CLYDE DOCKYARD PORT MARINE SAFETY & ENVIRONMENTAL MANAGEMENT SYSTEM (CDP MSEMS)

Revision 6 – March 2024

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PORT DUTY HOLDER COMMITMENT STATEMENT

As the Naval Base Commander of His Majesty's Naval Base Clyde (NBC(C)), under the terms of the Defence Maritime Regulations for Health, Safety and Environmental Protection (DSA02-DMR 200 and 700 series) I am the Duty Holder for marine safety and environmental protection for the Dockyard Port of Clyde. I am committed to the regulations of the DSA-02 Maritime Regulations and principles of the Port Marine Safety Code (PMSC), and compliance thereof, for the safe management of marine operations and environmental compliance throughout the Dockyard Port. I delegate functional authority for ensuring port marine safety and environmental compliance for the Dockyard Port of Clyde to the King's Harbour Master (KHM) Clyde, who is accountable directly to me for all marine safety and environmental matters.

KHM Clyde deals with thousands of movements each year including warships, submarines, commercial vessels, large oil tankers, fishing vessels and leisure craft of all sizes and descriptions; vessels using the CDP routinely operate in close proximity with other units and navigational hazards.

KHM Clyde discharges their duties through the CDP Marine Safety and Environmental Management System (MSEMS). This MSEMS will comply as closely as possible with the Port Marine Safety Code; in the event that this cannot be achieved, an applicable disapplication, exemption or derogation will be required from the Defence Maritime Regulator (DMR). KHM Clyde will report progress in achieving compliance with the PMSC and any problems doing so directly to me.

In particular, I expect that:

- Where applicable, MOD policy and legislative requirements are fully implemented.
- KHM Clyde undertakes and regulates marine operations in a way that safeguards the port, its users, the public and the environment.
- All risks are identified, assessed, recorded, and managed to ALARP. Where they cannot be managed, I expect KHM Clyde to elevate risk to an appropriate management level for ownership and control.
- All incidents are reported and investigated in order to identify root causes and ensure that lessons learned are promulgated and implemented to improve controls and prevent reoccurrence.
- An effective safety culture is maintained and continuously improved.
- Emergency and contingency procedures are implemented and continuously improved.
- MSEMS will be reviewed annually.

S L Malkin ADC CEng MRAeS
Commodore
NBC Clyde

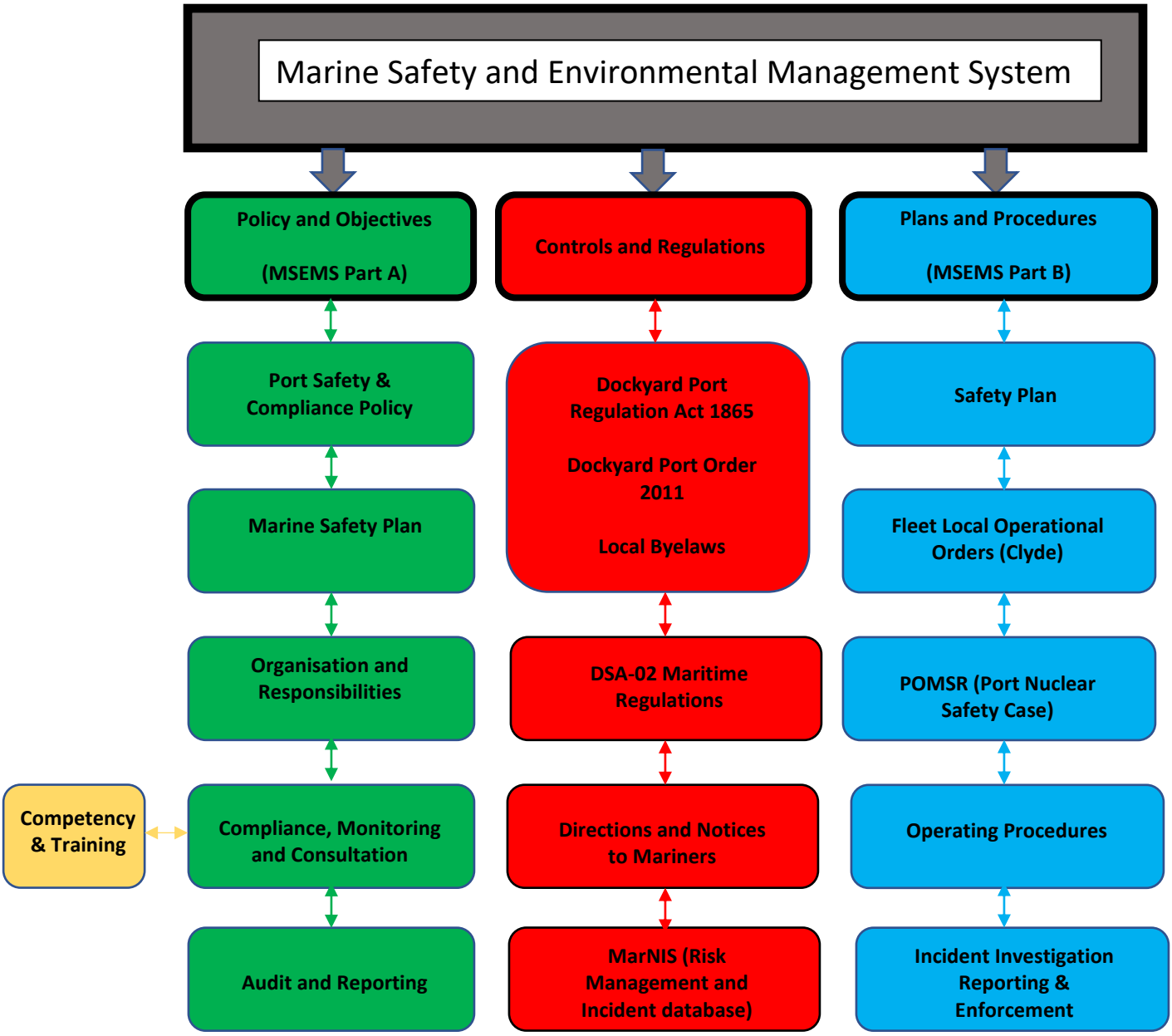

Figure 1 – The Structure and Components of the CDP Marine Safety and Environmental Management System

ISSUE & AMENDMENT RECORD

Changes to policy procedures or processes in relation to this MSEMS shall be approved by KHM Clyde at a biannual management review meeting and incorporated into the system electronically. Any significant alterations or amendments implemented into the latest version of the MSEMS from the previous issue shall be recorded below:

SECTION	DETAILS
Part A	• Updated KHM roles and responsibilities. • Updated Risk Assessment review methodology. • Added detail on new Safety Event Monthly Review meeting. • Updated Internal Audit methodology. • Updated KHM Port Status Report details. • Updated internal management meeting information.
Part B	• Added information on Command & Control equipment. • Added details of CDP safety inspections. • Added details of KHM Renown Building safety inspections. • Clarified safety investigation process and reporting requirements.
Annexes	• Added new Annexes on Clyde Outstations Details, CDP Marine Environmental Guidelines and Document References. • Revised Emergency Operating Procedures. • Induction Training Annex amended.

MSEMS REVIEW & AUDITS RECORD SUMMARY

YEAR	DATE	DESCRIPTION	APPROVAL
2017	14 Nov 17	Initial Issue	KHM Clyde
2018	01 Feb 18	Pre PSMC-Compliance Audit	KHM Clyde
2019	10 Jan 20	Annual Review	KHM Clyde
2021	31 Jan 21	Annual Review	KHM Clyde
2022	31 Dec 22	Annual Review	KHM Clyde
2024	31 Jan 24	Biannual Review	KHM Clyde

1.0 SAFETY AND MANAGEMENT PRINCIPLES

The Safety and Environmental Policies of KHM Clyde define the organisation and arrangements that are planned to monitor, promote, and proactively manage the conduct of navigation, environmental compliance and associated marine activities consistent with maintaining the risk presented by this activity as low as reasonably practicable (ALARP).

The Marine Safety and Environmental Management System (MSEMS) is structured into three parts. This manual represents Parts A and B. The processes of harbour regulatory management and control are contained separately as individual documents as show in Figure 1. The links between policy, organisational structure, and administration of the MSEMS in show below in Figure 2.

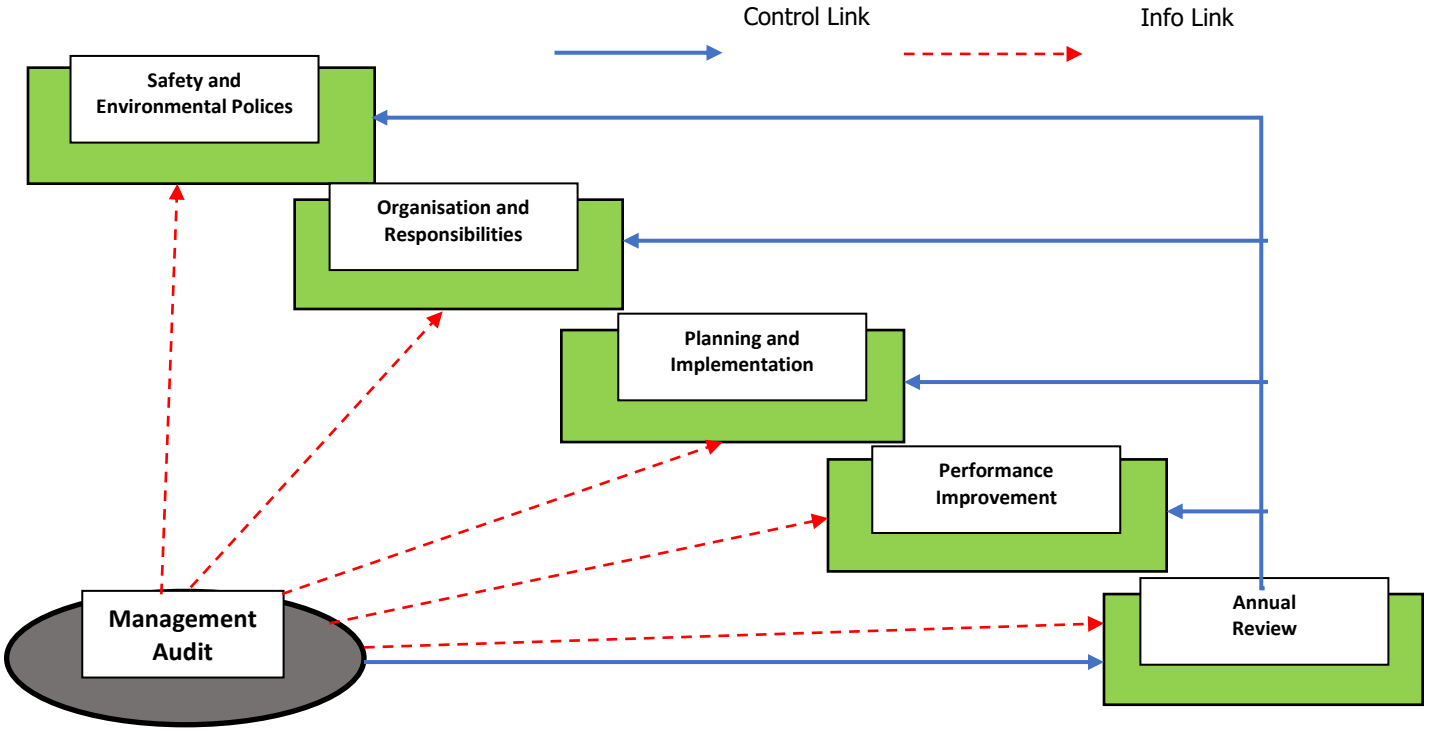

Figure 2 – Marine Safety and Environmental Management Principles

1.1 Introduction

The Clyde Dockyard Port of Gareloch and Loch Long exists to serve the defence interests of the UK. Safe operation of the Dockyard Port is essential to support the operational programme of the Royal Navy but also for the safety of the commercial and recreational users of the Dockyard Port waters.

Image 1 – Aerial view of the CDP

For ports, other than Dockyard Ports, the Department for Transport (DfT) Port Marine Safety Code (PMSC) recommends harbour authorities maintain a dedicated Navigational Safety Management System (SMS) for marine operations within the port. Although the PMSC is not binding on the Ministry of Defence (MOD), the MOD recognises it as the authoritative articulation of best practice in port safety and seeks to reflect the PMSC whilst reflecting the specific risks that exist within a MOD Port and Harbour. However, the legislative background under which Dockyard ports operate is different from that on which the PMSC is based and the powers of the KHM Clyde are not directly analogous to those vested in a Statutory Harbour Authority (SHA). For this reason, as observed by the DfT, the PMSC is not wholly appropriate to a Dockyard Port such as Clyde.

With this in mind, the Defence Maritime Regulator has developed Regulations for Health, Safety and Environmental Protection (regulation 211, regulation 407, the 700 Series for MOD Ports and Harbours, regulation 801 and regulation 903) using the PMSC as a basis and this is also reflected in the MoU between the MOD and MCA. These regulations detail the policies to be adopted by the MOD Dockyard Ports to achieve standards at least equivalent to those provided for in the PMSC as far as is reasonable and practicable. At all times, Dockyard Port safety policies and plans are to be based upon identification of the hazards, assessment of the risks and implementation of effective control measures to minimise or remove those risks, thus ensuring the safety of

the Dockyard Port and its users. This allows for safe operation of the Dockyard Port and supports PMSC compliance.

This MSEMS is designed to satisfy the requirements of DSA-02 Maritime Regulations and thus the requirements of the PMSC as far as is reasonable and practical and implement, where possible, the ten measures recommended by the PSMC of which 4,5, and 6 below are considered fundamental:

1. Duty Holder: Formally identify and designate the Duty Holder, whose members are individually and collectively accountable for compliance with the Code, and their performance in ensuring safe marine operations in the harbour and its approaches.

2. Designated Person: A Designated Person must be appointed to provide independent assurance about the operation of the marine safety management system. The Designated Person must have direct access to the Duty Holder.

3. Legislation: The Duty Holder must review and be aware of their existing powers based on local and national legislation, seeking additional powers if required in order to promote safe navigation.

4. Duties and Powers: Comply with the duties and powers under existing legislation, as appropriate.

5. Risk Assessment: Ensure that marine risks are formally assessed and are eliminated or reduced to the lowest possible level, as far as is reasonably practicable, in accordance with good practice.

6. Marine Safety & Environmental Management System: Operate an effective MSEMS, which has been developed after consultation, is based on formal risk assessment, and refers to an appropriate approach to incident investigation.

7. Review and Audit: Monitor, review and audit the risk assessment and MSEMS on a regular basis – the independent Designated Person has a key role in providing assurance for the Duty Holder.

8. Competence: Use competent people (who are trained, qualified and experienced) in positions of responsibility for managing marine and navigation safety.

9. Plan: Publish a safety plan showing how the standards in the Code will be met and produce a report assessing performance against that plan at least every 3 years.

10. Aids to Navigation: Comply with directions from the Northern Lighthouse Board (NLB) and supply information & returns as required.

The complexity and diversity of activity within the CDP means that achieving the desired level of safety and environmental compliance for the port requires an integrated and cooperative approach. It is intended that this document will provide a mechanism through which the management efforts of all port stakeholders can be coordinated and aligned. The MSEMS and complementary Marine Policies define the organisation and arrangements that the King's Harbour Master Clyde (KHM Clyde) has established to monitor, promote, and proactively manage the conduct of navigation and other marine activities so that safety is assured.

1.2 Marine Safety and Environmental Management System Scope

The MSEMS, as administered and managed by the KHM Clyde, applies to marine operations and activities within the CDP:

- Vessel operations in the port.
- Marine operations undertaken by any support or service organisation.
- Marine leisure activities.

1.3 Background and Legislative Context

The UK Government (DfT Maritime and Shipping) published the latest version of the PMSC in November 2016. The aim of the code is to establish an agreed national standard for port marine safety and a measure by which harbour authorities can be held accountable for their legal powers and duties to run their harbours safely. The code was developed to address perceived gaps in the safety management of ports although it does not in itself introduce 'new' legislation, nor is it mandatory; DSA-02 Maritime Regulations, issued in 2019 (revised 2023) uses the PMSC as its basis.

The key to the effective discharge of functions described in DSA-02 Maritime Regulations and the PMSC is the development of a Marine Safety and Environmental Management System for marine operations. This management plan should:

- Ensure there is a proper control of vessel movements by regulating the safe arrival, departure, and movement with the port for all vessels.
- protect the public from dangers arising from marine activities within the harbour.
- allow functions to be conducted with special regard to the possible environmental impact.
- confirm the roles and responsibilities of key personnel at the organisation.
- outline present procedures for marine safety within the port or facility (including port approaches).
- measure performance against targets using a competent database for recording incidents.
- refer to emergency plans that would need to be exercised; and,
- be audited on an annual basis.

The CDP is established under the Clyde Dockyard Port of Gareloch and Loch Long Order 2011 to provide for the proper protection of His Majesty's vessels, dockyards, or property, or for the requirements of His Majesty's Naval Service. The King's Harbour Master is appointed by the Secretary of State for Defence to superintend the execution of the Dockyard Port Regulation Act 1865and otherwise to protect the port; they are given general and specific powers under said statutes. The geographic boundaries of the CDP are established within the Dockyard Port Order, and powers are defined to enable KHM Clyde to exercise control of the Dockyard Port including the regulation of activities by all vessels within port limits to provide for the safety and operational effectiveness of the Royal Navy. The statutory powers include the provision to close the Dockyard Port to other port users for operational or safety reasons; furthermore, KHM

Clyde uses Crown Common Law powers to otherwise manage, maintain and improve the CDP.

2.0 POLICY

2.1 Purpose and Use of This Policy

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

This Policy sets out the intentions of the KHM Clyde (in their role as Harbour Authority for CDP) and its commitment to navigational safety and environmental management. It also describes the organisational responsibilities and arrangements established to ensure that the Policy is implemented. The Policy contributes to the operational objectives and states commitment of KHM to fulfil its responsibilities. The fundamental objective of the MSEMS is to demonstrate the consistent application of Policy.

2.2 General Management Policy

KHM will support the activities in the CDP through the safe and efficient regulation of shipping within the port limits. The policy of KHM is to collaborate with key stakeholders to:

- Manage the port to be safe, secure, and effective.
- The KHM Battle Rhythm shows the battle rhythm of governance and operational meetings that support the management policy;
- Maintain essential marine safety services to the highest industry standards and,
- Train Port Operations Staff to the appropriate professional standards.

2.3 DSA02-DMR-DMR Regulations for Health, Safety and Environmental Protection

KHM is committed to conformance with DSA-02 Maritime Regulations. KHM will seek to achieve this through compliance with the following regulations:

- Regulation 211 – Port Duty Holder – The CDP will have a nominated Port Duty Holder, who shall operate their ports in line with the PMSC and in line with Defence Rules for Warships in Harbour;

- Regulation 407 – Accident Investigation – Accidents and Incidents shall be investigated so that hazards and impacts are highlighted in a timely manner to facilitate learning from the experience.

- Regulation 701 – Port Marine Safety Code - The nominated Accountable Person for each MOD Port or Marine facility shall develop management arrangements that follow the principles of the UK Department for Transport/Marine and Coastguard Agency PMSC, which the MOD formally recognises as the articulation of best port management practice.

- Regulation 703 – Ports Safety and Environmental Compliance – The nominated Accountable Person shall ensure that suitable and sufficient Compliance

Statements and/or Safety and Environmental Protection Arguments are provided for all equipment and facilities with their Area of Responsibility.

- Regulation 704 – Explosives in MOD Ports and Harbours – The Accountable Person shall ensure compliance with the Naval Authority Rules for the control of the explosives risk from MOD Shipping at a Berth.

- Regulation 801 – Defence Diving Code of Practice - The Accountable Person shall ensure that the Defence Diving Code of Practice (JSP 286 - Defence Diving Manual) issued by the Superintendent of Defence Diving (SoDD) is complied with.

- Regulation 903 – Captain Port Operations – Captain Port Operations shall provide assurance to DMR of the safe and environmentally sustainable operation of MOD Ports and Marine Facilities, following the principles of the PMSC and in accordance with their DMR charter.

2.4 Policy Development and Communication

The Navigational Safety Policy has been developed by KHM in consultation with Port Stakeholders. Furthermore, KHM is committed to working closely with port stakeholders to aid the development of the MSEMS, which will enhance compliance with DSA-02 Maritime Regulations and the PMSC. The Policy has been communicated to all the relevant Port Stakeholders.

2.5 Commitment Statement

One key purpose of this document is to show a link between:

- This Commitment Statement.
- The policies set by KHM.
- The management arrangements, controls and provisions that discharge those policies.

2.6 Policy Review

In consultation with the key stakeholders, KHM will undertake a formal review of all Marine Policy documentation on a 3-yearly basis or more frequently as circumstances dictate.

2.7 Further Guidance

The MSEMS is intended to represent a comprehensive statement of policy regarding navigational safety and environmental management. There will also be a continuing process of briefing and updating information about navigational safety. There are however likely to be occasions that require additional supplementary guidance to provide a more detailed framework for specific operations or areas within the CDP. Information will be prepared subsequently, where and when appropriate, for example General and Special Directions or Local Notices to Mariners reflecting the general principles contained in this MSEMS.

3.0 MANAGEMENT OBJECTIVES

As part of its duties and responsibilities, KHM annually reviews its Management Objectives. To support those Strategic Objectives, KHM Clyde also sets individual Departmental Objectives, which include the ongoing maintenance and development of the MSEMS through the Deputy King's Harbour Master (DKHM). These objectives are articulated in the NBC Clyde's annual business plan. Furthermore, KHM Clyde will publish a Marine Safety Plan on a 3-yearly basis.

In general, the objectives contained in these documents seek to:

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

4.0 ORGANISATION AND RESPONSIBILITIES

4.1 Secretary of State for Defence

As the national regulator for Defence, the Secretary of State for Defence, through the Ministry of Defence, appoints the KHM.

4.2 1st Sea Lord (Senior Duty Holder)

They must have arrangements in place for ensuring activities conducted in Navy Command create and promote a positive safety culture for the protection of all personnel. 1SL is to assure themselves that risk is owned and managed to ensure that it is broadly acceptable or tolerable and ALARP. They are to ensure that risk management and compliance in Navy Command adheres to MOD policy and legislation.

4.3 Director Submarines (Operational Duty Holder/Senior Accountable Person)

Director Submarines is the 2* Accountable Person for the Submarines' Directorate. Dir SM is the Operational Duty Holder and Senior Accountable Person (SAP) for Marine Safety and Environmental Compliance in the CDP. They are responsible for ensuring the development, promulgation and maintenance of effective policies and guidance for Dockyard Port Marine Safety in the CDP and in doing so should maintain a close working relationship with the PDH. They are further responsible for ensuring that adequate resources are allocated to the CDP to allow them to fulfil the policy requirements.

4.4 Naval Base Commander (Port Duty Holder/Accountable Person)

The Naval Base Commanders are the Port Duty Holders and Accountable Persons for Marine Safety within their respective Dockyard Ports. Specifically, they are to promulgate a Port policy and ensure the development of plans and procedures for Marine Safety based on a formal assessment of the hazards and risks, and the development of a formal safety management system. In achieving this, they should maintain a close working relationship and thorough understanding of the requirements of Platform and Operational Duty Holders. Safety risks are to be identified and managed, including escalation through the Duty Holder chain where it is not possible to mitigate a risk to ALARP locally. Further, they are responsible for ensuring that adequate resources are allocated from their budgets to meet the policy and safety management system requirements.

4.5 Port Operations (Compliance and Assurance)

Port Operations (Compliance and Assurance) (PO(CA)), as a Duly Authorised Organisation, provide assurance to the Senior Accountable Person (SAP) and Defence Maritime Regulator (DMR) of the safe operation of MOD Dockyard Ports and Marine Facilities in accordance with their DMR Charter.

4.6 Designated Person

Captain Port Operations is the Designated Person (DP) and will provide independent assurance of the operation of a Port, Harbour or Marine Facility's Marine Safety and Environmental Management System (MSEMS), directly to the Port Duty Holder (PDH). However, within the MoD, the DP may also provide assurance to

other levels within the accountability chain and to DMR. Captain Port Operations has been appointed as the Designated Person for Navy Command TLB Ports, Harbours, and Marine Facilities by Director Force Generation (Dir FGen). Captain Port Operations provides independent assurance to the CDP under a CSA with DirSM.

4.7 The King's Harbour Master Clyde

The King's Harbour Master has significant responsibilities which are assigned by the Delivery Level Duty Holder. The KHM Clyde is responsible for the implementation of the Ports' policies, plans and procedures based on the requirements of their Dockyard Port's Marine Safety and Environmental Management Plan. As an Output Director KHM should ensure that they maintain a thorough understanding of, and works closely with, other Output and Support Directors in the Clyde for other areas which may impact on marine safety.

In respect of navigational safety, the functions of KHM, pursuant to the Dockyard Ports Regulation Act 1865 include:

- The protection of the Dockyard Port of Clyde in accordance with the Dockyard Port Regulation Act 1865.
- The management marine operations and implementation of conservancy measures in accordance with HMNB Clyde policies, as approved by the PDH.
- To direct the operations of the Dockyard Port's Admiralty Pilotage and towage service and maintain appropriate standards.
- To manage and deconflict, where required, activity within the port area in keeping with the Port Operational Management Safety Report, including controlling the risks to and from explosives handling on the waterfront iaw departmental regulations, drawing specialist advice and support from the Explosives Safety Advisor when required.
- Manage, maintain, and direct an appropriate VTS and ensure the quality of service remains within the appropriate IALA/MCA standards.
- The investigation of navigational incidents, as required by MOD Policy.
- The recruitment and training of Port Operations Personnel.
- Ensuring the Health and Safety of Port Operations Personnel.
- Co-ordinate and control all salvage and marine incidents within the Dockyard Port of Clyde liaising as required.
- The timely promulgation of navigational and safety information to Port Operations Personnel and to all Port Users.
- To oversee local management of the Marine Services Contracts and deliver supervision of 'affected service' activity as agreed with DMS.
- Any other functions conferred on the KHM Clyde under the Dockyard Ports Regulation Act 1865 or any other Act.

4.8 The Deputy King's Harbour Master Clyde

The Deputy King's Harbour Master Clyde (DKHM Clyde) is responsible to the King's Harbour Master Clyde for the daily management of the CDP and to act as KHM Clyde's deputy in their absence, being able to assume their duties and responsibilities. DKHM's first principal role is Port Safety including supervision of the Port Marine Safety and Environmental Management System and be the subject matter expert on the

Nuclear Site Authorised Conditions for Port Nuclear Operations and author of the Port Nuclear Site Safety Case. DKHM Clyde will consult with a wide range of stakeholders, agencies, and groups to satisfy the requirements of both safety management systems. The DKHM Clyde's second principal role is overall management and implementation of conservancy within the Dockyard Port ensuring all navigational aids and the Vessel Traffic System and supporting equipment is fully operational.

4.9 The Port Operations Manager

The Port Operations Manager (POM) is responsible to KHM Clyde for the planning and execution of all Port Operations, including movements and harbour operations, ensuring that safety, environmental and commercial guidelines are incorporated in the delivery of the service. The POM will oversee the delivery of Harbour Control and its associated activities, policy, and personnel; in addition, the POM will act as the line manager for the Admiralty Pilots and Harbour Planning Manager. The POM will be the lead for all seamanship and local navigation advice as it applies to the port, ensuring that base-ported and visiting port units are briefed as directed and that local navigational acquaints are provided.

4.10 The Marine Services Superintendent

The Marine Services Superintendent (MSS) is to ensure that the contract for marine services meets its defined outputs and deliverables as provided by the Marine Services Contractor (MSC) to the requisite performance standards at Clyde, and that all involved in the delivery of such outputs (Contractors/Stakeholders/Customers) undertake their respective responsibilities such that there is no deviation from, or dilution of, the core elements of the Contract. The MSS will also provide assurance that Marine Services work conducted locally is in accordance with the Contractor and Authority's MSEMS and other safety cases. The MSS also assures that vessels and equipment are compliant with current safety and statutory legislation. The post is responsible for the provision of professional Marine Services advice and providing intelligent customer support to KHM Clyde and DMS. MSS Clyde is responsible for overseeing that the contractor complies with all relevant maritime legislation and applicable codes and that the contractor provides a quality service with value for money.

4.11 The Assistant King's Harbour Master Clyde

The Assistant King's Harbour Master Clyde (AKHM) is responsible to the King's Harbour Master Clyde through the Deputy King's Harbour Master Clyde for the daily supervision of operations and activities within the CDP. Their first principal role is the management of the Port's Command and Control systems. They will also manage the Port's Harbour Operations and supporting operational documentation and be the lead for the controlled documentation that supports Port and Harbour Operations. They will consult with a wide range of stakeholders, agencies, and groups to satisfy the requirements of both outputs and the safety management. AKHM runs the licensing for fishing in the Loch Long Fishing Exclusion Zone, high speed craft and any other activities which require KHM Clyde's written permission under the Clyde Dockyard Port Order 2011.

4.12 The Port Safety Officer

The Port Safety Officer is responsible to KHM, through DKHM, for the delivery and operation of the Dockyard Port's Marine Safety and Environmental Management

System (MSEMS) under DSA02-DMR the MOD Ports and Harbours Regulations for Safety and Environmental Protection. Their duties will include the development and delivery of an MCA approved Oil Spill Response Plan, monitoring the capability and performance of the Tier 1 and Tier 2 Oil Spill Responders, being the KHM focus for all incident reporting and investigation, and to deputise for KHM on appropriate Authority and Local Safety Forums.

4.13 The Port Conservancy Officer

The Port Conservancy Officer (PCO) provides KHM Clyde through the DKHM Clyde with assurance that the Dockyard Port is safe for navigation including ensuring the Port is surveyed appropriately and mariners warned of anomalies and dangers. The role also involves making sure that navigational aids for the Dockyard Port are always serviceable and if not that the relevant authorities are informed, and repair action taken. The Port Conservancy Officer consults with Northern Lighthouse Board ensuring that all returns are met. PCO runs the licensing within CDP waters for moorings.

4.14 The Base Services Coordination Officer

The BSCO is responsible to the Deputy King's Harbour Master for the coordination of resources required to be supplied to all vessels within the Dockyard Port. The BSCO and their team provides the primary point of contact for all vessels within the Dockyard Port and deals with the routine organisation and practical support matters concerning the logistical requirements of both Base ported and visiting vessels.

4.15 Base Services Ship Managers

The Base Services Ship Managers are responsible to the BSCO for the co-ordination of Base-wide services for vessels within the Dockyard Port. They provide the primary point of contact for all vessels within the Dockyard Port and deal with the routine organisation and practical support matters concerning the logistical requirements of both Base ported and visiting vessels. The Ship Managers monitor and action LOGREQ signal requirements.

4.16 The KHM Business & Risk Manager

The KHM Business & Manager is a post shared between the KHM and Superintendent Faslane Site (SFS) directorates. They are responsible directly to KHM Clyde for the coordination of all departmental business requirements.

4.17 The Harbour Planning Manager

The Harbour Planning Manager (HPM) is accountable to KHM Clyde through the POM for the planning of all harbour movements and operations. The HPM monitors the KPIs for the waterfront which fall under the remit of KHM Clyde and reporting any findings to the Business Department for the monthly contract Service Delivery Group meeting.

4.18 KHM Harbour Planners

The KHM Harbour Planners are accountable to KHM Clyde, through the Harbour Planning Manager, for the planning and movements for vessels and harbour operations.

4.19 The Departmental Support Officer

The Departmental Support Officer is responsible to KHM Clyde through the Harbour Planning

Manager. The primary purpose of the Departmental Support Officer is to provide administrative and business support to the King's Harbour Master, ensuring routine administrative tasks are carried out and maintained to allow Port Operations to function effectively and to act as focal point for KHM Departmental queries in relation to this tasking.

4.20 KHM Admiralty Pilots

KHM's Admiralty Pilots conduct Pilotage of Military and Government Ships and Government Contracted Ships within the Clyde Dockyard Port and provide Pilotage Advice to Government Ships proceeding to designated MOD Facilities outside the Port. In addition, they provide a Harbour Control service to maintain safe navigation and security within the Dockyard Port and its approaches.

4.21 Port Description and Organisation

Set on the west coast of Scotland, approximately 25 miles west of Glasgow, the CDP has 65 miles of shoreline and encompasses three Sea Lochs. The port is complex and diverse and features major military and commercial infrastructures including HM Naval Base Clyde, home to the UK Submarine Service and supporting forces. It is also the location of the strategic weapons storage facility at Coulport, the major Oil Terminal at Finnart and Garelochhead and the MoD Munitions Depot at Glen Mallan. QinetiQ, a MoD business partner, also has facilities within the port that support RN operations. Furthermore, the port has significant recreational, environmental and aesthetic values, with one area of the port area being designated as a Maritime Protected Area (MPA) and another declared a Site of Special Scientific Interest (SSSI). The delivery of effective safety and environmental management is therefore paramount to the long-term protection and enhancement of this Port, for its users, its neighbours, the industries and economies that rely upon it, and the defence of the state. Figure 3 shows the statutory limits of the port as defined through The Clyde Dockyard Port of Gareloch and Loch Long Order 2011. This is illustrated in Figure 3 below.

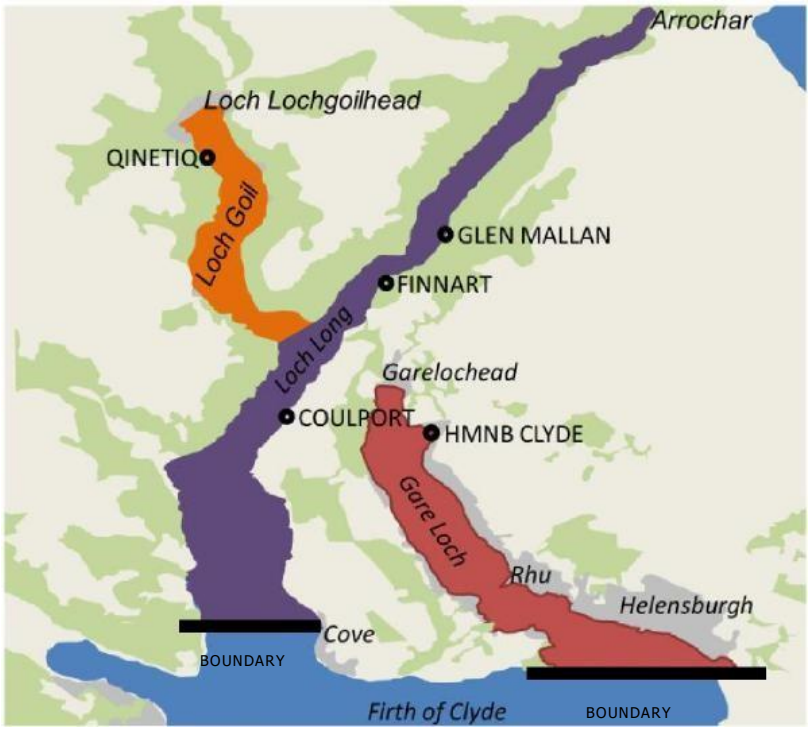

Figure 3: Clyde Dockyard Port Boundaries and Significant Infrastructure

4.22 Port Operations Battle Rhythm

To maintain the oversight of safety and the environment, interaction with stakeholders and to fulfil the requirements of DSA-02 Maritime Regulations KHM Clyde has a set battle rhythm of meetings and deliverables. These are captured in a live document hosted on the KHM Port Status Report.

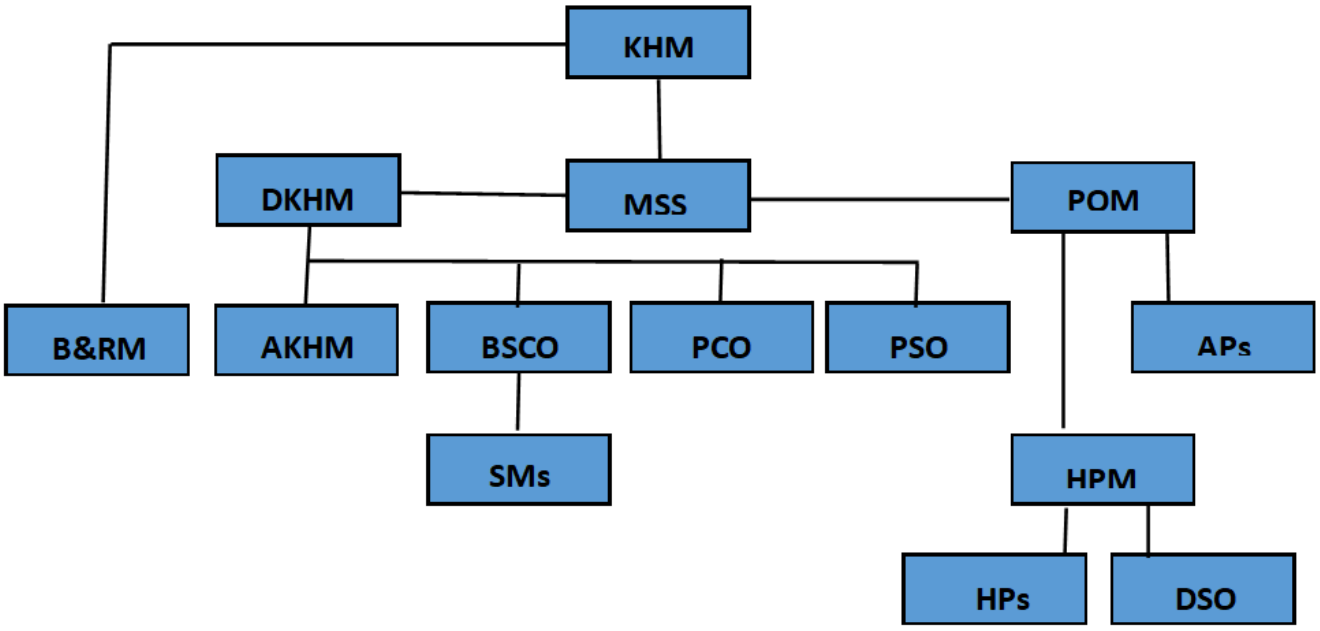

Figure 4: KHM Clyde Organisational Diagram

5.0 COMPLIANCE, MONITORING AND CONSULTATION

5.1 CDP MSEMS Compliance Aim

As stated in Paragraph 1.0 the CDP MSEMS aim is to comply with the requirements of the PMSC as far as is reasonable and practical as articulated in DSA-02 Maritime Regulations and to develop policies and procedures to regulate marine operations in a way that safeguards the CDP, its users, and the environment. Furthermore, the CDP have committed itself to ensuring that adequate resources are available to discharge its navigational safety and environmental compliance obligations. The CDP compliance methodology uses risk management, monitoring strategies, consultation, and training to achieve its compliance aim.

5.2 Risk Management

5.2.1 Risk Assessment and Port Status Report

The report from the CDP's initial Navigational Risk Assessment (NRA), undertaken in February 2010, provided the recommendations which, together with subsequent recommendations arising from both proactive and reactive reviews of hazards and risk control measures, form the Port Status Report (PSR).

The overall purpose of the PSR is to collate all actions from incident investigations that require to be implemented, to identify the person responsible, and to set target completion dates. The report also includes those departmental managers' targets affecting safety and operations which arise from the annual review process.

The PSR provides a tool for the continuous monitoring by management of all objectives and recommendations requiring implementation.

In summary, the primary objective of CDP's MSEMS is the implementation of the Policy for Managing the Safety of Navigation and Environmental Compliance. This is achieved by:

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

5.2.2 CDP Hazard Management Database

KHM uses a proven Marine Industry Management Information tool (MarNIS) to create and review Risk Assessments and record port safety event data for trend analysis. The Hazard Management database within MarNIS contains comprehensive details of all identified hazards, together with the associated risk control measures employed to mitigate those hazards. All hazards are maintained within the system in ranked order, based on the outcome of the risk assessment process. This ranking structure will change with time as the hazards and risk controls continue to be reviewed, reassessed, and rescored. MarNIS also includes a comprehensive audit record, which documents the outcome of the scheduled proactive hazard review process, any safety event review, and the addition of any new risk and its associated assessment. In each case the outcome of the review is recorded separately and includes:

- The action taken and recommendations made by the Port Safety Officer.
- The names of those involved and their recommendations; and,
- The subsequent decisions by the relevant risk assessors.

5.2.3 Safety Event Monthly Review

The Safety Event Monthly Review involves the following personnel:

- Port Safety Officer (host).
- Deputy KHM.
- Assistant KHM.
- Departmental Support Officer.
- Other KHM personnel on an ad hoc basis, as required.

The purpose of this meeting is to review the safety events of the previous month, with a view to agreeing onward actions and closing investigations, as necessary.

5.3 Risk Assessment Standards

5.3.1 Methodology

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

- Data gathering and familiarisation.
- Review of the existing management structure, risk control arrangements, policies, procedures, and operational functions.
- Identification of potential hazards and mapping of control measures.
- Risk Analysis.
- Consideration of the likelihood of identified hazardous events and their associated potential causes and consequences, including prioritising of their risk factors.
- Risk Assessment.
- Comparison of risk factors with effectiveness of existing risk control arrangements, and subsequent determination of additional control measures.
- Risk Control; and,
- Judgement and endorsement of specific control measures to be implemented and managed through the MSEMS.

5.3.2 Risk Level Criteria

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

Hazards are then ranked according to their numerically scored risk level. It is the principle aim of the on-going hazard review process to actively manage the risk control measures associated with each hazard and attempt to reduce the level of risk, and therefore the ranked score, at each review.

5.4 Risk Control Measures

Risk Control Measures fall into two categories, as shown in Table 1 below:

Documentation	Hardware
Regulatory Framework	Port RADAR System
Accurate Navigational Charts and other Navigational Information	Port CCTV System
Operating Manual and Guidelines	Clyde Radio System
Operating Procedures	Tide Gauge
Emergency Plans and Procedures	Aids to Navigation
KHM Local Notices to Mariners Maritime Risk Assessments	Moorings
Formalised Training and Assessment	Marine Services Vessels

Table 1 – Risk Control Measures

5.5 CDP MSEMS Hazard Review Process

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

In reviewing identified hazards and risk control measures KHM will involve Port Operations staff and port users as appropriate. The review of hazards and control measures are prompted by three circumstances:

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

The process used to implement, modify, or develop the MSEMS is shown in Figure 5 on the following page.

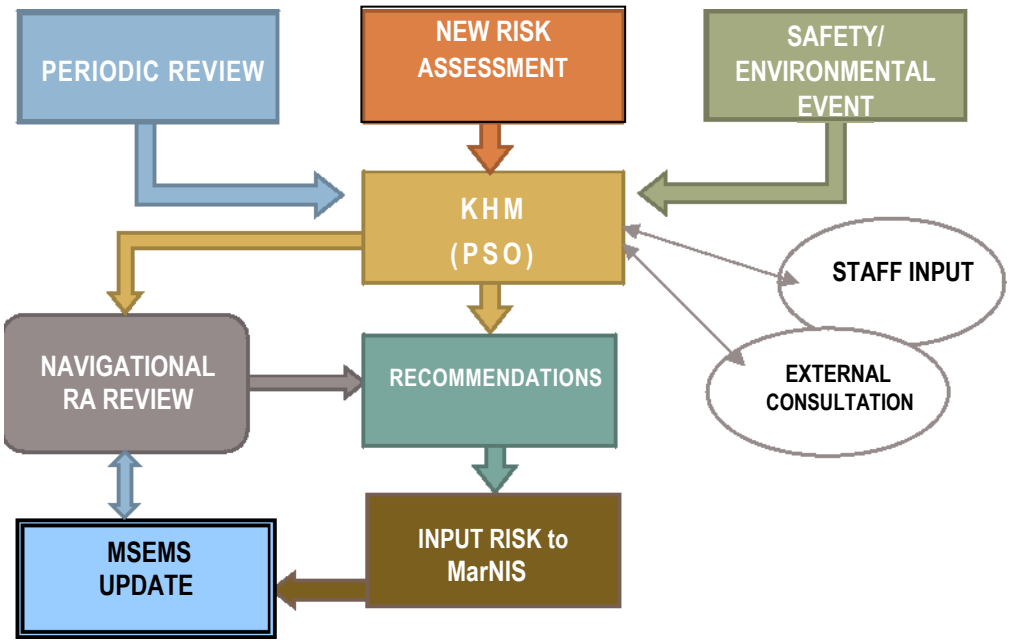

Figure 5: The CDP MSEMS Risk Development and Review Process

5.5.1 Periodic Reviews - Proactive

Scheduled and unscheduled risk reviews are undertaken by KHM personnel and relevant Port Users. This risk assessment review methodology ensures that all currently identified hazards are reviewed and the periodicity of review is dependent upon the ranking of the hazard as defined on MarNIS.

- MarNIS Risk Score greater than 5 – Annual Review
- MarNIS Risk Score between 3 and 5 – Biennial Review
- MarNIS Risk Score lower than 3 – Triennial Review

The PSO will undertake each review in consultation with staff members and other port users as appropriate.

5.5.2 Post-Event Reviews - Reactive

Following a marine event, the Port Safety Officer will undertake an initial investigation. For more significant events a structured investigation process is in place to identify the contributing causal factors. This will establish whether there has been a failure to comply with CDP regulations, or internal procedures, and whether further regulatory action is warranted. The PSO will also investigate the circumstances of the event from a MSEMS perspective and establish whether there is a need to review the relevant hazard and its associated control measures. This review may involve appropriate staff and relevant port users and, dependent upon the nature and outcome of the event, the KHM may convene a Learning from Experience event (LfE).

5.5.3 Risk Assessment Review Meeting

KHM aims to hold Risk Assessment Review meetings on an annual or biannual basis, as is appropriate for the number of RAs to be reviewed. The aim of this meeting is to evaluate all RAs due for review in that calendar year. Feedback from external stakeholders is sought remotely prior to the meeting. This is then incorporated into the agenda of the meeting, which is comprised wholly of KHM personnel.

5.6 New Risk Assessments

Whenever circumstances change to introduce activities into the port or to develop existing activities, which are outside the existing scope of the MSEMS, the PSO will, in full collaboration with the relevant stakeholders, undertake a risk assessment of the intended operation.

5.7 Risk Review Recommendations

Any recommendations arising from the various reviews of risks and hazards will be recorded in MarNIS and any new or revised operational guidance will be put in place, accompanied by training as necessary. Planned implementation will be recorded in the Port Status Report.

5.8 Documentation Control

The document control procedure will be in accordance with the requirements of HMNB Clyde's Business Management System (BMS).

All documents within the MSEMS are reviewed and approved, as appropriate, by the relevant Manager and the respective Line Manager prior to issue. Prior to approval the aforementioned shall ensure that:

- The correct issues of relevant documentation are available, where needed, by approved personnel.
- Obsolete copies have been removed.
- Changes and amendments to documents are reviewed and approved by the same personnel or department that conducted the original review and approval unless specifically designated otherwise.
- All controlled documents are issued in accordance with the above-mentioned document control procedure, including the production of a master list.
- Documents subjected to minor change and amendments are only reissued after a practical number of changes have occurred to avoid unnecessary paperwork.

5.9 Port Conservancy

The PCO has established an effective hydrographical survey programme for the 3 Sea Lochs to confirm and maintain the depths of channels and fairways, and to inform port users of any shoaling, obstructions and/or new wrecks identified during survey work. A risk assessment is conducted on any new or repositioned wrecks which pose a new or changed hazard to navigation.

The PCO also ensures that all Aids to Navigation (AtoNs) in the CDP are in a serviceable condition, inspecting them on a monthly basis and reporting any discrepancies or defects to the relevant Local Lighthouse Authority (LLA).

Tide gauges in the upper Gareloch and the Rhu Channel maintains real time observations for safety of navigation and records on which to base predictions plus variations from predictions/surges.

5.10 Pilotage

5.10.1 Overview

It has been established by risk assessment and mandated under the Port Nuclear Safety Case, that an Admiralty Pilotage Service shall be provided as an essential control measure for the safe movement of nuclear submarines and other vessels as directed by KHM and laid down in the CDP Pilotage Policy (Annex C).

5.10.2 Arrangements

Pilotage for the CDP is supplied by:

- The Admiralty Pilotage Service for military ships.

For the purposes of this MSEMS, 'military ships' means:

- Ships of war, of any nationality.
- Fleet Auxiliaries, of any nationality.
- Ships operating under demise charter to the MOD. The charterer takes full control of the vessel along with the legal and financial responsibility for it. Where this condition is not met, i.e., the MoD does not accept full legal and financial responsibility for the ship under hire, the ship is considered to be 'non-military'.

The Pilotage Act 1987 provides for the establishment of joint arrangements between Harbour Authorities, including a KHM, to exercise given functions. Arrangements for the delivery of pilotage pursuant to the Pilotage Act have been established between:

- KHM.
- Peelports Clydeport (COL).
- Finnart Oil Terminal (FOT).

KHM will ensure that any pilotage arrangements are formally organised in a manner that provides for associated statutory obligations that accord with the recommended best practice of the DfT noting that statutory responsibility for the determination of pilotage policy pursuant to the Pilotage Act 1987 may only rest with a Competent Harbour Authority. The contents of this Act precludes KHM from being a CHA.

5.10.3 Non-Military Vessel

Pursuant to the Pilotage Act 1987, the policy responsibility for the pilotage of non-military ships operating within the pilotage district of the Clyde lies with the CHA (COL).

In the development of pilotage policy, KHM, in conjunction with the adjacent CHA, will keep under consideration whether any, and, if so, what, pilotage services need to be provided to secure the safety of ships navigating in, or near, the approach to CDP. Furthermore, whether in the interests of safety, pilotage should be compulsory for ships navigating in any part of the area defined above and, if so, for which ships and in which circumstances pilotage services need to be provided for those ships.

Under an MOU the Port Authorities will review the provision of pilotage services for non-military ships:

- On each occasion that the use of either port changes, where it affects the other, in such a way so as to affect the requirements of the service provided, which may include amongst other things:

- Developments in ship design and operation in fulfilment of International, European, and National standards; and,

- Alterations to the physical characteristics of the port including the built environment.
- As required to implement amendments to national legislation and / or policy.
- To address any relevant recommendations of the MAIB or KHM as an outcome of investigations either party may undertake; and,
- Notwithstanding the above, after a period not exceeding three years.

KHM will:

- Ensure that the MCA is informed whenever reports are received from a pilot that a vessel has deficiencies, which may prejudice the safe navigation of that vessel, or may pose a threat of harm to the environment.
- Will provide, on request from COL, a suitably qualified person to advise on the PEC board for any vessels whose master and/or mate have applied for a COL PEC and who intend to operate within the waters of the CDP.
- Review conformance to its Pilotage Directions and take appropriate action should any breach be identified.
- Provide, in the most appropriate format, up-to-date passage guidance applicable to the port; and,
- With reference to the geographical limit of the CDP Pilotage Directions, identify safe boarding and disembarkation areas. The location of boarding and disembarkation areas will be published as a Notice to Mariners and notified to the UK Hydrographic Office.

The Port Authorities will:

- Determine through a process of formal risk assessment any circumstances in which more than one pilot would be needed to conduct the navigation of a non-military ship or floating structure safely to any berth within the CDP; and,
- Ensure that suitable arrangements are in place to assist in securing access to non-military ship passage plans and VTS records if they may be needed for investigation purposes.

5.10.4 Military Vessels

The KHM has responsibility for the pilotage of military ships operating within the limits of the CDP and for Government Ships proceeding to designated MOD facilities (OPA Jetties) under MoU arrangements. In the development of pilotage policy for the above, the KHM will keep under consideration whether any, and, if so, what, pilotage services need to be provided to secure the safety of military ships navigating in, or near, the approach to the CDP. Furthermore, whether pilotage should be compulsory for military ships and, if so, for which ships and in which circumstances pilotage services need to be provided for those ships.

The KHM will ensure that proper arrangements are in place for assessing the competence of Admiralty pilots, maintaining the currency of their local knowledge and conformance to the required standards of fitness. Details of these arrangements will be documented and made available to all Admiralty pilots. The KHM will ensure that all Admiralty pilots are trained and qualified to conduct the vessels to which

they are likely to be allocated. The KHM will ensure, where applicable, that arrangements are in place for pilots to be allocated to vessels with sufficient time and information available to prepare a pilot passage plan.

DMS will ensure that vessels used as pilot launches and workboats to serve military ships will, where applicable, conform to the Merchant Shipping (Small Workboats and Pilot Boats) Regulations 1998 and the associated MCA Safety of Small Workboat and Pilot Boat Code of Practice.

The KHM will use and promote the use of appropriately detailed passage plans within the port.

The KHM will provide, in the most appropriate format for military ships, up-to-date passage guidance applicable to the CDP.

5.11 Port Guidance

KHM will ensure that appropriate advice and guidance is developed and published, in suitable formats for port users, to facilitate the safe and efficient operation of shipping within the CDP. This information will address, amongst other things:

- Channels, berths, and anchorages.
- The Harbour Authorities process for movements and harbour operations.
- Tidal and other environmental information.
- Minimum under keel clearance for operations within the CDP.
- The use of tugs and support vessels.
- LPS communications and procedures.
- Safety and environmental requirements for vessels in port waters.
- Emergency management procedures and port security.
- Port services details and contacts; and,
- Recreational activity, including fishing and diving.

5.11.1 KHM Clyde Directions

KHM Clyde's Directions may take three forms: General, Special or Local Notices to Mariners. It is the duty of KHM Clyde in exercising these powers to consider the interests of all shipping and users in the port.

5.11.1.1 General Directions

A General Direction (GD) is a legal direction to be observed and complied with by port users and vessels when operating in the Clyde Dockyard Port (CDP). Issued only by KHM under the authority conferred from Statutory Instrument 2011 no. 1680 (The Clyde Dockyard Port of Gareloch and Loch Long Order 2011), they can be discrete to vessel type or area, or applicable to all. Failure to comply with a GD is enforceable by law and can result in prosecution. GDs are reviewed and reissued annually at the beginning of each year.

5.11.1.2 Special Directions

Special Directions are verbal directions delivered over VHF radio or in person and are issued by personnel authorised to do so by KHM as a Harbour Controller of Duty KHM. As with General Directions, they are legally enforceable and failure to comply can result in prosecution.

5.11.1.3 Local Notice to Mariners

Local Notices to Mariners (LNTMs) are used to rapidly disseminate navigational safety information, particularly about defective or out of position Aids to Navigation (AtoN); unexpected wrecks or obstructions, or uncharted shoal depths; underwater operations which may create temporary obstructions shallower than charted depth; any other item that is at variance to charted information. They are also used to disseminate information regarding activities, events, or general information pertinent to individuals or vessels operating in the CDP area. Examples include dredging; bathymetric surveys; open water swims; large regattas; air displays or pertinent safety advice. Published on the website, they are also sent by formatted signal to RN warships and RFAs. This information can remain in force for extended periods, usually until the item is rectified or the details are accurately recorded and distributed on the relevant Admiralty Charts. Individuals or organisations may make application for an LNTM to be published, although the decision to do so ultimately remains at KHM's discretion. LNTMs will either be designated as a Direction or Information in the opening paragraph. All LNTMs are to be approved by KHM Clyde before issue. The procedure for the issue of LNTMs is contained in the Port Conservancy Manual and on the Business Management System as a process map (HO(C)-PM-012).

5.12 Vessel Traffic Services – Local Port Service

Vessel Traffic Services (VTS) in the form of a Local Port Service (LPS) is provided throughout the CDP port limits. The LPS is operated by a Harbour Controller situated in Port Operations 7 days a week during working hours and during any major move. It is monitored in the Naval Base Incident Command and Control Centre (ICCC) at all other times.

5.13 Vessel Operational Standards

The PMSC requires the CDP to manage marine operations and regulate navigation within the port to reduce the risk of marine safety and environmental events to a level where the risks are as low as reasonably practicable (ALARP). There are many component parts to this process, including the risk assessment process itself, which identifies active risk control measures such as the provision of Pilots, VTS services and up to date hydrographic information. A key component part of this system is that vessels navigating the port, whether subject to pilotage or not, are maintained to appropriate standards, and operated in a competent manner commensurate with the relevant national and international legislation.

5.13.1 Nuclear Powered Warships

UK Nuclear Powered Warships (NPW) are routinely allocated an active escort tow for transiting the Rhu Restricted Channel and the entry/exit channel for Loch Goil. Other nation's NPWs are not mandated to but are recommended to adopt this towage configuration. UK NPWs are also mandated to conduct a dynamic risk assessment (DRA) prior to entering or leaving the port to confirm that:

5.13.1.1 Moves from Sea to the CDP

Consider the cumulative impact of defects, propulsion line up, and any changes planned are to be considered carefully, and mitigation worked through to decide

whether the pilotage can be conducted safely. Factors are to include: the risk to propulsion and control surfaces, the effect of environmental conditions, and the configuration of systems achievable before commencing River Routine, and not to plan on being able to achieve potentially improved status later in the transit of enclosed waters – plan on the worst case. The outcome of the DRA is to be signalled to NBC Clyde at the earliest opportunity (but, ideally 24 hours before the planned move), to allow KHM Clyde to plan for additional mitigation measures. The findings of the DRA are to be reviewed with the pilot during the CO/Pilot exchange.

5.13.1.2 Moves from the CDP to Sea

The DRA is to consider engineering status, environmental conditions, training status (crew SQEP), and time alongside, as key factors in the risk to platform. The CDP to sea DRA should be reviewed with the Admiralty Pilot at the leaving harbour brief to determine an agreed assessment of the conduct of the move.

All vessels should also ensure that:

- Charts and Navigational publications up to date.
- A Port Passage Plan has been prepared.
- The vessel is compliant with ISM code or, no deficiencies/defects in respect of crew, navigational equipment, propulsion, and manoeuvring machinery.
- Arrangements have been made to provide appropriate mooring assistance at the intended berth.
- Effective bridge resource management and appropriate support for the embarked pilot.
- Compliance with relevant port security requirements (in conjunction with individual port facilities).

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

5.14 Harbour Patrols

The CDP is constantly patrolled by vessels from the Clyde Marine Unit Ministry of Defence Police (CMU) with supporting administrative and regulatory functions, to assist in the effective regulation and enforcement of the Policy for Managing the Safety of Navigation. See Annex D for the Enforcement Policy for the CDP.

5.15 Marine Services Provision

Marine services within the CDP are provided by SERCO through the Continued Provision of Marine Services (CPMS) contract. The contract includes provision for towage, pilot vessels, passenger transfer, stores, removal of waste, oil pollution response and support to training exercises. The MSS has responsibility for the oversight of this contract within the CDP.

The MSS reports to the KHM to ensure local Intelligent Customer capability for the range of Marine Services. The MSS also has a functional line to Defence Marine Services (DMS) Team Leader.

The MSS provides assurance to KHM Clyde and DMS that the contractor is fulfilling their contractual obligations locally in terms of commercial performance and regulatory compliance.

5.16 Emergency Preparedness and Response

KHM will establish emergency response plans and procedures to address marine safety or environmental events. The purpose of this plan is, in the event of an emergency affecting the CDP, to specify the means for raising the alarm, alerting persons liable to be affected, summoning assistance, and establishing the role of the organisations involved to coordinate the activities necessary in safeguarding life, property and the environment, allowing the mitigation of the effects of any such event. For this plan to operate effectively it must achieve compatibility with the plans of Argyll & Bute Emergency Coordination Group. It is based on the doctrine of Integrated Emergency Management (IEM). The aim of IEM is to develop flexible and adaptable arrangements for dealing with emergencies, whether foreseen or unforeseen. It is based on a multi-agency approach and the effective co-ordination of those agencies. It involves Category 1 and Category 2 responders and the voluntary sector, commerce, and a wide range of communities.

5.17 Consultation and Communication

Feedback from both Port Operations personnel and other Port Users is a vital MSEMS component. All Port Users are actively encouraged to be involved in the management of marine safety and environmental compliance. This includes input into the development and implementation of the MSEMS and its operational risk management controls.

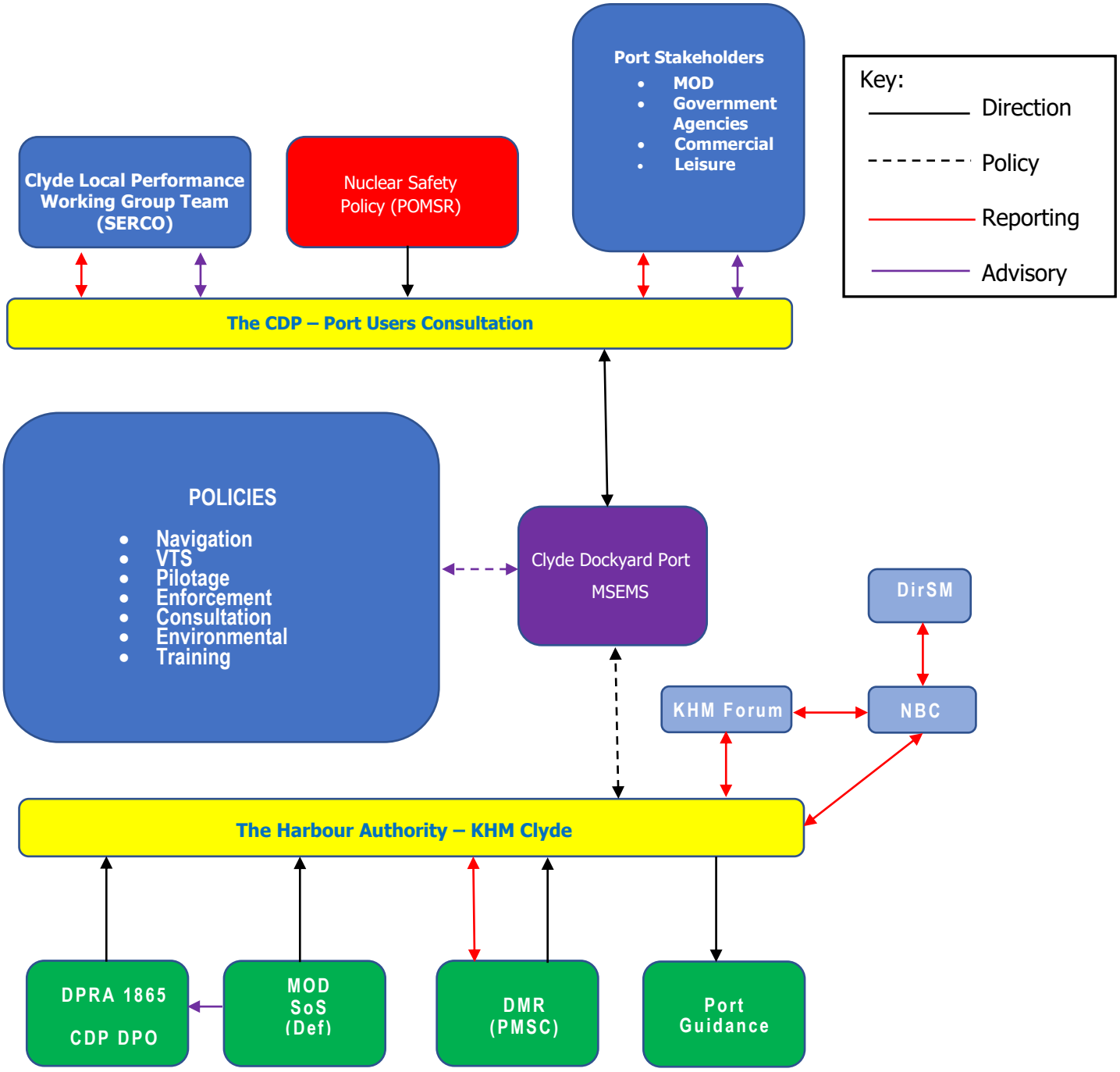

Figure 6: Functional Structure for the Management of Marine Safety and Environmental Compliance

5.17.1 Overview

KHM consults with all port users, including the adjacent SHA through various committees as listed below. This assists KHM Clyde with all matters related to the management of safety and environment compliance within port waters; it is the consultation process that brings together port stakeholders to promote the delivery of integrated safety and environmental management for the CDP.

This consultation process will:

- Assist KHM to develop and maintain the MSEMS and related policies consistent with the PMSC, the general safety policy for the port, the environmental policy for the port and the nuclear facility safety cases in place.
- Establish safety performance measures for the port.
- Review the effectiveness of the MSEMS against safety performance measures, including:
    - Safety events since last meeting.
    - Updates on investigations / recommendations.
    - Review of navigational safety barriers.
- Appoint members to, and establish the work programme for, Sub-Groups as may be convened to address specific issues.
- Promote the involvement of all relevant stakeholders in the consultation underpinning the development of navigational safety policy for the CDP.

5.17.2 Port Risk Assessments

Port Risk Assessments are conducted using relevant port stakeholders and KHM Clyde personnel and meetings are chaired by the PSO. The aim of the review meetings is to identify and agree on Port hazards and review current risks to ensure they are ALARP. This meeting convenes as required and reports its output to DKHM.

5.17.3 The Port Users Group

The aim of the Port Users Group (PUG) is to provide a biannual forum where marine safety and environmental issues, including pollution prevention and control, can be discussed, considered, and resolved by MOD and internal Naval Base Stakeholders. The group has three objectives:

- To promote co-operation between KHM Clyde management and other HMNB Clyde and CDP key marine stakeholders in the pursuit of legislative compliance and too continually improve Port Safety culture.
- To provide a method for consulting with the key marine stakeholders on marine port safety and environmental arrangements and issues that could affect them.
- To monitor and review Port Safety performance against the relevant elements of the CDP MSEMS.

5.17.4 The Dockyard Port External Liaison Committee

The aim of the Dockyard Port External Liaison Committee (DPELC) is to provide a biannual forum where representatives from the Port Authority and representatives from key external stakeholders can discuss, consider, and resolve port safety and environmental issues. The committee has three objectives:

- To promote co-operation between KHM Clyde and non-MoD marine stakeholders, in the pursuit of legislative compliance and to continually improve Port Safety culture.

- To provide a method for consulting with the key external marine stakeholders on port safety and environmental arrangements and issues that could affect them.

- To monitor and review Port Safety performance against the relevant elements of the CDP MSEMS.

5.17.5 Other Marine Stakeholders Forums and Responsibilities

Other Marine Stakeholder forums provide input about specific issues to KHM. They will be convened at specific intervals; the following being considered appropriate at this time:

- Pilot and Tug Master Liaison Group
  - All aspects of towage and common working practices.
- Finnart Liaison Group
  - The management of interaction and safety involving Port Operations and Finnart Operations
- Clydeport Security Group
  - The management of marine security in the Clyde.
- Clyde Moorings Committee
  - The Management of moorings and interaction with other mooring committees in the Clyde
- Diving Safety Committee
  - The management of diving safety within the Dockyard Port for Military and Commercial diving only
- Clydeport BILAT
  - Management meeting between KHM Clyde and Peelports Clydeport to ensure each other is aware of operations and issues.
- Clyde Forum
  - Safety and environmental management in the Clyde
- Clyde Local Performance Working Group
  - Two monthly management meeting between KHM Clyde and SERCO to review the performance of the Marine Services Contract, discuss health and safety, vessel performance and any issues that require elevating to the Executive Partnering Team (EPT)
- Site Safety Case Working Group
  - Three monthly meeting to review and progress the Port Site Nuclear Safety Case and prepare the POMSR Annual Review for the Clyde Nuclear Safety Committee (CNSC)
- Oil Spill Contingency Plan Review
  - Consultation between KHM Clyde and all stakeholders that is adjacent to the CDP from both a land and marine perspective.
- Small Vessels Working Group
  - Consultation between KHM Clyde and all stakeholders with an interest small vessel operations.
- Defence Ports Forum
  - Hosted by Captain Port Ops and their team.
- Clyde Site Infrastructure Management Monthly (SIMM).
  - Monthly infrastructure meeting hosted by DHI and DIO, attended by AKHM and PCO.

The configuration of these groups may change from time to time, dependant on the harbour user experience most able to contribute to the issue under consideration. A harbour user group may be formed by individual invitation, or it may be formed from an existing Harbour Interest group, depending on the issue being considered.

5.18 Performance Monitoring

The CDP performance-monitoring process is designed and driven by the DP to progressively monitor and improve marine safety and environmental compliance. By measuring key indicators, which reflect both the performance of the CDP and that of port users, appropriate measures can be adopted and introduced which further improves marine safety.

5.18.1 Performance Measures

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

- Facilitating the safety of navigation and environmental compliance within the CDP
- Number of controlled moves within the Dockyard Port
- Number of Maritime Safety Events relative to the number of vessel moves.
- Availability of CDP navigation lights and buoys.
- Babcock – berthing tasks
- Serco – provision of marine services
- Diving safety incidents and near misses
- Total number of reported environmental events.
- Number of prosecutions initiated.

The CDP Annual Report reviews all CDP performance measures on an annual basis; reported monthly to the PDH (NBC Clyde) and at NBC Directors Performance Review.

5.18.2 Monitoring

The day-to-day monitoring of marine safety management and environmental compliance is conducted by Harbour Control and regular port users especially the waterborne security forces. Evaluation of the level of compliance is achieved through:

- Proactive systems that monitor performance in relation to objectives and operating standards; and
- Reactive systems which investigate safety and environmental events.

5.18.3 Proactive Monitoring

The responsibility for conducting compliance monitoring lies primarily with the PSO. The PSO, however, must ensure that all levels of management participate in the monitoring regime.

5.18.4 Reactive Monitoring

The CDP aims to create an environment within which all marine safety events are reported. The Dockyard Port Order requires that a Commanding Officer or Master provides a report to KHM Clyde should their vessel be involved in a safety or environmental event. However, all Port Users are encouraged to report other events, for only by understanding the causes and

avoidance measures adopted in all such circumstances can lessons be learned and incidents be avoided in the future.

5.19 Performance Reporting

5.19.1 Port Duty Holder (NBC Clyde)

A monthly briefing is given to the PDH. This briefing provides a snapshot of port performance over the previous month, together with any trends of safety and environmental events reported. Headline issues and risks are discussed, and appropriate responses agreed.

5.19.2 Naval Base Board

KHM Clyde, as the Port Director attends the monthly Naval Base Board which is made up of all Naval Base MOD Directors. The Naval Base Board is the primary governance vehicle for HMNB(C) reporting to the 2* DirSM. Ensuring accountable and visible governance of HMNB(C) in delivering its business plan and strategy, and meeting the needs of its primary customers, through Safety, Security and Effectiveness.

In the port governance structure, this meeting acts as the Harbour Board where KHM reports on their performance metrics as well as highlighting specific issues to the other Directors, particularly where there is an impact on wider Naval Base business.

5.19.3 The KHM Forum

Held every six months (nominally Jan and Jul), the purpose of the KHM Forum is to bring together the KHM's from the three Dockyard Ports to discuss pertinent port operations and safety matters, with a view to achieving consensus and commonality of practice. The KHM Forum was born from the defunct Dockyard Ports Advisory Board, with a view to feeding cross-cutting issues into the Naval Base Management Board. Chaired by Capt Port Ops and organised by SO2 Port Ops, the KHM Forum can be held either remotely or in-person, depending on other activity. The agenda for each Forum is agreed in advance, with KHMs invited to suggest agenda items that they believe are relevant. Specific agenda items or specialist input may require the attendance of individuals from other organisations, such as AFSUP, DMR, Navy Safety Centre or the civilian marine sector.

Any issues requiring attention at 1* level are taken forward by Capt Port Ops for higher level engagement.

5.19.4 The CDP Annual Report

The CDP produces an annual report to the following stakeholders:

- NBC Clyde
- COMFASFLOT
- Captain Port Operations
- SERCO
- Other relevant Stakeholders

5.19.5 KHM Plan of the Week Meeting

Internal performance monitoring is managed through the KHM Plan of the Week (PLOW) meeting. This is held on Mondays and is attended by the following KHM personnel:

- KHM (optional).
- Deputy KHM (host).
- Marine Services Superintendent.
- Port Operations Manager.
- Assistant KHM.
- Base Services Coordination Officer.
- Business & Risk Manager,
- Port Conservancy Officer.
- Port Safety Officer.
- Harbour Planning Manager.
- Departmental Support Officer.

This meeting utilises the KHM Port Status Report to monitor progress towards and achievement of departmental objectives.

5.19.6 KHM Team Brief

The KHM Team Brief occurs on a quarterly basis and provides all KHM staff with a forum to raise any concerns they may have and brief any developments in their work area which could have an impact upon the department. All KHM personnel are invited to attend this meeting, which is hosted at the KHM Renown Building by the KHM.

5.19.7 KHM Heads of Departments Meeting

The KHM Heads of Departments (HoDs) meeting occurs monthly, and is attended by the following personnel:

- KHM (host).
- Deputy KHM.
- Marine Services Superintendent.
- Port Operations Manager.

This meeting provides a forum for the personnel notes above to brief KHM on the outputs of their departments.

5.20 Manuals, Procedures and Operational Guidance

The foundation of the CDP's MSEMS are the knowledge, skills, experience, and overall competence, underpinned by appropriate training, of individuals within the system. Operating controls in the form of operating manuals, procedures and orders reinforce this. Departmental manuals provide directions and guidance on the core functions of the department.

Operational guidance is contained in Part B of CDP MSEMS.

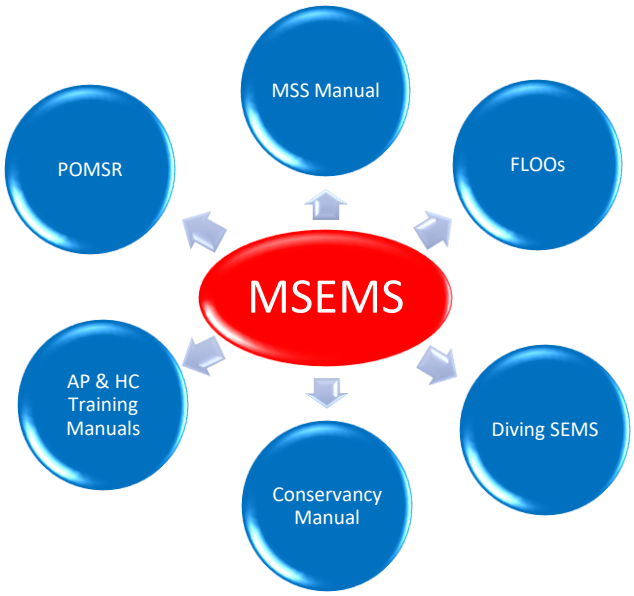

Figure 7: MSEMS Manuals

5.21 Environmental Compliance and Management

The CDP maintains effective procedures and control measures designed to ensure that the potential impact on the environment is fully considered when planning or approving military, commercial and recreational activities within the port. The CDP will also consider the guidance for environmental duties as stated in the Harbour Act 1964 (and updated by the Harbours (Scotland) Act 2015) which requires a Harbour Authority, in formulating or considering any proposals relating to its functions under any enactment, to have regard to various environmental matters, including conservation, freedom of public access to places of natural beauty and the availability of facilities. Marine Scotland regularly conducts patrol of the CDP area and in particular Loch Goil (MPA).

5.21.1 Flora, Fauna, and Marine Life

From the three sea lochs that make up the CDP to the waters of the Firth of Clyde there is an abundance of flora, fauna and marine life which are valued by local communities for recreation and tourism, as well as for fishing and aquaculture.

Key Clyde features include:

- 17 seabird species breed in the Firth of Clyde
- Major shellfish fishing and cultivation industries
- Grey and common seals, dolphins, whales, porpoises, basking sharks

5.21.2 Events involving Flora, Fauna, or Marine Life

Any environmental or safety event involving flora, fauna or marine life should be reported to KHM who will inform the necessary authorities.

5.22 Environmentally Sensitive Areas in the CDP

5.22.1 RAMSAR Area

The qualifying interest at this site (Gareloch) is the non-breeding Redshank.

5.22.2 Site of Special Scientific Interest (SSSI)

The Inner Clyde Site of Special Scientific Interest (SSSI) contains the intertidal zone of the Clyde estuary from Clydebank in the east to a line between Helensburgh on the north shore and Greenock on the south shore. The seaward boundary of the site extends as far as Mean Low Water Springs. The site is the most northerly of Britain's large west coast estuaries used by migrating birds and is of national importance for its populations of wintering wildfowl and waders and of European importance for its wintering population of redshank. The site also supports a variety of typical estuarine plant communities with good examples of transitions from saltmarshes to brackish swamps and grassland periodically inundated with sea water. The Inner Clyde regularly supports nationally important wintering populations of several species of waterfowl, including redshank, red-throated diver, cormorant, eider, goldeneye, red-breasted merganser, and oystercatcher. Principal roosting site is at Ardmore.

5.22.3 Special Protected Areas (SPA)

The Inner Clyde is a long, narrow, heavily industrialised estuary on the west coast of Scotland. The Inner Clyde SPA extends 20km westward from Newshot Island to Craigendoran Pier on the north shore and to Newark Castle on the south shore. It contains extensive intertidal flats which support large numbers of wintering waterfowl. The boundary of the Inner Clyde SPA is coincident with that of the Inner Clyde SSSI. The Inner Clyde SPA qualifies under Article 4.2 by regularly supporting an internationally important wintering population of redshank.

5.22.4 Marine Protected Area (MPA)

The sea lochs of the Clyde are long and narrow. The differences in water movement and salinity from the entrance to the head of the lochs results in a range of habitats where an amazing diversity of plants and animals thrive. Protected features in this area include Burrowed mud; flame shell beds; horse mussel beds; ocean quahog aggregations; sub littoral mud and specific mixed sediment communities.

5.22.5 Diving Considerations

All diving project plans must consider the environmental aspects of the diving tasks both on the diving team and on the local environment and this should be captured in the appropriate Risk Assessment and Method Statement.

5.22.6 Environmental Considerations

Port Users should consider the following when operating in the CDP to ensure environmental compliance:

- Assessment of wind, wave, and tidal conditions.
- Assessment of the risk of hypothermia.
- Assessment of the local marine life (stings, scratches, and bites).
- The use of fuels and lubricants.
- Exhaust fumes from machinery.

- Running machinery (decibel levels).
- High pressure air and water machinery (debris).
- Protocols when operating near protected species.
- Protocols when operating in marine sensitive areas.
- Waste management.

5.22.7 Environmental Impact Assessment

The greatest potential risk to the environment from harbour operations is contamination by oil spill. This is not to ignore nuclear safety, but this issue is dealt with by the wider Nuclear Emergency Response Organisation (NERO) which operates at national level. Environmental impact is implicit within the NERO strategy although it follows after saving life. At the harbour level, Oil Spill Contingency is the highest environmental priority. The Clyde Dockyard Port Oil Spill Contingency Plan (OSCP) deals with the risk of oil spill and how it is dealt with as well as outlining the training which supports the response. It also contains the Environmental Impact Assessment.

5.22.8 MARPOL Risks

The below hazards have been identified by KHM personnel, have been Risk Assessed and stored on the MarNIS database:

- Vessel Bunkering Operations in HMNB Clyde.
- Tanker Collision.
- Land Spill to the CDP.
- Light Oils Spill
- SD OILMAN Loss of Containment
- Fuel Operations at OFD Garelochhead
- Fuel Operations at INEOS Ocean Terminal Finnart
- Collision in the Dockyard Port.
- Grounding/Stranding in the Dockyard Port.

5.22.9 Oil Spill Response

The most likely MARPOL event is a diesel (F76) or hydraulic oil (OX30) spill, the most common types of fuel carried by Port Users. Heavy Oil and Crude are found within the Dockyard Port although under different agencies. In the case of crude oil, the Finnart Terminal, there are robust containment measures operated by the competent teams at Finnart. If a MARPOL event is declared within the CDP, the Duty KHM will set up an initial base in Harbour Control and follow the emergency operating procedure as referred to in the OSCP and in Part B of the MSEMS.

5.22.10 In Water Hull Cleaning

The introduction and distribution of invasive non-native species (INNS) is an issue that has risen in prominence as the impacts of unintentionally transporting species through shipping become better understood. It is an environmental, social, and economic problem. Marine non-native species can be introduced to the UK through the transportation of organisms attached to, and contained within, any space on a submarine or surface vessel that is exposed to seawater movement. This includes the hull, ballast spaces, flooding grilles and water inlets. Due to the environmental threat posed by hull cleaning it is necessary to permission hull cleaning activities in the CDP on a case-by-case basis as part of KHM's Marine Biosecurity Plan. KHM will use the current CESO Guidance in consultation with the vessel and other relevant

stakeholders before permitting any in water hull cleaning task that may or may not include diving.

5.22.11 Marine Bio-Security – Invasive Non-Native Species

Invasive Non-native species (INNS) are those that have been moved to a location out-with their native range by human action, whether intentionally or not. As well as posing a threat to biodiversity, INNS can disrupt several marine economic activities by fouling or smothering of shellfish and fish farms, marinas, and mooring pontoons, or in extreme cases, fouling of waterway. It has proven to be costly to manage these impacts and to date, there has been no wholly successful eradication of a marine INNS. High impact INNS in the Clyde area are shown on Table 1 at the next page.

Type	Impact	Image
Carpet Sea Squirt	Smothering of soil for common seed plants. Smothering of coral, seaweed, and mussels.	
Leathery Sea Squirt	Fouling of solid surfaces in shallow waters, blocking outfalls and colonising local common sea squirts.	
Common Cordgrass	Smothering of natural eco-systems and preventing birds from feeding.	
Wireweed	Fouling of aquaculture installations.	

Table 2 – Invasive Non-Native Species (INNS)

5.22.12 Protected Species

Compliance with the requirements of the Marine Management Organisation (MMO) and Nature Scotland in respect to obtaining licences and avoiding the disturbance of protected species is the responsibility of the diving contractor in conjunction with

KHM. These additional protocols have been implemented to ensure best practice when protected species are encountered during any diving activities in the CDP.

- If a protected species, for example Seahorses, are encountered during diving activities it should not be touched, chased, or disturbed as it is an offence to disturb them.
- If a protected species is encountered by chance, it is requested to record the position (coordinate grid reference) and when reasonably practicable take a maximum of three photographs (without flash) then move on.
- If the species swims away do not chase it as this is disturbance and is against the law.
- When recording observations of smaller species such as seahorses, do not hover over the protected species, keep your distance, and calmly make your observations. At all times spend no more than 5 minutes around the species to avoid them getting stressed.
- If there are several divers do not surround the species, so it can move away if it wants to.
- Sightings of unusual nature shall be reported to the diving supervisor and manager accordingly who will inform KHM Clyde. KHM Clyde will inform all the relevant authorities of the sighting to ensure the correct record is submitted.
- The following shall be recorded and reported to KHM and Marine Scotland:
    - What was seen.
    - Where and when was it observed.
    - How many individuals were observed.
    - What was their activity during the sighting e.g., was it attached to an object, floating in the water column, swimming, feeding etc.
    - Who recorded the sighting.
    - Coordinate grid reference and if possible, photographs (maximum of 3 pictures without flash).

5.22.13 Committal of Ashes in the CDP

KHM Clyde is requested on occasion to permit and facilitate a committal of ashes inside the waters of the CDP. To comply with Marine Scotland and the Department of the Environment, Fisheries and Rural Affairs (DEFRA) regulations and ensure rapid assimilation into the marine ecosystem, the materials used to construct a casket should not be synthetic, nor be of a species of timber, such as oak or elm, nor should it contain lead, zinc, copper, brass, or any other metal harmful to the environment.

The specific area where the committal will take place is subject to a discussion between the family and KHM Clyde.

6.0 INCIDENT MANAGEMENT

6.1 Introduction

This policy sets out the reporting and investigation process for all marine safety and environmental events within the CDP.

6.2 Aim

The aim is of this policy is to provide a framework compliant with the requirements of JSP 375 Vol.1. Chapter 16. KHM Clyde aims to meet the regulatory requirement to record and investigate all events involving sea going vessels or other vessels, within the CDP area of responsibility, to:

a. learn from an event and prevent reoccurrence; and,
b. determine whether enforcement action is appropriate.

6.3 Background

MOD ports are complex regulatory environments. However, the principle that the KHM is responsible for the safe operation of the port remains constant, wherever its location. The relevant civilian and military regulations that shape this policy is summarised below fall into two parts those that apply to:

a. MOD Ports in the UK and overseas:

(1) **DSA-02 Maritime Regulations.** The regulatory framework for the operation of Dockyard Ports requiring each Port to conduct and record a robust risk assessment of its activities and produce a MSEMS to govern its safe and compliant operation. Reg 407 details the accident investigation policy. It is based on industry best practise as articulated by the Port Marine Safety Code and its Guide to Good Practice.

a. MOD Ports in the UK and EU:

(1) **The Merchant Shipping (Accident Reporting and Investigation Regulations 2012)**. These regulations set out the reporting criteria for accidents that occur on any UK ship (subject to size exceptions) or that occur on any ship within the UK or UK waters within the jurisdiction of a Harbour Master/KHM. The duty for reporting an accident is the master of the vessel and, "in the case of an accident within or adjacent to the limits of any harbour, the harbour authority for that harbour". Notification is made to the 'Chief Inspector'. In the UK this is the Chief Inspector of Marine Accidents appointed by the Secretary of State.

(2) The Defence Accident Investigation Branch (DAIB) provides Defence with an independent, multi-modal accident and incident investigation capability. Able to deploy worldwide, the DAIB is on standby 24/7 to conduct impartial and expert no-blame safety investigations across the air, land, and maritime domains. The DAIB will be informed and consulted for any marine accident that causes entire or partial disablement of a ship or submarine for service, e.g., collision, grounding, explosion, serious fire, or serious flood. Any accident where a maritime system has failed and has compromised safety to personnel or the public.

b. MOD Ports in the UK only:

(1) Chief Inspector of the Marine Accidents Investigation Board (MAIB). The MAIB is an independent organisation within the Department for Transport who is responsible for investigating marine accidents involving UK vessels worldwide and all vessels in UK territorial waters. The MAIB have issued MGN 564 (M+F) to mariners, transposing the requirements of the 2012 Regulations.

(2) A Memorandum of Understanding has been signed between the RN and the MCA. This defines the Principles of Co-operation between the RN and the MCA for

i. Operation and coordination of the safety management of Ministry of Defence Shipping on non-commercial service.
ii. Cooperation regarding the management of the Defence Shipping Register and maritime autonomy.
iii. Cooperation regarding MOD application of the Port Marine Safety Code and Vessel Traffic Services.
iv. The MAIB will be informed of every accident (within the meaning of the Merchant Shipping (Accident Reporting and Investigation) Regulations) involving a MOD ship, other than a ship of His Majesty's Navy, on non-commercial service. For MOD ships that are registered, this requirement is mandatory under merchant shipping legislation. At Version 5 of this MoU the MAIB was removed, with the intention to develop a separate and more appropriate MoU with the MOD to cover the specifics of Marine Accident Investigation, particularly the relationship with the Defence Accident Investigation Branch (DAIB).

6.4 Safety Reporting Principles

The principles to report, classify, inform, investigate, evaluate and, if appropriate, enforce are shown below in Figure 8 and are cognisant of NBC Clyde's single event report methodology as detailed in BMS.

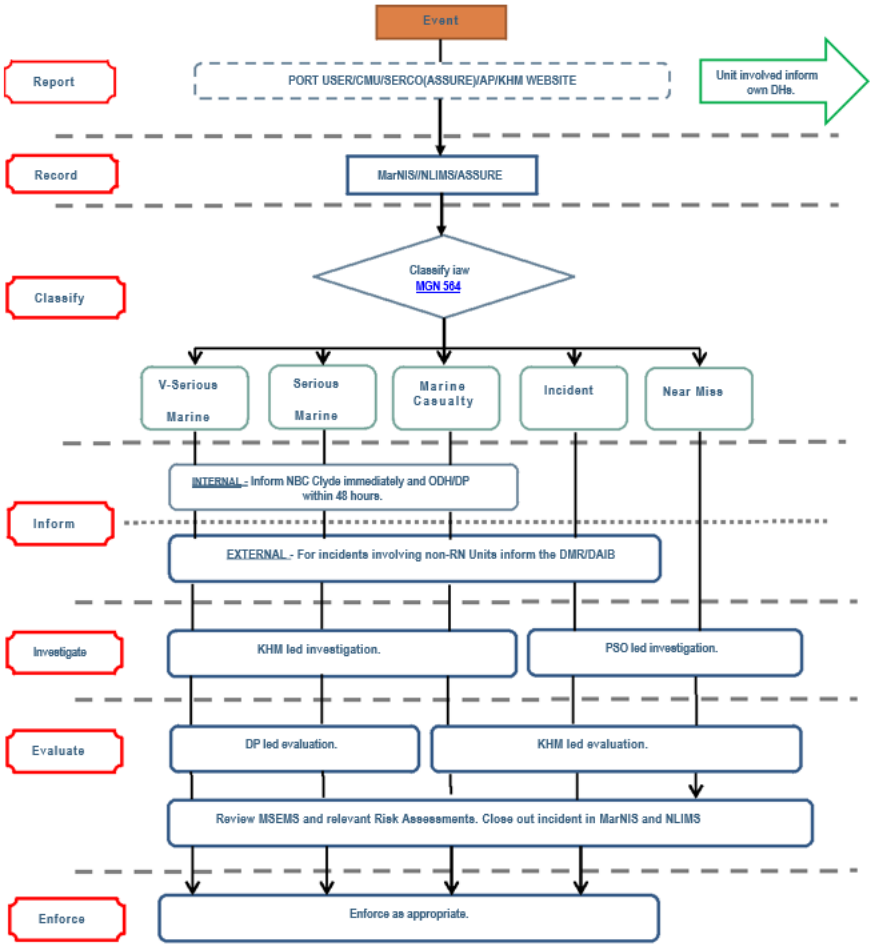

Figure 8 – Safety Event Reporting Methodology

6.4.1 Safety Event Reports

For the purposes of this policy, it is the obligation placed on KHM Clyde to accurately capture and record all incidents that occur within or close to the CDP that have a direct bearing on the Port's MSEMS. These reports can be received by a variety of routes: Naval Lessons Identified Management System (NLIMS) for Naval Service vessels; reports via port staff such as pilots and VTS personnel; reports from other port users such as SERCO, Tug Operators, via '*Assure*'; or via the KHM website.

6.4.2 Safety Event Recording

KHM Clyde will then ensure that one of their team, normally the Port Safety Officer, records the details of the incident in The Navigational Incident database, MarNIS. This holds the details of all reported marine safety incidents and other occurrences that have significance to the maintenance of navigational safety and environmental compliance. Incidents are also recorded on NLIMS and on the Naval Base's single event reporting database. The day-to-day administration of MarNIS is the responsibility of the Port Safety Officer. In particular, the PSO:

- Maintains, administers, and interprets MarNIS to ensure effective support to Port Operations.
- Maintains, administers, and interprets MarNIS to ensure the effective recording, availability and archiving of marine incident information; and,

- Constructs and presents MarNIS information in reports as required and in an effective and appropriate format, such that the overall navigational safety performance of the port may be reviewed and assessed.

For incidents once a record has been initiated, additional information is included in respect of the outcome of KHM's initial regulatory investigation, and subsequently details any follow-up disciplinary action and/or prosecution. KHM's findings and recommendations (if any) of their navigational safety investigation are also recorded in respect of the incident's impact on the MSEMS.

Navigational Incident records also allow effective cross-referencing to the Hazard Management database, thereby prompting and recording an assessment of the hazard(s) and associated risk control measures relevant to a particular incident.

6.4.3 Safety Event Classification

The Dockyard Ports Board in Sep 15 decided that Dockyard Ports are to adopt and follow the reporting and investigation requirements of the 2012 Regulations and for ease, should adhere to the detail stated in MGN 564, for all waterborne incidents and near misses. These classifications are detailed below and reproduced in detail at Annex A. Accidents are classified as '*marine casualties*' or '*marine incidents*'.

6.4.4 Safety Event Notification

6.4.4.1 Internal to the CDP

Following a safety event internal to the Clyde Dockyard Port, KHM should notify the Port Duty Holder and regulators as follows in Table 2 below, or in any additional circumstance that KHM Clyde considers necessary.

CLASSIFICATION	PARTY	TIMELINE
Very Serious Marine Casualty	NBC	<12 Hours
	DirSM, DP, DMR & DAIB	<24 Hours
Serious Marine Casualty	NBC	<24 Hours
	DirSM, DP, DMR & DAIB	<48 Hours
Lesser Marine Casualty	NBC	<48 Hours
	DirSM, DP, DMR	As deemed appropriate by NBC
Incident	NBC	Monthly
	DirSM, DP, DMR	As deemed appropriate by NBC

Table 3 – Post-Event Notification Requirements

6.4.4.2 External to the CDP

A safety event shall be considered to be external to the CDP if the incident involves:

- Only RN Vessels.
- An RN Vessel and a Non-RN Vessel.
- Non-RN Warship.
- Non-RN Vessels.

Should the incident only involve Royal Navy (RN) vessels, KHM should inform the unit's Flotilla (unit DDH) all safety events classified as marine casualty and above. There is no requirement for KHM to notify MAIB or MCA as RN vessels do not come within the meaning of "any United Kingdom ship".

In the case of an incident between an RN and a non-RN vessel, in addition to reporting the incident to the unit's Flotilla (DDH), the RN-MCA MoU applies. The agreement for the RN reporting accidents involving RN ship, aircraft or personnel to the MCA is if an occurrence results in:

- Loss of life, serious injury, loss overboard of personnel on another vessel.
- Material damage to (by whatever cause), disablement, abandonment, grounding of another vessel. Significant environmental damage as a result of damage to another vessel.

If the criteria above are met, the MAIB should receive an initial notification about it from Naval Safety Incident Notification Cell (NSINC) (under the Principles of Co-operation), KHM and from the Master of the other vessel.

Should an incident occur within a CDP that involves a foreign warship that is undergoing FOST training, the KHM Port Safety Officer (PSO) should inform the FOST liaison officer. If the foreign warship is not attached to FOST, then liaison would occur through the nominated Flotilla Ship's Visit Officer.

Irrespective of whether the incident meets the threshold for reporting to the MCA/DAIB/MAIB, if the incident involves a contracted provider of port services (e.g., Serco) then the PSO, when aware of an incident, should inform the contractor's safety officer. If the PSO is aware of an incident that involves one or more other commercial port users, and they have been notified by one of the parties, they should also inform the other ships involved that they have had such a notification. If the incident is MAIB-reportable then the PSO must notify the MAIB as soon as possible.

6.5 Investigations

Having recorded and classified the information the next stage of the process is to conduct an investigation and decide at what level it should be at and who should conduct it.

6.5.1 PSO-led Investigations

Most incidents will be resolved by an independent PSO led investigation and analysis of the incident. This will require the PSO to gather the data necessary from Harbour Control to complete MarNIS. Where necessary the additional information should be requested from units involved establishing the causes. The essential facts recorded in MarNIS, or the port's database should include the following information:

- Time, date, and location.
- Incident type and generic information.
- Ship information (information of all vessels involved)
- Accident specifics (weather, casualty details, pilot/PEC details, damage/pollution, geographical position etc.)
- Accident/incident narrative (free text)

- Analysis of the cause and consequence, or in the case of a near miss, potential consequence.
- Action required & DAIB reporting.

In most incidents, the details above will be sufficient to allow the PSO to conduct the necessary analysis to determine the primary and secondary cause and the recommended action required. However, even so where the potential consequence of an incident could have resulted in a marine casualty KHM may decide that a more formal investigation may be appropriate.

6.5.2 KHM-led Investigations

A KHM-led investigation may be appropriate where a more comprehensive investigation and analysis is required to establish and analyse the facts reach conclusions as to the cause and the necessary actions that need to be taken. Action should also be taken to preserve and gather evidence (recordings, logs, charts VTMIS recordings, orders or other appropriate paperwork and photographs). They may also be required to interview witnesses. Further guidance on compiling the report can be found in BRd 172 Chapter 6.

6.5.3 Police Investigations

There will be occasions, particularly those involving a death, when the local Police may commence a formal criminal inquiry into a particular incident. In this case, whilst the port should do everything to support such as such an investigation, by providing the supporting evidence, the fact that the police investigation is underway does not relieve the port of the need to investigate the incident to establish if any action is required by the Port to amend its safety management system or operating procedure to prevent a re-occurrence.

6.5.4 DAIB Investigations

The Defence Accident Investigation Branch (DAIB) provides Defence with an independent, multi-modal accident and incident investigation capability. Able to deploy worldwide, the DAIB is on standby 24/7 to conduct impartial and expert no-blame safety investigations across the air, land, and maritime domains. The DAIB also provide unified tracking of all DSA safety investigation recommendations through to closure. Following rationalisation of its sites the DAIB is now established at a single location within MOD Boscombe Down. The DAIB will investigate any accident that causes entire or partial disablement of a ship or submarine for service, e.g., collision, grounding, explosion, serious fire, or serious flood.

6.5.5 MAIB Notification and Investigation

The MAIB, through the DAIB will be informed of every accident (within the meaning of the Merchant Shipping (Accident Reporting and Investigation) Regulations) involving a MOD ship, other than a ship of His Majesty's Navy, on non-commercial service. For MOD ships that are registered, this requirement is mandatory under merchant shipping legislation. In the case of an accident involving an RFA, PMS or RSACT vessels, in addition to any investigation or preliminary assessment the Accountable Person will commission an appropriate level investigation if the incident occurs when no other vessel other than a warship or MOD ship is involved. The report will be made available to the MAIB, edited as appropriate to remove any items.

6.5.6 Neighbouring Harbour Authority/Other Marine Service Provider

In some cases, it may be most appropriate for a neighbouring Harbour Authorities or Marine Service Provider to undertake a local investigation for subsequent evaluation by KHM staff.

6.5.7 Investigation Process

The detailed investigation process is covered in Part B of the MSEMS

7.0 COMPETENCY AND TRAINING

7.1 Introduction

Training and the competency of Port Personnel is a key element within the MSEMS, and the CDP Training Policy is at Annex H. In summary the policy is designed to ensure that personnel are properly trained to operate a safe and compliant port. The principles of job analysis and training design are followed & training requirements are reflected in personnel TORs.

- Identify operational and safety training needs.
- Establish a skills matrix of competency levels required for key tasks (Annex H).
- Plan how training requirements are to be met and when.
- Establish a process to appraise the effectiveness of training; and
- Is underpinned by a broad programme of mandated training within HMNB Clyde.

7.2 Training of Admiralty Pilots

Responsibility for the development, provision, and maintenance of the training of Admiralty Pilots and Pilot Exemption Certificate Holders has been delegated by KHM Clyde to the Port Operations Manager (POM). This training is conducted iaw the Admiralty Pilot Handbook. Check trips for remote locations will be arranged by the POM to ensure all APs maintain currency for berths infrequently visited.

7.3 Induction Training

KHM Clyde's induction training methodology and directive is at Annex I. This method ensures all new Port Operations personnel are inducted into the safe and compliant way the CDP operates and covers the following subjects:

- Individual Role and Responsibilities.
- Departmental Organisation.
- Building and Naval Base Health and Safety Organisation and Security Organisation.
- Training.
- The Documentary Business Management System.
- MSEMS, DSA-02 Maritime Regulations and The Port Marine Safety Code.
- The Nuclear Site Safety Case.
- FLOOs.
- General Directions.

7.4 Training and Competence Records

All training and instruction provided to employees will be reported to Line Managers and recorded in MyHR, KHM Clyde's Port Status Report and in the KHM Training Matrix.

8.0 ASSURANCE AUDITS AND REPORTING

8.1 Introduction

The assurance process of the MSEMS requires an assessment of continuous development and improvement and its responsiveness to events and changing circumstances. To comply with the requirements of the PMSC and DSA-02 Maritime Regulations for HS&EP, the CDP will ensure appropriate internal and external assurance checks of the MSEMS are undertaken at appropriate periods. This will include audits or reviews undertaken by the appointed 'Designated Person'.

8.2 Assurance Objectives

Assurance is a system of checking against a standard to give confidence that activities meet the requirement. It is not restricted to audits and includes activity such as:

- Compliance with legislation, regulation, and policy
- Risk Management
- Performance management
- Occurrence reporting and analysis.
- Workplace inspections
- Peer Reviews, benchmarking and Independent Safety and Environmental Audits (ISEAs)
- Monitoring competencies

8.2.1 Independent Assurance Audits/Reviews by the Designated Person

The 'Designated Person' shall undertake second party assurance (2PA) of the MSEMS for the purpose of assessing the following as stated in paragraph 2.3:

- The continued provision of an appropriate and effective MSEMS; and,
- The CDP's on-going, overall compliance with the requirements of the Port Marine Safety Code and DSA-02 Maritime Regulations.

8.2.2 Ongoing Internal Reviews

First party assurance of the MSEMS performance is conducted in line with the 1PA Plan on the KHM Port Status Report, to ensure the continuing maturity of the MSEMS and supporting documentation to ensure agreed compliance measures for the PMSC and DSA02 Maritime Regulations are being maintained.

8.2.3 Review of relevant external information

The CDP receives copies of each published MAIB Safety Digest. DKHM Clyde and the POM review each issue to identify any reported incidents, which impact or have the potential to impact upon the CDP's MSEMS. All such incident summaries are then circulated to all relevant marine stakeholders for information/action, and where appropriate, considered formally by KHM with a view to taking any necessary action, including the promulgation of any lessons learned or identifying any new hazard.

8.3 Assurance Audit Process

8.3.1 Assurance Levels

First Party Assurance (1PA)

- 1PA is an internal self-check conducted in accordance with the 1PA Plan on the Port Status Report.

Second Party Assurance (2PA)

- 2PA is conducted as required by the DP, Captain Port Operations.

Third Party Assurance (3PA)

- 3PA is fully independent of the chain of command/accountability. It can be provided internally by Defence Regulators or externally by statutory regulators, classification societies or certification bodies.

The outcome from all 2PA or 3PA will be communicated by NBC Clyde to DirSM. How this is achieved will depend on the seriousness and severity of any non-conformances identified. Any relevant safety risks and associated response plans should be reviewed, updated, and briefed accordingly.

8.4 Assurance Audit Methodology

Audit methodology differs between external and internal authorities. The tables below show the different descriptors. KHM Clyde follows the process in BMS for audit findings for both internal and external audits. Audit findings are recorded in the Port Status Report. Progress and completion is reported at the Vessel Output Board, MOD Board and to the Duty Holder.

External Audit (Port Operations (Compliance and Assurance)) Gradings	
Grading	**Definition**
Full Assurance	An established system of internal control that is operating effectively resulting in full compliance with the PMSC and DMRegs.
Substantial Assurance	An established system of internal control that is operating effectively with some minor areas of non-compliance with the PMSC and DMRegs.
Limited Assurance	A system of internal control is operating effectively except for areas where major non-compliance with the PMSC and DMRegs have been identified.
No Assurance	A system of internal control has been poorly developed or non-existent, or systemic and multiple areas of major non-compliance have been identified.
External Audit (Port Operations (Compliance and Assurance)) Degrees of Non-Compliance	
Observation (Obs)	A statement of fact made during an audit and substantiated by objective evidence. It may also be a statement made by the auditor referring to a weakness or potential deficiency in the MSEMS which, if not corrected, may lead to a nonconformity in the future.
Non-Conformance (NC)	An observed situation where objective evidence indicates the non-fulfilment of a specified requirement of the DMRegs, PMSC or accompanying GtGP.
Major Non-Conformance (MNC)	An identifiable deviation that poses a serious threat to the safety of personnel, the port, marine facility, or its users (including relevant stakeholders) or a serious risk to the environment that requires immediate corrective action and includes the lack of effective and systematic implementation of a requirement of the DMRegs, PMSC or accompanying GtGP.

Table 4 – External Audit Gradings

Clyde Dockyard Port Marine Safety & Environmental Management System (CDP MSEMS) Annexes

ANNEX A – Navigational Safety Policy

ANNEX B – VTS Policy

ANNEX C – Pilotage Policy

ANNEX D – Enforcement Policy

ANNEX E – Consultation Policy

ANNEX F – Environmental Policy

ANNEX G – Training Policy

ANNEX H – Definition of Marine Accident, Serious Injury and Severe Pollution

ANNEX I – Glossary of Abbreviations and Terms

ANNEX J – List of References

ANNEX A – NAVIGATIONAL SAFETY POLICY

The Ministry of Defence has a primary responsibility to facilitate the safety of navigation within the Dockyard Port of Clyde.

To this end, it is Ministry of Defence policy for KHM (Clyde) to:

1. Establish, fund, and maintain an effective Navigational Safety Management System, based on a continuing, formalised assessment and mitigation of risk in consultation with navigational users.

2. Review regularly (no more than triennially) the effectiveness of, and if necessary, seek amendments to, its legal powers, Orders in Council and Directions in respect of navigational safety.

3. Maintain a formal Policy towards the provision of Vessel Traffic Services, its interface with port harbour traffic, and periodically review management of the navigation of vessels within the port jurisdiction.

4. Regularly review towage capability to determine that it remains appropriate to the levels of service required in the port.

5. Facilitate, with the Clyde Marine Unit, an appropriate patrol service for the Clyde Dockyard Port proportionate to navigational use.

6. Maintain, and regularly review, a formal Policy towards Enforcement.

7. Conserve the Clyde Dockyard Port so that it is fit for use as a port, and in a fit condition for a vessel to resort to it including:

   a. Provide such aids to navigation as are necessary for safe and efficient navigation within port limits.

   b. Maintain close liaison with the owners of other aids to navigation for which KHM does not have maintenance responsibility.

   c. Undertake or require such Hydrographic surveys as are necessary for safe and efficient navigation within port limits.

   d. Maintain oversight of any changes in hydrology affecting the depth of water within channels.

   e. Maintain records of all Hydrographic and hydrological reports.

   f. Supply the UK Hydrographic Office with information that may be needed for publication on official charts.

   g. Provide regular returns and other information in relation to aids to navigation as the General Lighthouse Authority may require.

8. Assess and where necessary require removal of sunken or derelict or abandoned vessels and other obstructions that are, or may become, an impediment to safe navigation.

9. Make available relevant navigational information to all harbour users.

10. Maintain liaison with harbour stakeholders and seek input as required on matters influencing navigational safety.

11. Provide professional advice in the planning process for any form of development affecting navigational safety within the Clyde Dockyard Port jurisdiction.

12. Be empowered to:

a. Regulate the time and manner of ships' entry to, departure from and movements within the Clyde Dockyard Port.

b. Require the owner or master of a ship to provide information about the vessel, cargo, and its passage.

13. Delegate powers of direction to the Deputy King's Harbour Master or any other person designated for the purpose.

ANNEX B – VTS POLICY

To provide for safe navigation in The Clyde Dockyard Port, KHM, in implementing the risk control measures outlined in the Risk Assessment, has a commitment to provide (in accordance with The IALA Standards for Training and Certification of Vessel Traffic Service (VTS) personnel (IMO MSC Circa 952)) a Local Port Service (LPS) and, where required, a Traffic Organisation Service (TOS) by the VTS. The provision of a Navigational Assistance Service (NAS) is not available. The service is not formally declared to the MCA.

To this end it is Ministry of Defence policy that KHM (Clyde) intends to:

1. Operate a partial VTS to support its published Navigational Safety Policy.
2. Monitor all commercial movements and maintain VHF communications with such vessels.
3. Ensure that the VTS is appropriately equipped to allow a continuation of essential services in the event of failure of either hardware or software.
4. Immediately inform all users of any temporary reduction in service and/or coverage.
5. Regularly review the performance of the system and seek improvements through technical enhancement, staff development, training, and effective management as necessary.
6. Provide timely navigational information and advice as required.
7. Assist Category 1 responders (Emergency Services and local councils) in respect of the harbour response to emergency incidents within the harbour jurisdiction.
8. Adopt a local training programme and facilitate Continued Professional Development.
9. Formally authorise all personnel serving in the VTS.
10. Record all relevant radar and VHF communications as an aid to enforcement and incident reconstruction and investigation.
11. Maintain a narrative of vessel movements, harbour operations and any incidents within the Port limits.

ANNEX C – PILOTAGE POLICY

The Competent Harbour Authority is responsible for the pilotage of non-military ships within the Clyde Pilotage District (which includes the Clyde Dockyard Port) whereas KHM is responsible for the pilotage of Government Ships within the Clyde Dockyard Port. The Competent Harbour Authority and KHM policy in respect of pilotage is to:

1. Ensure that the operation of the pilotage service is compliant with national regulations and guidelines.

2. Monitor to ensure there is an appropriate level and competence of the pilotage service in accordance with the Pilotage Act 1987.

3. Develop and keep under review Pilotage Directions to ensure that the risks associated with the Clyde Dockyard Port are managed in accordance with the needs of the MSEMS.

4. Develop and maintain a formal interface between Harbour Control and both the COL Pilotage Service and Admiralty Pilotage Service.

5. Administer the Pilotage Exemption Certificate monitoring system to ensure that all Pilotage Exemption Certificate applicants and holders fully meet the requirements laid down in the Pilotage Directions.

6. Ensure close liaison between the COL Pilotage Service and the Admiralty Pilotage Service to ensure that the Pilotage Policies and practice of the two organisations are mutually supportive.

7. Ensure that a Memorandum of Understanding or contract is in place to cover the relationship between the Competent Harbour Authority and KHM, within the CHA area of jurisdiction for the delivery of pilotage services to the Clyde Dockyard Port.

ANNEX D – ENFORCEMENT POLICY

KHM Clyde, the Harbour Authority, is empowered to investigate and prosecute offenders for breaches of Orders in Council or Directions made under the Dockyard Ports Regulation Act 1865 or the Clyde Dockyard Port of Gareloch and Loch Long Order 2011.

This document sets out what port users and others being regulated by KHM can expect from enforcement officers. It commits us to good enforcement policies and procedures. It may be supplemented by additional statements of enforcement policy.

The effectiveness of legislation in protecting the port and its users depends crucially on the compliance of those regulated. KHM recognises that most port users wish to comply with the law and will therefore, take care to help port users meet their legal obligations without unnecessary expense, while taking firm action, including prosecution where appropriate, against those who flout the law or act irresponsibly. All port users will reap the benefits of this policy through better information, choice, and safety.

KHM believes that prevention is better than cure and that our role therefore involves actively working with port users, especially small vessel operators to advise on and assist with compliance. A courteous and efficient service will be provided, and harbour staff will identify themselves by name. The Authority will provide a contact point which is available on the KHM website (https://www.royalnavy.mod.uk/KHM/clyde) for further dealings with the harbour and will encourage port users to seek advice/information. Applications for approval of events, diving etc., within CDP will be dealt with efficiently and promptly. The Authority will ensure that, wherever practicable, the enforcement services are effectively co-ordinated to minimise unnecessary overlaps and time delays.

KHM will take particular care to work with small businesses and voluntary and community organisations so that they can meet their legal obligations without unnecessary expense, where practicable.

Furthermore, it is Ministry of Defence policy that the KHM shall:

1. Develop and maintain effective enforcement based on a continuing review of relevant legislation.

2. Ensure all staff directly involved in enforcement is appropriately trained in and fulfil the requirements of, amongst others, the Scottish Legal System.

3. Facilitate a harbour patrol service for Clyde Dockyard Port.

4. Maintain an effective surveillance regime in conformance with the Regulation of Investigatory Powers Act 2000.

5. Monitor compliance with and detect breaches of Orders in Council and Directions.

6. Investigate all alleged breaches of Orders in Council and Directions.

7. Maintain records of all investigations in conformance with relevant Harbour requirements.

8. Where appropriate, work with and inform other relevant Authorities of investigations.

9. Respond to breaches of Orders in Council and Directions, as justified by the evidence and other circumstances, using formal warnings, infringement notices and prosecution.

10. Records relating to safety investigations should be held for a minimum period of 3 years.

11. Breaches of port regulations will in the first case, and if appropriate, follow the broad guidelines below:

a. First instance of a breach – verbal warning.
b. Second instance of a breach – formal written warning.
c. Third instance of a breach – prosecution using the most appropriate legal tool available

ANNEX E – CONSULTATION POLICY

The Port Marine Safety Code emphasises the importance of effective consultation by all navigational stakeholders. This includes all those who work in the environs of the Clyde Dockyard Port or use the waterway in some form, as well as those that represent them.

KHM will provide information and advice in plain language on the rules that they apply and will disseminate this as widely as possible. KHM will be open about how they set about their work, including any charges that are set, consulting relevant authorities, business, voluntary organisations, charities, consumers, and workforce representatives. KHM will discuss general issues, specific compliance failures or problems with anyone experiencing difficulties.

KHM shall:

1. Consult as early as is practicable with stakeholders when changes to Orders in Council and / or Policy are being considered.

2. Maintain an effective consultation mechanism with appropriate stakeholders on navigational safety and other operational issues.

3. Include appropriate Clyde Dockyard Port stakeholders in the on-going work to identify navigational hazards, assess the risk of such hazards and recommend appropriate control and mitigation measures.

4. Promulgate an Annual Port Report.

ANNEX F – ENVIRONMENTAL POLICY

KHM Clyde recognises that the Clyde Dockyard Port plays an important part in the economic, environmental, and social life of surrounding communities.

The combination of these three elements allows KHM to exercise responsibility by promoting sustainable development for the benefit of the business and of the people linked with its Port.

KHM Clyde is committed to develop and implement management and control methods which prevent or minimise environment damage. These methods will be regularly reviewed to ensure that KHM continuously improves its environmental performance.

KHM Clyde recognises the value of communicating these objectives to employees, partners and other people linked to its Port, and is committed to a programme of regular discussions about its approach to securing a high standard of environmental management.

ANNEX G – TRAINING POLICY

KHM Clyde recognises that training is fundamental to continuing safe, efficient, and compliant operation. Responsibility for training rests with management and supervision is essential to help achieve its objective. KHM Clyde will develop its human resources by a systematic approach applicable to its requirement and under the following specific aims. Training requirements are stated in each roles TORs.

KHM Clyde's policy in respect to training is to:

1. Provide induction training for all new employees.

2. Foster a regular discussion between management and employees concerning the employee's progress in the job and aims for the future in accordance with the performance review and, determine future training needs resulting from such discussions.

3. Provide adequate and appropriate training before and after all promotions and transfers to all employees to allow them to reach the required level of competence, as specified in the job description and detailed in the post specific training matrix at Annex J.

ANNEX H – DEFINITION OF MARINE ACCIDENT, SERIOUS INJURY AND SEVERE POLLUTION

The CDP are to adhere to the detail and classifications detailed within MGN 564 for all waterborne incidents and near misses that occur within the CDP. Accidents are classified as 'marine casualties' or 'marine incidents. Accidents may be classified (in order of severity) as follows: very serious marine casualties, serious marine casualties, and marine incidents.

A marine casualty is an event or sequence of events that has resulted in any of the following and has occurred directly by or in connection with the operation of a ship involving-

(1) the death of, or serious injury to, a person.

(2) the loss of a person from a ship.

(3) the loss, presumed loss or abandonment of a ship.

(4) material damage to a ship.

(5) the stranding or disabling of a ship, or the involvement of a ship in a collision.

(6) material damage to marine infrastructure external of a ship, that could seriously endanger the safety of the ship, another ship, or any individual, or

(7) pollution, or the potential for such pollution to the environment caused by damage to a ship or ships.

A serious marine casualty is an event or sequence of events that has resulted in any of the following and has occurred directly by or in connection with the operation of a ship but does not qualify as a very serious marine casualty that involves:

(1) fire.

(2) explosion.

(3) collision.

(4) grounding.

(5) contact.

(6) heavy weather damage, or

(7) ice damage, or a suspected hull defect.

resulting in any of the following-

(1) the immobilisation of the main engines.

(2) extensive accommodation damage.

(3) severe structural damage including penetration of the hull under water rendering the ship unfit to process.

(4) pollution, or

(5) a breakdown that necessitates towage or shore assistance.

A very serious marine casualty is an event or sequence of events that has resulted in any of the following and has occurred directly by or in connection with the operation of a ship-

(1) the total loss of a ship

(2) loss of life

(3) severe pollution

A marine incident is an event or sequence of events other than those listed above which has occurred directly in connection with the operation of a ship that endangered, or if not corrected would endanger the safety of a ship, its occupants or any other person or the environment. 'Near misses' are marine incidents.

The definition of a serious injury is:

(1) any fracture, other than to a finger, thumb, or toe.

(2) any loss of a limb or part of a limb.

(3) dislocation of the shoulder, hip, knee, or spine.

(4) loss of sight, whether temporary or permanent;
penetrating injury to the eye.

(5) any injury to a person employed or carried in a ship which occurs on board or during access which results in incapacitation for more than three consecutive days excluding the day of the accident, or any other injury leading to hypothermia, unconsciousness, requires resuscitation or requiring admittance to a hospital or other medical facility as an in-patient for more than 24 hours.

The definition of severe pollution is a case of pollution which, as evaluated by the coastal State(s) affected or the flag State, as appropriate, produces a major deleterious effect upon the environment, or which would have produced such an effect without preventative action.

Pleasure vessels/recreational craft: Accidents and incidents on pleasure vessels, recreational craft hired on a bareboat basis or a craft other than one carrying passengers which is in commercial use and is less than 8 metres in length do not need to be reported to the MAIB unless the accident involves one or more of the issues listed below:

(a) explosion.

(b) Fire

(c) Death

(d) Serious injury

(e) Capsize of a power-driven craft or boat

(f) Severe pollution.

Accidents as defined by sub paragraphs a to d above, involving or occurring on board any United Kingdom ship must be reported to the MAIB under the Regulations. The MAIB is required, by law, to carry out investigations for vessels involved in a 'very serious marine casualty'

ANNEX I – GLOSSARY OF ABBREVIATIONS AND TERMS

TERM	DEFINITION
ABP	Associated British Ports
Accountable Person	The individual held accountable by a Statutory or Defence Regulator for reducing risk of harm. The person who is in a position of authority, responsibility, and competence to conduct activity and carry out improvement within an organisation.
Admiralty Pilotage Service	The body established to maintain the supply of suitably qualified pilots for largely military operations
ALARP	As Low As Reasonably Practicable
ALRS	Admiralty List of Radio Signals
APHCSH	Admiralty Pilotage and Harbour Control Service Handbook
Category 1 Responder	A Category 1 responder is anybody in the UK that has specific duties as determined under the Civil Contingencies Act (2004)
Category 2 Responder	Category 2 responders are those who have a role in supporting Category 1 responders in their duties under the Civil Contingencies Act (2004)
CHA	Competent Harbour Authority
Delivery Duty Holder (DDH)	Within the *Duty Holding* construct, the Delivery Duty Holder (DDH) is appointed and empowered by the *Senior Duty Holder* (SDH) through a letter of delegation. The person charged by an ODH with the integration of risk assurance across DLODs, to enable the safe administration and operation of MOD Regulated Shipping, Ports, Harbours, or Diving. The DDH provides assurance of the effective implementation of the Operating Duty Holder's overarching Health, Safety and Environmental management system(s)
DAIB	Defence Accident Investigation Branch
Declared Asset	A specific asset forming part of the declared facilities whose availability is secured through (e.g.) an appropriate agreement with the owner / operator
Declared Facilities	The facilities declared to be available for emergency management in a port
Designated Person	A person nominated by the Port Duty Holder to provide independent assurance regarding the

	operation of the MOD Port's Safety and Environmental Management System
DfT	Department for Transport
DMR	Defence Maritime Regulator is part of the Defence Safety Authority (DSA) and is the Defence Regulator responsible for the regulation of HS&EP in the defence maritime domain.
DMS	Defence Marine Services
Dockyard	A geographical area of a naval harbour with a gate or caisson under control of an accountable person vested powers or duties for improving, maintaining, or managing a harbour, as a Statutory or Competent Harbour Authority or under the 1865 Dockyard Ports Regulation Act or Bill of a UK dependency.
Duly Authorised Person (DAP) or Organisation (DAO)	A person or organisation, internal to the Ministry of Defence that demonstrates competence, accredited to provide second party assurance of the conduct of an activity to a Duty Holder and considered by the Regulator to significantly affect the safety or environmental protection of MOD Shipping activities, as responsibilities go beyond their normal managerial duties or across line responsibilities (e.g. being charged with audit, overseeing, accepting test and trials, conducting surveys and inspections to certify).
DPRA 1865	1865 Dockyard Ports Regulation Act
Duty Holder	In accordance with DSA01.1, a key person appointed by the Secretary of State to discharge a duty of care for complex Maritime Capability such that others do not suffer unreasonable harm or loss from Defence activity. The Duty Holder will be an accountable person (AP) with sufficient control to supervise operations significantly affecting the safety or environmental protection of MOD Shipping activities with responsibility and accountability beyond normal managerial duties that cross line management responsibilities, e.g., DLODs.
Duty Holding	A Harbour Master is an official responsible for enforcing the regulations of a particular harbour or port, to ensure the safety of navigation, the security of the harbour and the correct operation of the port facilities.
EMP	Emergency Management Plan
FLOOs	Fleet Operating Orders
FOST	Flag Officer Sea Training
FOT	Finnart Ocean Terminal
General Direction	A direction (regulation) issued by an authorised Harbour Authority in relation to port operations applicable to all persons operating within the Port Limits

Harbour	Except where used with reference to a local lighthouse authority, means any harbour, whether natural or artificial, and any port, haven, estuary, tidal or other river or inland waterway navigated by sea-going ships, and includes a dock, and a wharf.
Harbour Authority	Means any person in whom are vested powers or duties of improving, maintaining, or managing a harbour.
Harbour Master	Harbour authority (normally a person) with overall responsibility for navigational safety in port limits
Harm	Death, physical injury, or damage to the health of people, or damage to property or the environment
Hazard	Potential to cause harm e.g. A physical situation or state of a system, often following from some initiating event that may lead to an accident
HAZID	Hazard Identification
HAZMAT	Hazardous Materials
IALA	International Association of Lighthouse Authorities
IMO	International Maritime Organization
Jetty	A landing stage or small pier at which a vessel can dock or be moored to load or unload.
KHM	King's Harbour Master
MAIB	Marine Accident Investigation Branch
Marina	A specially designed harbour with moorings for pleasure craft and other vessels.
MCA	Maritime and Coastguard Agency
MGN	Marine Guidance Note
Military Ship	'Military ship' means: • A ship of war, of any nationality. • A fleet auxiliary, of any nationality. A ship operating under a demise charter to the MoD; and A ship operating to or from, or a ship under MoD contract operating in the waters surrounding, any docks or any wharves, piers, jetties, or moorings belonging to the MoD.
MOD Port Duty Holder	Accountable Person, appointed by Letter of Authority (LOA) with responsibility for the safe and environmentally sound operation of the MOD Port, and of all conduct within the MOD Port.
MOD Ports and Harbours	A MoD Port or Harbour described in The Dockyard and Ports Regulation Act 1865 and the UK Dockyard Ports and

	the associated UK or Overseas territory Port Orders or Statute. Also, a Maritime base operated by or on behalf of the MOD as one of His Majesty's Naval Bases (HMNB); Mounting Centres; Permanent Joint Operating Bases (PJOB). A base harbour is a place on the coast where ships may moor in shelter, with protection from rough water by artificial structures. A base port is within a harbour offering access to navigable water where ships load or unload using piers, jetties, and other artificial structures. A base dockyard is a port with maintenance facilities. A base shipyard is a port with facilities permitting the construction of new vessels.
MoU	Memorandum of Understanding
MSN	Merchant Shipping Notice
MSS	Marine Services Superintendent
NAS	Navigational Assistance Service
NATO	North Atlantic Treaty Organization
NBC	Naval Base Commander
Operational Duty Holder (ODH)	Within the *Duty Holding* construct, the Operational Duty Holder (ODH) is appointed and empowered by the *Senior Duty Holder* (SDH) through a letter of delegation. The ODH is the person charged with the overall safe administration and employment of complex Maritime Capability at the operational level such that it is operated safely and is environmentally sound. The ODH sits in the middle of the Duty Holder management arrangements identified in Top Level MOD safety policy.
Pilotage Exemption Certificate	Certificate issued to the master or mate of a ship to demonstrate that that person has equivalent competence to that of a harbour pilot. Normally restricted to operations on a particular ship, to a particular berth, and limits in relation to the environment.
Pilotage Direction	A direction (regulation) issued by a Harbour Authority detailing the pilotage requirements for operations within its pilotage limits
Pilotage Limit	The extent of the jurisdiction of a Harbour Authority, as may be extended by Order
Port	A maritime facility consisting of multiple wharves, quays or jetties for the loading and unloading of vessels.
Port Authority	An Agency with powers to maintain and control a port
Regulation	A rule or directive made and maintained by an authority

Regulator	An agency that ensures compliance with laws, regulations, and established rules. (May be MOD or civilian). Regulation, assurance, and enforcement are the activities conducted by all regulators. Defence is required to comply with UK HS&EP statutory requirements and is regulated by statutory bodies such as HSE, EA etc. However, where Defence benefits from dis-applications, exemptions, and derogations (DEDs) from statutory HS&EP requirements, DSA is required to have in place Defence Regulators to provide regulation, assurance, and enforcement in order to comply with the SoS's Policy Statement.
Risk	A combination of the probability, or frequency, of occurrence of a defined hazard and the magnitude of the consequences of the occurrence.
Risk Management	The process whereby decisions are made to accept a known or assessed risk and/or the implementation of actions to reduce the consequences or probability of occurrence.
Safe	Risk has been demonstrated to have been reduced to a level that is broadly acceptable or tolerable and ALARP, and relevant prescriptive Safety Requirements have been met, for a system in each application in a given operating environment
Safety Management	The application of organisational and management principles to achieve safety with high confidence.
Safety Management System	The organisational structure, processes, procedures, and methodologies that enable the direction and control of the activities necessary to meet safety policy objectives and environmental compliance.
Safety Requirement	A requirement that, once met, contributes to the safety of the system or the evidence of the safety of the system
SHA	Statutory Harbour Authority
SOLAS	The International Convention for the Safety of Life at Sea
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
UKHO	United Kingdom Hydrographic Office
VHF	Very High Frequency
VHF Communication	Voice communications utilising the internationally designed maritime mobile VHF channels
VTS	Vessel Traffic Service

ANNEX J – LIST OF REFERENCES

Admiralty South West Coast of Scotland Pilot Sailing Directions (NP66A)
BRd 172 (Guide to the Conduct of Unit Investigations) Chapter 6
BRd 2
BRd 9424 (2)(Fleet Local Operational Orders (Clyde))
Clyde Dockyard Port of Gareloch and Loch Long Order 2011
Defence Maritime Regulations for Health, Safety and Environmental Protection
Dockyard Port Regulation Act 1865
Faslane, Coulport and Rhu Narrows Byelaws 1986
Harbours (Scotland) Act 2015
Harbours Act 1964
HSE(C)-ARR-034
IALA Standards for Training and Certification of Vessel Traffic Service (VTS) personnel (IMO MSC Circa 952)
IMO Guidelines on Implementation of Effluent Standards and Performance Tests for Sewage Treatment Plants 2012
International Convention for the Prevention of Pollution from Ships
International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (1978)
JSP 286 - Defence Diving Manual
JSP 375
Merchant Shipping (Small Workboats and Pilot Boats) Regulations 1998
MGN 564 (M+F) Am 1 Published March 2019.
MOD and MCA
National Contingency Plan
Pilotage Act 1987
POMSR (Port Nuclear Safety Case)
Port Marine Safety Code
Port Marine Safety Code Guide to Good Practice on Port Marine Operations
Regulation of Investigatory Powers Act 2000
Rhu Narrows Byelaws 1992
Safety of Small Workboat and Pilot Boat Code of Practice
The Merchant Shipping (Accident Reporting and Investigation Regulations 2012)