CAIRNRYAN
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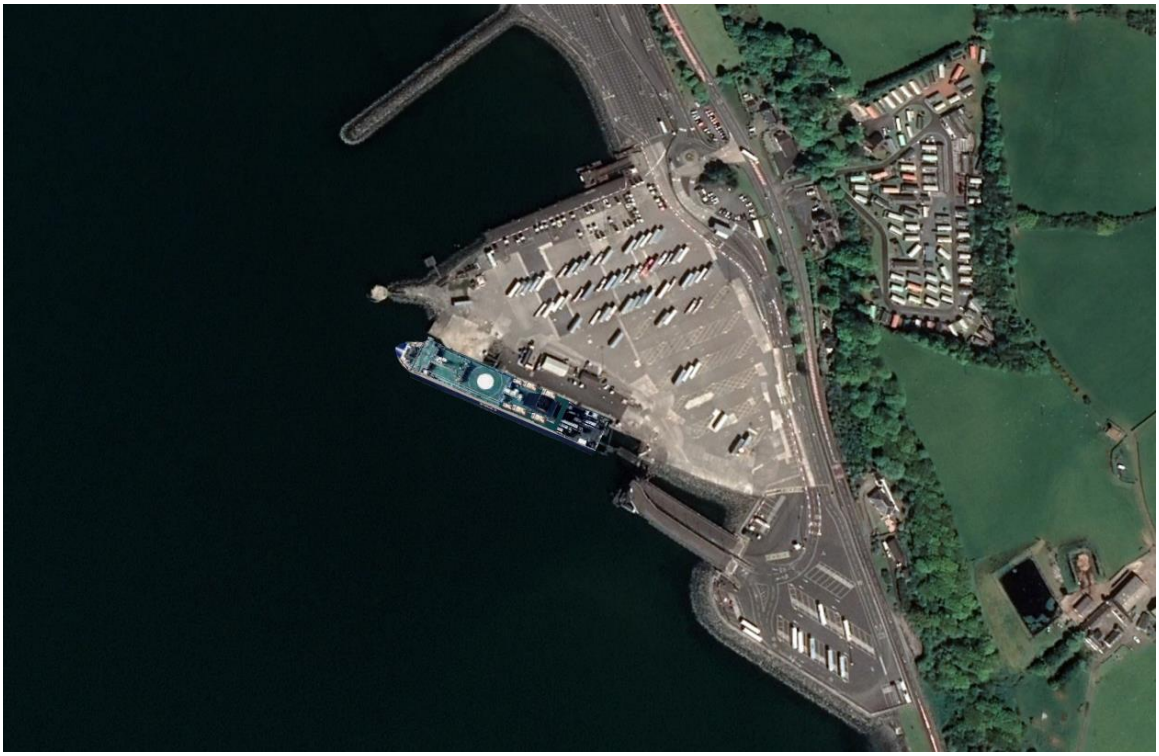

Port of Cairnryan Limited

MARINE SAFETY MANAGEMENT SYSTEM

ISSUE 5
May 22

Document Control

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This document comprises 10 Sections, each of which may be updated independently. To allow updating of the document in an efficient manner, each section has been allocated its own Issue number and Issue Date. The document Status Section contains an overall summary of the current version of this document.

Major revisions to the document are identified by updating the document Issue Number (e.g., 1, 2, 3, etc.).

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Document Status

Issue No.	Issue 5	Issue Date :	May 22

The table below identifies the current issue of each Section:

Section	Title	Issue No.	Issue Date
1	Introduction & Overview	Issue 5	May 22
2	Safety Policy	Issue 5	May 22
3	Organisation	Issue 5	May 22
4	Key Policy Areas	Issue 5	May 22
5	Personnel Resources	Issue 5	May 22
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7	Risk Assessment & Control	Issue 5	May 22
8	Safety Culture	Issue 5	May 22
9	Contingency & Emergency Planning	Issue 5	May 22
10	Audit & Review	Issue 5	May 22

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Issue/AGMt No. _____ has been inserted.

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Contents

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, as updated. This document is based on PMSC issued November 2016.

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. Port of Cairnryan Ltd must:

- Record and publish its marine policies and make available supporting documentation,
- Set standards and targets of performance that it aims to meet
- Regularly review and periodically audit actual performance,
- 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 the Port of Cairnryan Marine Safety Management System, which has been developed in line with the Port Marine Safety Code (2016) 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 documentation relates to the management of safety of marine operations within the Port of Cairnryan 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.

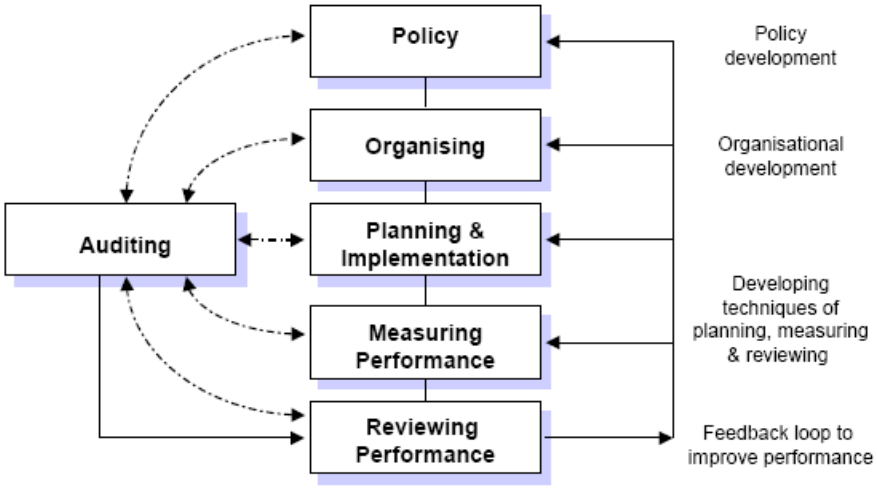


Figure 1 Overview of Safety Management System

1.3 Composition

The Port of Cairnryan 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 several 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.

All documents described in Section 1.4; 1.5; 1.6 and 1.7 are retained in Larne Port Control.

1.4 Controlled Documents

Cairnryan Navigational and Operational Guidelines Manual
Cairnryan Conservancy Manual
Port of Larne Marine Services Manual (as required)

Port of Cairnryan Emergency Shore Procedures – a *P&O Ferries Document*
Port of Cairnryan OPRC Plan – a *P&O Ferries Document*

1.5 Statutory Documents

Port of Cairnryan Harbour Empowerment Order (2007)
Harbours, Docks and Piers Clauses Act 1847
Harbours Act 1964
Dangerous Vessels Act 1985
Dangerous Substances in Harbour Areas Regulations 2016
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
Code of Practice for Small Work Boats & Pilot Boats
Merchant Shipping Statutory Instruments
MCA Marine Safety, Guidance, Information Notices (held in CD Rom (PoL)
International Regulations for the Prevention of Collisions at Sea

Admiralty Sailing Directions West Coast, Scotland, NP66
Admiralty Chart No 1403

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 identified hazards. These risk control measures are referenced to elements within the Port of Cairnryan 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.

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 absolutely 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 Marine 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 everyone 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

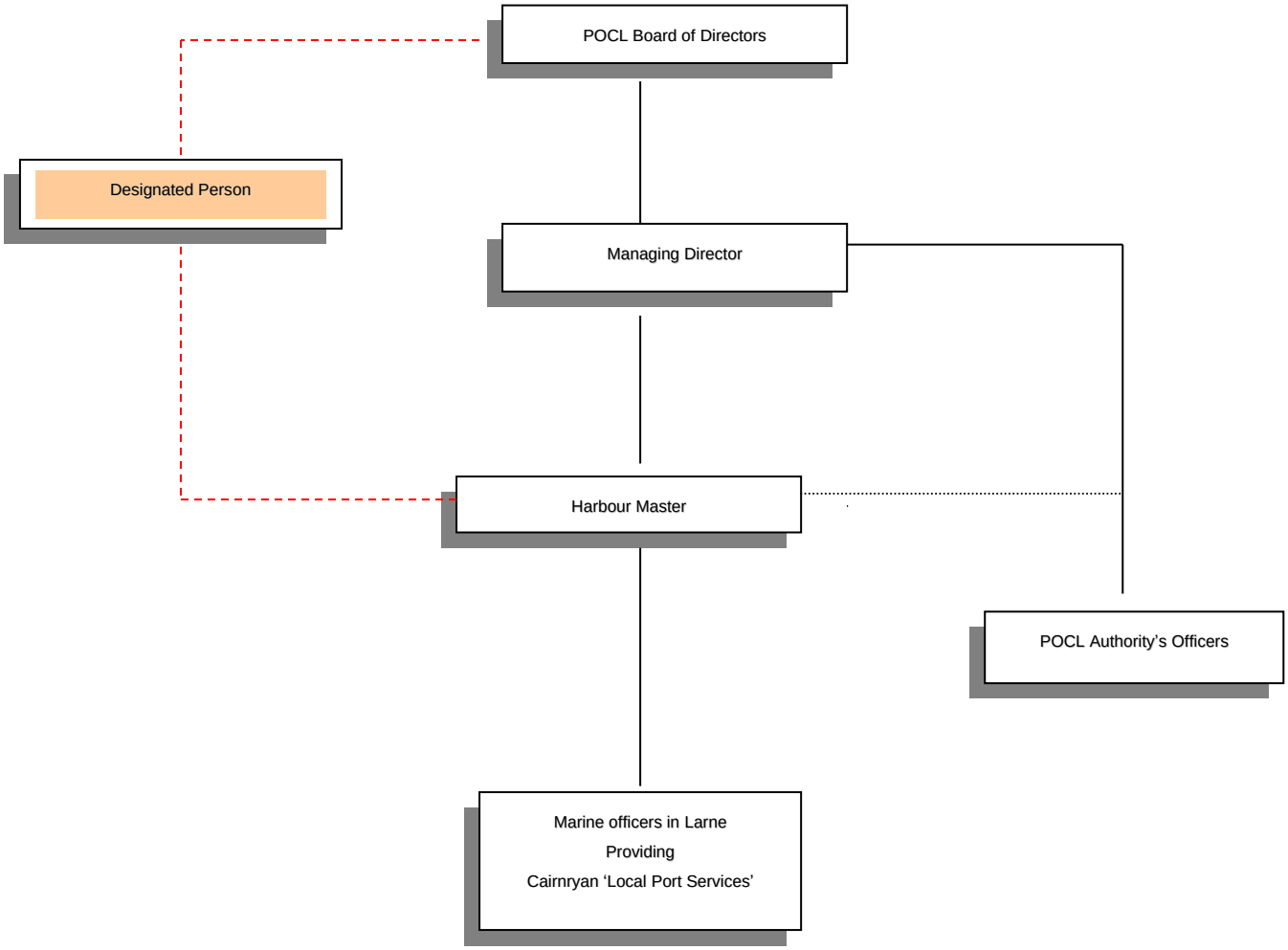
In order to discharge its duties in compliance with the standards laid down by the Port Marine Safety Code the port has produced a Marine Navigational Safety Policy, which can be found on the following link Cairnryan Marine Safety Policies - Port of Larne:

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

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

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 - (P.M.S.C. Duty Holder)

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 effectiveness of the Marine 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 plans are published and an assessment of performance in meeting their obligations at least once every 3 years.
- 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 ensure 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

The GM is accountable for the operational and financial control of the authority. He/she 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 Marine 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 Marine Safety Management System.
- Ensure the provision of adequate material and personnel resources by liaising with the Harbour Master and other port managers having a safety responsibility.
- Assess progress and results of annual and intermediate Hazard and Risk Control Reviews.
- Establish and review strategic Marine Safety Plan, in liaison with the Harbour Master and other port managers having a 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

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:-

Marine Safety Management System

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

- Ensure plans for improvement of the system are properly considered by Management.

- Ensure external Marine 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 through an appropriate vessel traffic system such as Local Port Service.

- 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

- Assess the requirement for sufficient personnel to operate the port systems safely and effectively

- Ensure staff awareness of their responsibilities. Ensure personnel are trained in accordance with safety and familiarisation procedures. Identifying additional staff training needs

- Delegate duties as appropriate

- Maintain effective working relationships

- Ensure that adequate resources and secondary support procedures are in place by liaising with the Port Engineer and Port Manager
- Formulate, Review and Update contingency plans and procedures
- Manage response in emergency situations including communications
- Report and maintain Records
- Ensure reports regarding unsafe acts, near misses, accidents and incidents are recorded. Verify that the necessary corrective actions have been implemented.
- Prepare Harbour Masters monthly report for Board.
- Ensure document control procedures are followed.
- Manage leisure and recreational facilities
- Liaison with recreational users on safety matters. Consultation and development of procedures to minimise conflict between recreational and commercial port users.
- Discharge conservancy duties
- Maintain an overview of the Conservancy functions
- Exercise statutory duties in relation to wrecks
- Manage port facilities and marine services
- Ensure the safe operation and maintenance of port vessels
- Ensure provision of adequate facilities for safe operation of port
- Through Cairnryan Local Port Service, based at Larne, ensure safe movement of all vessels in the port
- Day-to-day operation of Cairnryan Local Port Service, based at Larne. Organisation of watch keeping rotas, cover for periods of absence, etc.
- Develop and implement Cairnryan Traffic Management Service procedures
- Monitor Cairnryan Local Port Service 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 Cairnryan Local Port Services records are kept.
- Liaise with maintenance department.
- Review and audit compliance of tugs, workboats within the port to appropriate codes.

3.3.4 Designated Person

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 POCL Board who decides who should be appointed as the DP in order to provide the level of assurance that they believe is necessary to comply with the Code. At Port of Cairnryan the DP is ABP Mer. This will provide independent assurance about the port's marine Safety Management System. He or she will:

- Ensure the Marine 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 Marine 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 the Safety Manager and other managers having 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.

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- Ensure plans for improvement of the system are properly considered by management.
- Review Harbour Master's monthly reports
- Verify that any necessary corrective actions have been implemented.
- Assess whether staff are trained in accordance with required competencies.
- Oversee external Marine 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

3.3.5 Authority Officer: Safety Manager

- Assist Harbour Master on matters regarding port safety
- Advise Port 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 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 Linkspans. Advise on provision, design, etc.
- Process day to day information and keep records for the above.

3.3.8 Authority Officer: Marine Officer

- As outlined in the Cairnryan Port Services Manual

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 in relation to the management powers of harbour authorities are as follows:-

1. *Ports have 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 Managing Director and the Board of Port of Cairnryan Limited will support the actions of Marine Officers in Larne who use their best endeavours to carry out their Cairnryan Local Port Service duties in accordance with this policy.

Method

- Marine Officers will be recruited and trained to the required industry standards. The Board recognises IMO Resolution A.857 (20) which requires that the Port Authority should ensure that its Port Control Operators are "appropriately qualified, suitably trained and capable of performing the task required" and also IALA Recommendation V-103 on standards for Training and Certification of VTS Personnel which is associated with the aforementioned resolution.

- Develop and maintain procedures within the **"Cairnryan Port Services Manual**" to achieve the following objectives.

Objectives

- Operate a 24 hour 'Local Port Service'. This is a service to ensure that essential information becomes available in time for on-board decision making. An LPS does not participate in onboard decision making.

- Safely and efficiently co-ordinate commercial traffic movements within the port control area, including setting criteria for:

    1. Provide relevant information to vessels inside and outside the controlling area for the Safety of Navigation.

    2. 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 VHF radio traffic data.

Further information and guidance on Cairnryan Port Control is contained in the current LPS Manual.

Key Performance Indicators

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

Defined targets

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

4.2 Pilotage

4.2.1 Primary Responsibility

Primary responsibility for provision of pilotage service is imposed on a class of harbour authority described as Competent Harbour Authority. The statutory harbour authority of Port of Cairnryan Ltd can only become a CHA by virtue of an order made by the Secretary of State. The Secretary of State may only grant CHA status if he considers that it is in the interests of efficiency and safety of navigation. There is no current plan by the Port Authority to seek to achieve Competent Harbour Authority status.

4.2.2 Review

Port of Cairnryan Limited, as the Port Authority with powers to regulate navigation in its waters, will keep under consideration the need for pilotage services to be provided to secure the safety of ships navigating in or in the approaches to its harbour. This consideration formed part of the authority's formal risk assessment. There is a specific duty to have regard

in particular to the hazards involved in the carriage of dangerous goods or harmful substances by ships. The requirement will be kept under constant review to take account of changes in the use of the harbour.

The process of review will be used to establish whether pilotage should be compulsory for ships navigating in any part of the harbour or its approaches and, if so, for which ships and in which circumstances and what pilotage services need to be provided for those ships. This is to be determined on grounds of safety only. It will be covered by the formal risk assessment required by the Port Marine Safety Code, and the requirement kept under review in the harbour authority's Safety Management System.

4.2.3 Compulsory Pilotage

If the Port of Cairnryan Limited determines there should be compulsory pilotage it will be guided by the following:-

- Port of Cairnryan Limited will exercise control over the provision of the service, including the use of pilotage directions and the recruitment, examination, authorisation, employment status and training of pilots.

- The standards for exemption certificate will not be more onerous than those required for an authorised pilot; but they should be equivalent.

4.2.4 Requesting a Berthing Advisor

A master of a commercial vessel may ask for assistance of a Berthing Advisor even when not required to take one. There may be special circumstances, for example, when the master is unfamiliar with the port, or traffic or weather conditions are difficult. The Port Authority will monitor such requests carefully and refer to them when reviewing whether in any such circumstances pilotage should become compulsory.

A Berthing Advisor will be drawn from a pool of competent ferry masters operating at the Port of Cairnryan; who have the requisite skill set to provide extensive local knowledge (especially in the safety of navigation) to the Master.

Key Performance Indicators

- *Incidents (frequency and severity)*
- *Near miss and dangerous occurrence statistics (see Section 8)*
- *Compliance with 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 reasonably fit for use as a port, and 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.*

2. *Harbour authorities should provide users of the harbour with enough information about conditions in the harbour.*

3. *Harbour authorities have duties and powers as local lighthouse authorities; and specific powers in relation to wrecks.*

Purpose

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

Method

Develop and maintain procedures within the **"Port of Cairnryan 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 in accordance with the 'Hydrographic Code of Practice' as required and promulgate timely and accurate results to port users and Hydrographic Agencies
- In conjunction with the Northern Lighthouse Board, to provide and maintain adequate navigational aids, consistent with port user requirements to facilitate safe navigation within the port and its approaches.
- 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*

Defined Targets

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

4.4 Marine Services

Introduction

Marine Services means the support activities carried out by the port authority to maintain safety of navigation and the hydrographic regime and takes in the full range of services, including the use of tugs and workboats in a harbour, and the provision of moorings. 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 craft - including tugs, pilot launches, and other workboats 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 such 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 Port Marine Safety Code 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 including the ability to respond to emergencies, and that such tugs have adequately trained and qualified crew.

There are no current towage operations at Port of Cairnryan and no tug provider is based at that port.

POCL, as port authority, with powers to regulate ship towage operations in its waters, will keep under consideration the need for towage services to be provided to secure the safety of ships navigating in or in the approaches to the port. This consideration forms part of ongoing formal assessment.

If POCL determines there is a requirement for towage operations to commence as a consequence of business needs or as a operational control measure, its purpose and method will be guided as follows:-

Towage Guidelines to be used are contained in the Port of Larne ***"Marine Services Manual"***

Method

- To ensure that adequate tugs are available for all reasonable port user requirements, an assessment of the towage requirements will be 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 port users, considering the characteristics of the port and the vessels using it.

- When applicable, by developing, in consultation with tug operators, tug inspection and audit procedures including certification of personnel.

- By developing a method of assessing and authorising tug operators and tugs as "fit for purpose" within the port limits taking into consideration four main areas.

    - Tugs and Equipment
    - Crew competence and training
    - Safety Management System
    - Additional Tug Capabilities

4.4.2 Pilot Launches & Workboats

The port currently operates without requirement for Pilots and consequently there is no pilot boat. The need for pilotage is kept under regular review and is described in Section 4.2.2.

When a pilot boat is required it will be guided by the following:-

- The Port Marine Safety Code stipulates that Port 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 "Safety of Small Workboats and Pilot Boats - A Code of Practice".

- Similarly, the Port 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 Port of Larne ***"Marine Services Manual"****.*

Key Performance Indicators

- *Vessel delays awaiting tugs*
- *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".

Procedures for Mooring Operations are contained in the Port of Larne ***"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*

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Section 5 - Personnel Resources

Introduction
The Board recognises that employees and contractors have an important part to play, and the contribution of everyone 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:

- Co-ordinate contractor's activities with those of the port and other contractors as appropriate
- Ensure contractor's 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 programmes.
    3. Professional accreditation where applicable.
    4. All Contractors 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 (Section 8.2)

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 minimised*

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 Cairnryan 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 minimising 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.

- 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*

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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 unauthorised 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

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 Marine 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. CPS, Conservancy, 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
    5. Where the sequence of steps comprises activity is critical, 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 Marine Safety Management System.

Method
Channels to report non-compliance must be provided within:

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

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 organisational 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

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.

Shore related accidents the HSE will take the lead with the Police Scotland as prosecuting agency.

In an emergency the Harbour master or Vessel's master will take the lead and coordinate any initial actions, until such time the Fire services or the Police service take command.

Method

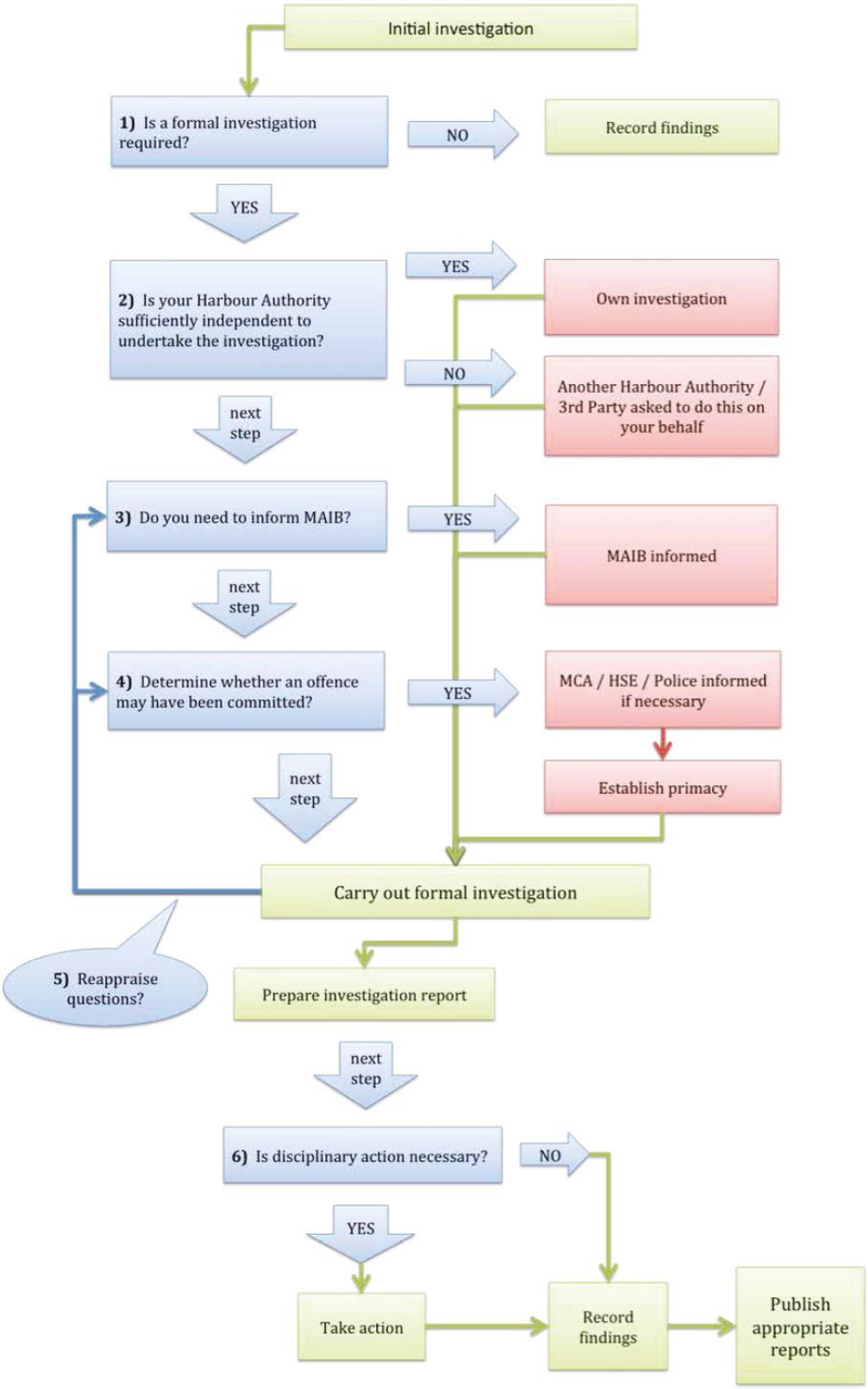
- Develop clear emergency instructions and plans
- Regularly carry out drills in conjunction with local emergency services

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

Port of Cairnryan Limited is empowered to prosecute offenders for breaches of the Port of Cairnryan Empowerment Order (Scotland) 2007 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*
- *Prosecutions*

Defined Targets

- *Decreasing / negligible breaches*

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 June 2009. 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 (Port of Cairnryan). 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 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.	Frequent.	One or more times in 5 years.
2.	Reasonably Probable	One or more times in 20 years.
3.	Remote Possible.	One or more times in 50 years.
4.	Unlikely.	One or more times in 100 years.
5.	Remote.	One or more times in 500 years.

Hazard consequence is assessed according to the following scale:-

Cat.	People	Property	Environment	Business
C1	**Negligible** None or very minor injury (e.g. bruising)	**Negligible** Costs <£5K	**Negligible** No effect of note. Tier1 may be declared but criteria not necessarily met. Costs <£5K	**Negligible** Costs <£5K
C2	**Minor** (single minor injury)	**Minor** Minor damage Costs £5K–£50K	**Minor** Tier 1 – Tier 2 oil spill criteria reached. Small operational oil spill with no or little effect on environmental amenity Costs £5K–£50K	**Minor** Bad local publicity and/or short-term loss of revenue Costs £5K–£50K
C3	**Moderate** Multiple minor or single major injury	**Moderate** Moderate damage Costs £50K - £200K	**Moderate** Tier 2 oil spill criteria reached but capable of being limited to immediate area within harbour or port zone. Costs £50K - £200K	**Moderate** Bad widespread publicity Temporary suspension of operations or prolonged restrictions at terminal. Costs £50K - £200K
C4	**Serious** Multiple major injuries or single fatality	**Major** Major damage Costs £200K - £2M	**Major** Tier 3 oil spill criteria reached with pollution outside harbour or port zone expected requiring national support. Chemical spillage or small gas release Costs £200K - £2M	**Major** National publicity, Temporary closure or prolonged restrictions on operations of port Costs £200K - £2M
C5	**Catastrophic** Multiple fatalities	**Catastrophic** Catastrophic damage Costs >£2M	**Catastrophic** Tier 3 oil spill criteria reached. International support required. Widespread shoreline contamination. Serious chemical or gas release. Significant threat to environmental amenity. Costs >£2M	**Catastrophic** International media publicity. Port closes. Operations and revenue seriously disrupted for more than 2 days. Ensuing loss of trade. Costs >£2M

Consequences						
	Cat 4	5	6	7	8	10
	Cat 3	4	5	6	7	9
	Cat 2	3	3	4	6	8
	Cat 1	1	2	2	3	6
	Cat 0	0	0	0	0	0
	Frequency	100-500 years	50-100 years	20-50 years	5-20 years	<5years

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 – Safe 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 Permit to Work system include:

- Work involving immobilisation of engines / steering
- Diving operations in the port.
- Hot Work outside the engine room

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 no 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 provides 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 Port of Cairnryan 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. Experiences 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 they 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

It is usual to think of emergencies as unexpected: the challenge to those with professional capabilities for safety is not to be taken by surprise.

Purpose

To identify foreseeable emergencies by systematic review and analysis.

To establish procedures to deal with the co-ordination, command and control of major incidents and emergencies in the port. These should include:

- Personnel evacuation / rescue – (Marine Emergency Procedures)
- Pollution – (OPRC)
- Fire / Explosion – (Emergency Procedures)
- Salvage / Recovery of vessels
- Terrorism / Threat to security – (Security Procedures)

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.

- A formal procedure exists for notification of important relevant maritime documents. The Port Authority will receive all relevant marine safety legislation automatically in electronic and hard copy format e.g. MAIB Reports, UKHO and Northern Lighthouse Board and acted upon accordingly.

- 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
- 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*

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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 auditor, and / or the auditor'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 every 3 years in the same way but by an approved independent contractor 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

Key Performance Indicators

- *HAZMAN Hazard and Risk Control Review module*

Defined Targets

- *All reviews completed to schedule*

10.3 Monthly Safety Reports

Purpose

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

Method

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

- Incidents or Emergencies including :
    1. Collision / Contact
    2. Fire / explosion
    3. Vessel grounding
    4. Loss of vessel stability, hull integrity
    5. Pollution / environmental incidents
- Dangerous Occurrences and Near Misses including loss of manoeuvrability
- Accidents and Lost Time Injuries
- Defects affecting marine safety
- Safety Audit results
- Key Performance Indicator (KPI) Results

The monthly marine safety report should be compiled by the Harbour Master using individual monthly reports submitted to him by the other Heads of Departments.

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 Marine Safety Management System and, where possible, seek to improve it.

Method

Safety management systems and operating procedures should be formally reviewed every five 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
- Documents are periodically reviewed to ensure that they are consistent, up-to-date, reflect current practice and are adequate to sustain the policy and procedures
- Confirming internal and external audit mechanisms function satisfactorily
- Confirming KPI's remain relevant and comprehensive
- Confirming KPI targets are being met consistently
- If incidents occur, that 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
- That the system is evolving and changing to meet new challenges.
- To confirm personnel are 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.*

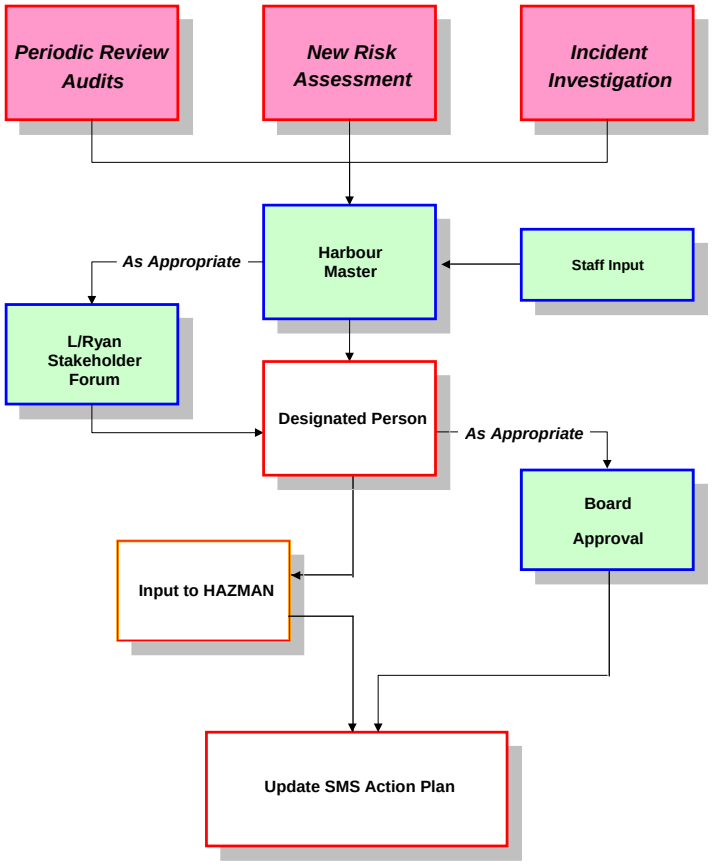
10.5 Changes to the Safety Management System

Purpose

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

Method

The process used to modify and develop the Marine Safety Management System is as follows: The identification and assessment of navigational hazards is central to the effective maintenance of the Marine 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.



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 Safety Manager will 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 Marine SMS issues and Port of Cairnryan'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
The Harbour master will review each issue to identify any reported incidents, which impact or have the potential to impact upon Cairnryan Port Marine SMS. All such incident summaries are then circulated to all marine staff for information/action, and where appropriate, and discussed at the marine stakeholders meeting with a view to taking any necessary action, including the promulgation of any lessons learned.

Records are kept under the Larne Port Marine Safety Management System filing system.