaning
- Hot work outside the vessels enclosed spaces eg Engine room, machinery spaces, accommodation
- Personnel Entry into Enclosed Spaces or over-side works above water
- Variation of Standard Operating Procedures

Ships or outside contractors must request port approval via Larne Port Control prior to commencing such activity by completing the relevant Request Form and attaching Risk Assessment and Method Statement.

Method

- Responsible Person identifies hazards and verifies that all required risk control measures are in place and fully operational.
- All personnel / organisations likely to be affected by the work informed
- Communications verified operational
- Authorising Person countersigns permit to work
- Work is monitored to verify compliance with conditions of permit.
- On completion of work , the permit is cancelled
- All relevant personnel / organisations affected by the work informed

Key Performance Indicators

- *Adherence to documented systems (employees and contractors).*
- *Near miss and dangerous occurrence statistics*
- *Incident statistics*

Defined Targets

- *Adherence to documented systems at all times*
- *Observance of Industry Best Practice*
- *Zero Incidents*
- *Decreasing / negligible near misses, dangerous occurrences*

8.3 Management of Change

Purpose

To plan for and control changes, both temporary and permanent, in people, plant, processes and procedures to avoid adverse safety consequences.

Method

Procedures should be developed which address the safety issues involved and which are also commensurate with the nature of the changes and their potential consequences. These should include:

- Identification and documentation of the proposed change and its implementation
- Responsibility identified for reviewing and recording the potential safety hazards from the change or its implementation
- Documentation of the agreed change and implementation procedure including:
 1. Measures to identify safety hazards and to assess and reduce risks and effects
 2. Communication and training requirement
 3. Time limits, if any
 4. Verification and monitoring requirements
 5. Acceptance criteria and action to be taken if breached
 6. Authority for approval to implement the proposed change

Note – Although there are similarities between the Management of Change and Risk Assessment procedures, they are not the same. Notwithstanding, the techniques outlined in the Risk Assessment Section (Section 7.1) may be employed to evaluate the impact of changes. Where changes under this heading affect the core risk assessments, the risk assessment process should be completed as a part of this process.

Key Performance Indicators

- *Documentation (completeness)*
- *Otherwise as for Risk Assessment*

Defined Targets

- *Operations do not commence without adherence to framework above*
- *Otherwise as for Risk Assessment*

8.4 Near Miss Reporting

In an organisation which operates within tight margins (for example, in terms of ferry turnarounds) and relies on adherence to agreed procedures and the competence of its workforce, it is vital that its safety information systems are of the highest quality. Most organisations operating in a safety-critical environment recognise that actual incident rates are too crude a measure of safety performance. They need to be attuned instead to near misses and unsafe behaviours that may signify more serious incidents.

Near misses are occurrences, which, under slightly different circumstances, could have given rise to far more damaging consequences. Such consequences may have been avoided either by 'luck', i.e. a random combination of circumstances, or by purposeful action, i.e. 'recovery'. Near misses can range from a partial penetration of the defences to situations in which all the available safeguards were defeated, but no actual loss occurred. The former provide useful

proactive information about the quality of safety defences, whilst the latter are indistinguishable from fully-fledged accidents in all but outcome.

Purpose

To provide valuable learning opportunities without the repercussions associated with major incidents.

Further specific advantages of near miss reporting which have been identified include:

- **Performance monitoring** – Organisations such as Larne Harbour Limited, which have maintained a low accident rate, paradoxically cannot measure their ‘safety performance’ in a reliable way. However, near misses can be used for monitoring of critical events. Such data can then form the basis for allocating resources, prioritising interventions and evaluating their subsequent impact.
- **Identifying underlying causes** - Near misses and more serious incidents generally have a largely overlapping set of ‘root causes’. The study of near misses should therefore lead to the identification of similar shortcomings to those which increase vulnerability to more serious incidents.
- **Improving organisational responsiveness** - Understanding the sequence of events associated with a near miss can improve the potential for incident recovery.
- **Maintaining appropriate levels of risk awareness** - The absence of any serious incidents can lead to complacency and a misplaced sense of security. Disseminating near miss data can counteract such perceptions.

Method

To make such a reporting system work, both management and the workforce need to recognise its value and be committed to its success. Experience in many organisations which have tried to implement such a system suggest that there are a large number of individual and organisational barriers which can deter reporting, the greatest of which is the expectation of blame or disciplinary action. Required successful elements are:-

- Reporting systems (reasons, methods and channels of communication) must be publicised to all personnel.
- Policy for dealing with reports and, in particular, limitations on the “no-blame” policy must be clearly understood. Immunity cannot be given for acts or omissions, which are themselves culpable or contrary to the Law.
- Promulgation of near miss and dangerous occurrence data to all personnel. Use in safety seminars, discussion groups.
- Feedback. Promulgation of management response (comment and/or action). Where immediate response is not possible, expected time-scale of delivery to be advised.

Key Performances Indicators

- *Report Statistics - quantity and content of report received*
- *Management response.*

Defined Targets

- *Consistent levels of reporting from all areas*
- *Decreasing severity of report content with time*
- *Lack of repeat reports on same subject*
- *Management response – 100% feedback initiated within month*
- *Zero incidents.*

Section 9 - Contingency & Emergency Planning

Contingency & Emergency Planning

Purpose

To identify foreseeable emergencies by systematic review and analysis.
To establish procedures to deal with the co-ordination, command and control of major marine incidents and emergencies in the port. These should include:

- a. Personnel evacuation / rescue
- b. Pollution
- c. Fire / Explosion
- d. Salvage / Recovery of vessels
- e. Terrorism / Threat to security

Method

- Plans for response to such potential emergencies should be developed in consultation with emergency services and specialist contractors. Plans should be generic in format to maximise application to a wide range of circumstances and should avoid attempting to cover the detail of every possible contingency.
- The plans should be documented and periodically reviewed. Plans should be published in the form of controlled documents and distributed to:
 1. *Command and control and other key personnel*
 2. *Emergency services*
 3. *Environmental agencies, local authorities, regulators and government agencies who might be affected*
 4. *Abridged versions with selected information should be available to all personnel, and principal port stakeholders, including vessels calling regularly at the port.*
- Desktop and real time exercises of the Port Emergency plans should be carried out at designated intervals.

Plans

- Marine Emergency Plan
- Larne Port Emergency procedures
- Oil Spill Contingency Plan

Key Performance Indicators

- *Desk top and real time exercises, and debrief meetings*
- *Review of Plans*

Defined Targets

- *Exercises and review of plans carried out to schedule*
- *Consensus of acceptable procedures / performance / standards at debrief*

Section 10 Audit & Review

10.1 Audit of the Safety Management System

Purpose

To highlight deficiencies, non-conformances and non-compliances for rectification.

To identify inadequate, redundant or otherwise inappropriate procedures

Method

- The Harbour Master, supported by an appointed officer, who is not directly involved in the day-to-day management of the MSMS should conduct internal audits at prescribed intervals, preferably every year.
- Audits will include:
 1. Equipment and/or Procedures
 2. Associated plans and documentation
 3. Records generated
 4. Follow-up (if applicable)
- Non-conformances should be recorded on an Audit/Review form. The report should identify the appropriate corrective action in consultation with the auditee, and / or the auditee's Head of Department as appropriate.
- Where a change of procedure is indicated, the Management of Change process should be incorporated. Appropriate steps should be taken to monitor the effectiveness of the corrective action.
- External audits should be conducted at least every 3 years in the same way but by approved independent contractors holding recognised auditing qualifications and/or experience, preferably with a marine background.

Key Performance Indicators

- *Non-conformities and non-compliance relating to the Safety Management System*
- *Results from reviews or audits*

Defined Targets

- *Progressive reduction in non-compliances and non-conformities*

10.2 Hazard and Risk Control Review

Purpose

To review and verify the status, applicability and accuracy of the recorded hazard data, and the status, applicability and adequacy of recorded risk control measures in the HAZMAN SMS database.

Method

- The HAZMAN software contains a database of previously identified risks and the risk control measures currently in place. Identified hazards and risk control measures are periodically reviewed, such reviews being initiated by the HAZMAN software itself.
- Each identified hazard and risk control is allocated an 'owner' who is responsible for the review of that hazard or risk control. Normally, the Harbour Master or Safety Manager will undertake each review in consultation with appropriate staff members.
- Additional reviews will be manually initiated as appropriate in the event of:
 1. A new risk assessment, reflecting expected changes (e.g. the proposed introduction of new trades and/or marine operation)
 2. Any significant navigational incident or Near Miss.
 3. As a result of MAIB investigation reports.

Key Performance Indicators

- *HAZMAN Hazard and Risk Control Review module*

Defined Targets

- *All reviews completed to schedule*

10.3 Monthly Marine Safety Reports

Purpose

To provide the Board with a regular report on the safety performance of the port and the effectiveness of the Safety Management System.

Method

A monthly safety report should include statistical analysis of the following:

1. Incidents or Emergencies including :
 - a. Collision / Contact
 - b. Fire / explosion
 - c. Vessel grounding
 - d. Loss of vessel stability, hull integrity
 - e. Pollution / environmental incidents

2. Dangerous Occurrences and Near Misses including loss of manoeuvrability
3. Accidents and Lost Time Injuries amongst marine staff
4. Defects affecting marine safety
5. Safety Audit results
6. Key Performance Indicator (KPI) Results

The Monthly marine safety report should be compiled by the Harbour Master and sent to the Port's General Manager, who will also receive a monthly report on shore-based safety from the Health and Safety Manager

Key Performance Indicators

- *KPI and Audit Statistics*

Defined Targets

- *Improving indicators*

10.4 Review of the Safety Management System

Purpose

To confirm the continuing adequacy of the Safety Management System and, where possible, seek to improve it.

Method

Safety management systems should be formally reviewed every five years and operating procedures every three years. Current practice should be checked against the laid down procedures. A schedule should be published annually detailing the review sequence for the year and should timetable the following areas:

- Policy is periodically reviewed to ensure that it remains consistent and up-to-date with the requirements of
 1. The safe operation of the Port
 2. The Port Marine Safety Code
 3. Relevant legislation
 4. Identifying hazards and keeping all risks as low as reasonably practicable.
- Procedures and documents are periodically reviewed to ensure that they are consistent, up-to-date, reflect current practice and are adequate to sustain the policy
- Internal and external audit mechanisms are confirmed to function satisfactorily
- KPI's remain relevant and comprehensive
- KPI Targets are being met consistently
- Incidents are avoided. If they occur, the consequences are effectively mitigated.

- The organisation learns and applies the lessons from Incidents, Near miss and Dangerous Occurrence reports
- Relevant input from Stakeholders / Port User Groups
- The system is evolving and changing to meet new challenges.
- Personnel appropriately trained and motivated towards an effective safety culture

The result of the review should be in the form of an SMS Action Plan reflecting the findings of the review and describing the actions required within the next inter-review period. The Action Plan will establish any corrections and/or improvements identified by the review process.

Key Performances Indicators

- *Findings of reviews and audits*
- *Analysis of accidents, incidents and hazardous situations*
- *Effectiveness of procedures and instructions*
- *Recommendations following inspections by outside agencies*
- *Effectiveness of the Safety Management System*
- *Consideration of recommendations for updating and reviewing*
- *Trade considerations, new regulations, general overview*

Defined Targets

- *Approval by designated person, Board of Directors.*

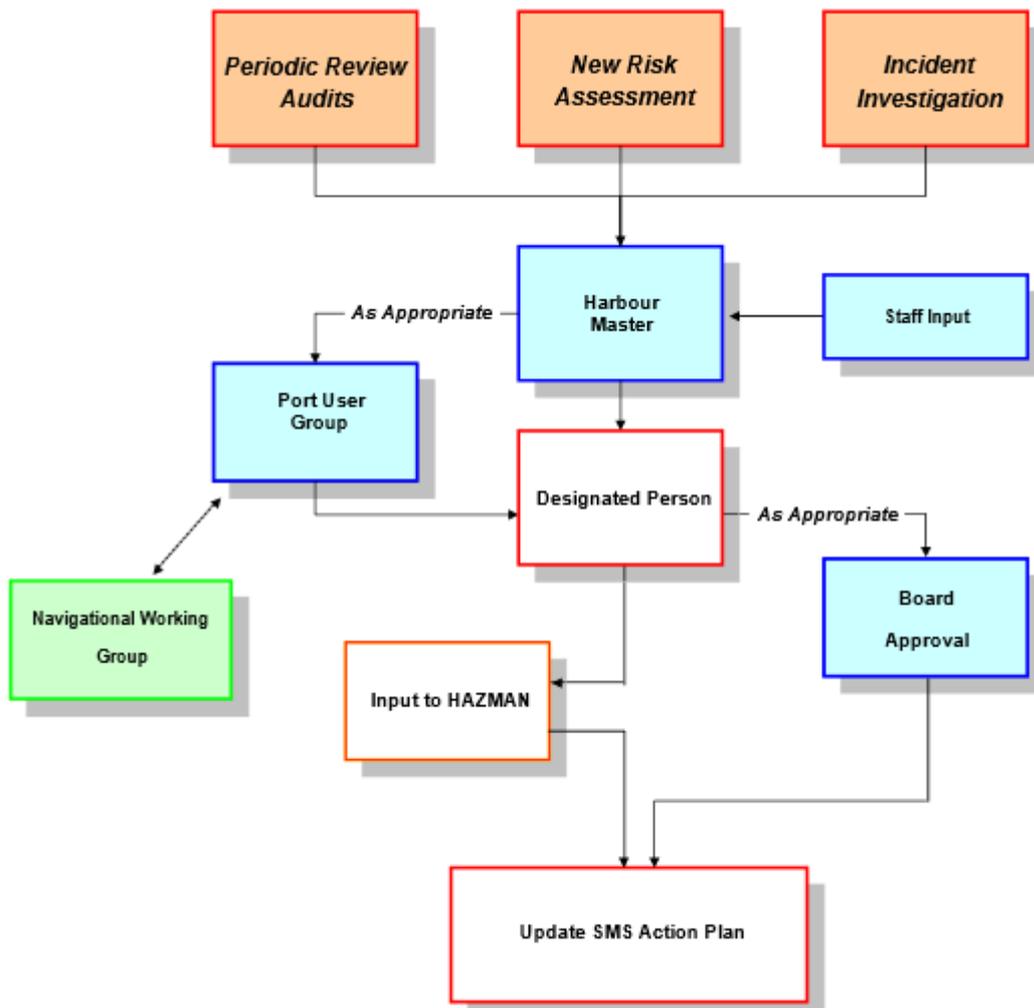
10.5 Changes to the Safety Management System

Purpose

To ensure that changes to the Safety Management System are carried out in a consistent and approved manner.

Method

The process used to modify and develop the Navigational Safety Management System and issue General Direction is as follows:



The identification and assessment of navigational hazards is central to the effective maintenance of the Navigational SMS. It may be necessary in some cases, e.g. following a significant incident or in the case of a new risk assessment, to involve appropriate port user groups. In such circumstances, the Harbour Master will establish a Navigational Working Group consisting of mariners and other persons whose knowledge and experience is relevant to the nature of the hazard or new trade/operation, or alternatively if slightly lower level, to discuss the matter as part of a Marine Stakeholders meeting.

Any recommendations arising from the deliberations of the Harbour Master and his staff, or a Navigational Working Group, will be passed to the Designated Person for approval. Following

such approval, the Harbour Master will, if relevant, record the outcome in the HAZMAN system and any new or revised operational guidance will be put in place. Planned implementation will be recorded in the SMS Action Plan.

Liaison will be maintained with Port User Groups to review relevant Navigational SMS issues and Larne Harbour's plans for change.

10.6 Review of relevant external information

The Harbour Master receives copies of each published MAIB Safety Digest and receives notifications of newly published reports and safety flyers from agencies such as PSS, BPA etc.

The Harbour Master will review such reports and circulars to identify any relevant issues, which have the potential to impact upon Larne Port Marine SMS. All such incident reports and circulars are disseminated if relevant to marine staff, the H&S Manager or contractors for information/action. Where appropriate, they will also be discussed at the next marine stakeholders meeting, with a view to taking any necessary action, including the promulgation of any lessons learned.

Appendix 1**Marine Safety Plan 2021 – 2022**

The current safety plan and performance matrix can be found on the following link
[PMSC Marine Safety Plan 2021 - 2023 - Port of Larne](#)

Appendix 2 Larne Port Training Matrix

		Seagoing Certification - min of OOW	Harbour Master Diploma or RM COC in lieu of Seagoing experience	V103-1 IALA VTS Operator Qualification	VTS On the Job Training	LPS Training	IALA V103-5 Refresher course every 5 years- date due	VTS 103-2 On the Job Training Instructor	IOSH Certification	Fire Warden Training	1st Aid Course	Larne Port Safety Induction	Counter Terrorism Qualifica every 3 years	Port Facility Security Officer Training	OPRC MCA 5P Command and control course	OPRC MCA 4P Course	OPRC MCA 3P Course	OPRC MCA 2P Course	Participate in annually OPRC exercise	Training in safe moving operations (if no seagoing certification held)
Marine Dept	Harbour Master	Required	Optional	Required	Optional	Required	Optional	Required	Optional	Required	Optional	Required	Optional	Required	Optional	Required	Optional	Required	Optional	Required
	HSE Manager	Required	Optional	Required	Optional	Required	Optional	Required	Optional	Required	Optional	Required	Optional	Required	Optional	Required	Optional	Required	Optional	Required
	Marine Officer	Required	Optional	Required	Optional	Required	Optional	Required	Optional	Required	Optional	Required	Optional	Required	Optional	Required	Optional	Required	Optional	Required
	Workshop staff																			
	McLoughlins LPS				Required											Optional	Optional			

Key:-

- Optional
- Required
- Date obtained
- Date due for renewal