

Harbour Masters

National Occupational Standards

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Port Skills and Safety

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STANDARDS FOR HARBOUR MASTERS

List of Unit and Element Titles

1 Discharging statutory duties

- 1.1 Facilitating the safe and efficient use of the harbour
- 1.2 Ensuring periodic review of powers conferred by statute, directions and bye-laws
- 1.3 Ensuring compliance with relevant health and safety and employment legislation
- 1.4 Regulating the movement and handling of dangerous and polluting substances within the harbour area
- 1.5 Managing port marine security requirements

2 Managing port marine operations

- 2.1 Assessing marine operational risks
- 2.2 Regulating and monitoring vessel movements
- 2.3 Facilitating safe and efficient management of all marine activities
- 2.4 Investigating marine incidents

3 Managing harbour staff, finances and marine assets

- 3.1 Assessing required manning levels and directing recruitment, training and staff development
- 3.2 Managing staff effectively
- 3.3 Managing financial resources
- 3.4 Managing port marine assets

4 Managing emergencies

- 4.1 Preparing and maintaining emergency plans
- 4.2 Assessing and responding to an emergency

5 Managing the marine environment

- 5.1 Identifying and reviewing the status of the port's physical and ecological marine environmental and conservation features, taking into account relevant issues and regulations
- 5.2 Advising on, implementing and reviewing port marine environmental policy
- 5.3 Assessing and monitoring the environmental impact of port operations and activities
- 5.4 Advising on the impact of port plans or projects on the marine environment, ensuring sustainable development
- 5.5 Ensuring compliance with the port's statutory obligations related to the marine environment, including compliance with statutory and non-statutory Management Schemes

- 6 Managing the provision of the pilotage service**
 - 6.1 Managing the safe and efficient operation of the pilotage service
 - 6.2 Assessing and recommending the authorisation of pilots and the continuing assessment and re-authorisation of pilots
 - 6.3 Administering and regulating the granting and renewal of pilotage exemption certificates

- 7 Communicating with external interests**
 - 7.1 Maintaining effective relations with relevant parties
 - 7.2 Representing the port and providing relevant advice

- 8 Managing the leisure use of the port**
 - 8.1 Managing and regulating recreational facilities and activities
 - 8.2 Licensing commercial and passenger craft and their operators
 - 8.3 Managing relationships with leisure users

- 9 Contributing to the strategic planning process**
 - 9.1 Advising on the development and implementation of port strategic and business plans
 - 9.2 Contributing to project feasibility, development and implementation

GLOSSARY OF TERMS

CHA	Competent Harbour Authority
DSHAR	Dangerous Substances in Harbour Areas Regulations 1987
ISM code	International Safety Management Code
IALA	International Association of Marine Aids to Navigation and Lighthouse Authorities
IALA VTS	International Association of Marine Aids to Navigation and Lighthouse Authorities – Vessel Traffic Services
MAIB	Marine Accident Investigation Branch
MCA	Maritime and Coastguard Agency
OPRC	International Convention on Oil Pollution Preparedness, Response and Co-operation
PEC	Pilotage Exemption Certificates
STCW	International Convention on Standards of Training, Certification and Watchkeeping
VTS	Vessel Traffic Services

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Unit 1 Discharging statutory duties

Unit Summary:

A Harbour Master is appointed by a harbour authority under statutory powers for that purpose. The Harbour Master's powers and duties are determined by the harbour authority's legislation and by various other general instruments. As a senior officer of the authority, the Harbour Master will exercise legal duties and powers, and managerial responsibilities, with the aim of discharging the authority's duty to ensure safety of navigation and to facilitate the safe and efficient use of the harbour by all users. This includes, where appropriate, the shipping and unshipping of goods, the embarking and disembarking of passengers and marine recreational activities.

In discharging the authority's duty to facilitate the safe use of the harbour, the Harbour Master must ensure that channels are surveyed, marked and maintained. The Harbour Master must also ensure, both directly and through other officers of the authority, that a safe operating environment is maintained and that relevant information is promulgated to appropriate people, including the details of any changes, hazards or obstructions that may affect the safety of navigation.

Unit Structure:

- 1 Discharging statutory duties
 - 1.1 Facilitating the safe and efficient use of the harbour
 - 1.2 Ensuring periodic review of powers conferred by statute, directions and bye-laws
 - 1.3 Ensuring compliance with relevant health and safety and employment legislation
 - 1.4 Regulating the movement and handling of dangerous and polluting substances within the harbour area
 - 1.5 Managing port marine security requirements

Essential knowledge

The following areas of knowledge are considered essential for all elements of this unit:

- 1 Areas/limits of jurisdiction
- 48 Port layout and infrastructure

Other areas of knowledge are shown under separate elements.

Element 1.1 Facilitating the safe and efficient use of the harbour

Element summary:

The Harbour Master is required to have a complete understanding of the duties and responsibilities imposed on and by the authority and will need to understand the powers that are available to ensure that port users can operate safely within the harbour.

Harbour authorities have a duty, both at common law and by virtue of the special legislation by which they are created, to ensure that persons using the harbour can do so safely. In discharging this duty they may survey, identify, mark and maintain channels so that craft can navigate safely. They also have the responsibility of marking or removing wrecks. As the officer of the authority with specific responsibility for safety of navigation the Harbour Master must ensure that a safe operating environment is maintained and that any changes, hazards or obstructions within the harbour limits are promulgated to appropriate individuals and organisations. The Harbour Master must also ensure the maintenance of an appropriate and effective safety management system.

Performance Statements:

The following standards must be achieved for a Harbour Master to be considered competent at facilitating the safe and efficient use of the harbour:

1	Appropriate policies that facilitate the safe use of the harbour must be developed and implemented.
2	Appropriate risk assessments of harbour activities must be carried out to ensure that risks to harbour users are reduced to a level as low as reasonably practical.
3	Appropriate action should be taken where harbour users fail to comply with harbour regulations, directions or guidance.
4	The requirements for establishing, marking and maintaining navigational channels, wrecks and obstructions should be clearly identified.
5	Arrangements for monitoring and regulating marine traffic in the harbour should be clearly identified and procedures adopted to fulfil the authority's statutory obligations.
6	If and where available, safe berths should be provided for all vessels and unsafe berths should be properly marked.
7	Hydrographic and navigational information, including details of wrecks, obstructions and other hazards, should be promulgated regularly and effectively to harbour users and other interested parties.
8	The handling and movement of hazardous or polluting cargoes should be strictly controlled.
9	Where appropriate, the issuing of licences should be considered for harbour operations and works, in accordance with local legislation.

Essential knowledge

The following areas of knowledge are considered essential for this element (in addition to those listed for the full unit):

- 2 Berth design
- 3 Buoy types & IALA system of buoyage
- 18 Fendering systems
- 21 Hydrographic information and techniques
- 22 IALA VTS standards
- 35 Mooring policies
- 38 Navigation channels, depths, currents and nav aids
- 40 Passage planning
- 59 Tides and meteorology
- 61 Vessel traffic systems and operating methods
- 62 Theory and use of formal risk assessments

Element 1.2 Ensuring periodic review of powers conferred by statute, directions and bye-laws

Element summary:

The Harbour Master must ensure that appropriate procedures exist to discharge statutory duties. To ensure they remain appropriate and fit for purpose such procedures, along with the powers necessary for their enforcement, must be regularly reviewed.

Performance Statements:

The following standards must be achieved for a Harbour Master to be considered competent at ensuring periodic review of powers conferred by statute, and bye-laws:

1	A close awareness should be maintained of the timing, including expiry dates, of relevant local legislation.
2	Procedures for periodically reviewing powers should be established, to ensure that they remain appropriate and fit for purpose.
3	Appropriate systems should be put in place for relevant internal and external consultation.
4	Any recommended changes to powers conferred by bye-laws or other local legislation should be approved by the appropriate authority and processed according to legislative requirements.

Essential knowledge

The following area of knowledge is considered essential for this element (in addition to those listed for the full unit):

- 26 Local directions and Pilotage Directions

Element 1.3 Ensuring compliance with relevant health and safety and employment legislation

Element summary:

As a senior member of the authority's management team the Harbour Master must be familiar with, and understand, the duties imposed on employers by current safety and employment legislation, as well as the Port Marine Safety Code and other codes of practice. The Harbour Master must ensure that required procedures and systems are in place to discharge these duties and responsibilities.

Performance Statements:

The following standards must be achieved for a Harbour Master to be considered competent at ensuring compliance with relevant health and safety legislation:

1	Clear and written health and safety responsibilities should be established for all marine staff.
2	Staff, including contract workers, should be informed of their health and safety responsibilities and appropriate training and equipment provided.
3	Procedures should be established to ensure that marine staff comply with their health and safety responsibilities and agreement obtained that their responsibilities are clearly appreciated and understood.
4	Clear arrangements should be in place for reporting any deficiencies that may affect the health and safety of others.
5	Appropriate disciplinary action must be taken when marine staff fail to comply with health and safety procedures.
6	Advice on health and safety matters should be promulgated to harbour users, as necessary.

Essential knowledge

The following areas of knowledge are considered essential for this element (in addition to those listed for the full unit):

- 52 Safety management systems and ISM code
- 53 Safety of public and personnel

Element 1.4 Regulating the movement and handling of dangerous and polluting substances within the harbour area

Element summary:

The Harbour Master has powers of prohibition, removal and regulation of any goods which fall under the Dangerous Substances in Harbour Areas Regulations. Vessels carrying such goods must notify the Harbour Master before entering the port and the goods should be appropriately marked. Statutory Harbour Authorities have a responsibility for enforcing Parts II and III and regulations 19, 20 and 32(2) within the harbour area against persons other than itself; this responsibility frequently rests with the Harbour Master.

Performance Statements:

The following standards must be achieved for a Harbour Master to be considered competent at regulating the movement and handling of dangerous and polluting substances within the harbour area:

1	Clear reporting systems should be put in place to track and monitor dangerous and polluting substances.
2	Appropriate systems of inspection and enforcement should be put in place.
3	The handling and transporting of dangerous and/or polluting substances should be monitored carefully, liaising closely with the operations department.
4	Appropriate segregation of dangerous and/or polluting substances should be ensured.
5	Appropriate emergency plans must be implemented.
6	In the event of any incident, any response must be prompt and appropriate.
7	Bunkering operations should be monitored to ensure that they are undertaken in a safe manner and with due regard to the environment.

Essential knowledge

The following area of knowledge is considered essential for this element (in addition to those listed for the full unit):

- 46 Pollution prevention, dispersal and recovery methods

Element 1.5 Managing port marine security requirements

Element summary:

In certain locations and circumstances, responsibility to maintain or oversee security within the port's environs may be delegated to the Harbour Master. To achieve this it may be necessary to employ either direct or contract labour, which will need to be managed effectively if security is to be maintained at the appropriate level.

Performance Statements:

The following standards must be achieved for a Harbour Master to be considered competent at managing port marine security requirements:

1	The marine security requirements of the port must be ascertained.
2	Risks to port personnel and the general public should be assessed.
3	Appropriate security arrangements should be implemented, having regard to current threat assessment levels.
4	Security personnel should be managed so as to provide an effective service.
5	A close awareness of relevant port security legislation should be maintained, including current threat assessment levels.
6	Close liaison should be maintained with the local police force.

Essential knowledge

The following area of knowledge is considered essential for this element (in addition to those listed for the full unit):

- 58 Threat assessment levels
- 62 Theory and use of formal risk assessments

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Unit 2 Managing port marine operations

Unit Summary:

The Harbour Master's primary duty is to facilitate the safe movement, berthing, unberthing and regulation of all vessels using the port. To fulfil that duty it will be necessary for risk assessments of all marine operations to be conducted to ensure that such activities are undertaken safely. In the event of any marine incident, the Harbour Master's duty is to ensure that an investigation into its cause is carried out and to recommend or instigate any corrective or enforcement action.

Unit Structure:

- 2 Managing port marine operations
 - 2.1 Assessing marine operational risks
 - 2.2 Regulating and monitoring vessel movements
 - 2.3 Facilitating safe and efficient management of all marine activities
 - 2.4 Investigating marine incidents

Essential knowledge

The following areas of knowledge are considered essential for all elements of this unit:

- 1 Areas/limits of jurisdiction
- 4 Buoy types and IALA system of buoyage
- 5 Business management techniques and business practices
- 6 Commercial cargo handling/stevedoring
- 11 Duty of care
- 12 Effects of weather, current and tide on vessels
- 21 Hydrographic information and techniques
- 30 MAIB/MCA reporting requirements
- 38 Navigation channels, depths, currents and navaids
- 48 Port layout and infrastructure
- 52 Safety management systems and ISM code
- 59 Tides and meteorology

Other areas of knowledge are shown under separate elements.

Element 2.1 Assessing marine operational risks

Element summary:

The Harbour Master is responsible for implementing marine safety policies through an effective safety management system, which must be monitored and regularly reviewed.

Performance Statements:

The following standards must be achieved for a Harbour Master to be considered competent at assessing marine operational risks:

1	A formal risk assessment should be undertaken to identify risk and measures necessary to provide a safe environment for marine operations.
2	An appropriate and effective safety management system must be implemented and maintained.
3	Marine operations should be conducted in line with the requirements of the Port Marine Safety Code.
4	Safety procedures and controls should be reviewed and updated regularly, in line with operational needs and in any instances where the degree of risk has changed and when any changes occur.
5	A continuous improvement in safety performance should be targeted.
6	Port facilities and marine equipment should be inspected frequently and systematically within a preventative maintenance plan.
7	Reports and timescales for rectifying defects should be provided for any deficiencies found during inspections.

Essential knowledge

The following areas of knowledge are considered essential for this element (in addition to those listed for the full unit):

- 32 Marine insurance
- 62 Theory and use of formal risk assessments

Element 2.2 Regulating and monitoring vessel movements

Element summary:

The responsibility for regulating and monitoring vessel movements rests with the Harbour Master although, dependant upon the size of the harbour and level of vessel activity, the Harbour Master may be assisted in the discharge of his/her duties by other harbour employees. Where such is the case, delegated personnel may issue instructions with the same authority as the Harbour Master, although responsibility for the actions of these employees will rest with the Harbour Master.

Performance Statements:

The following standards must be achieved for a Harbour Master to be considered competent at regulating and monitoring vessel movements:

1	Procedures for regulating vessel movements should be clearly laid down and advised to members of staff and others involved in such operations.
2	All vessel movements should be properly planned to facilitate safe and efficient operations.
3	Responsibilities for monitoring vessel movements should be clearly established and relevant members of staff made aware of the authority's obligations.
4	A system should be implemented to facilitate the recording of vessel movements in the harbour.
5	Relevant details of vessel movements should be disseminated to those who require this information.
6	Close liaison should be established and maintained with other marine service providers.
7	Procedures for regulating vessel movements should be reviewed following any incident or near-miss and also as part of a normal process.

Essential knowledge

The following areas of knowledge are considered essential for this element (in addition to those listed for the full unit):

- 22 IALA VTS standards
- 35 Mooring policies
- 55 Ship towage, tugs and towage procedures
- 61 Vessel traffic systems and operating methods

Element 2.3 Facilitating safe and efficient management of all marine activities

Element summary:

The Harbour Master is normally responsible for the safety of marine-based activities, which may include the operation of locks, berthing and unberthing of vessels, vessel traffic services, pilotage, the use of tugs, dredging, maintenance and other small boat operations. All vessels, equipment and infrastructure for which the Harbour Master is responsible should be operated and maintained in accordance with best practice for the industry.

Performance Statements:

The following standards must be achieved for a Harbour Master to be considered competent at facilitating safe and efficient management of all marine activities:

1	The management of all staff involved with marine activities should be undertaken effectively so as to facilitate safe and efficient operations at all times.
2	An effective system for managing marine staff should be implemented, based on an appraisal of every aspect of the authority's marine operation.
3	Action should be taken to ensure that all craft for which the authority has operational control are manned and operated in accordance with relevant regulations, codes of practice and guidelines.
4	Marine equipment, vessels and infrastructure should be managed effectively to ensure, so far as is reasonably practicable, a safe working environment for all marine staff.
5	Regular liaison should be maintained with fishing and leisure interests.

Essential knowledge

The following areas of knowledge are considered essential for this element (in addition to those listed for the full unit):

- 35 Mooring practices
- 49 Powers of arrest
- 53 Safety of public and personnel
- 54 Seamanship terms and techniques

Element 2.4 Investigating marine incidents

Element summary:

When a marine incident occurs it is the duty of the Harbour Master to initiate an investigation at the earliest opportunity. Where circumstances dictate, the Harbour Master may have to issue special directions to ships using the port or its approaches. The Harbour Master may be required to assist the MAIB or the MCA in the investigation of a marine incident. In certain circumstances the Harbour Master may request that disciplinary or prosecution proceedings be undertaken by the MCA or, alternatively, may decide it to be more appropriate for the harbour authority to take further action. The Harbour Master may also be required to assist the Health and Safety Executive.

Performance Statements:

The following standards must be achieved for a Harbour Master to be considered competent at investigating marine incidents:

1	Clear systems for investigating marine incidents should be laid down, covering both marine safety and regulations.
2	Investigation procedures should be periodically reviewed.
3	In the event of a marine incident, appropriate corrective action should be taken.
4	Where appropriate, disciplinary action may need to be taken.
5	Assistance and co-operation should be provided to external bodies investigating a marine accident.
6	Accurate records of all accidents and incidents should be maintained and reports provided as necessary to the MAIB and/or MCA.
7	Where an accident investigation reveals breach of regulations, consideration should be given to the appropriateness of enforcement action or prosecution.
8	Where appropriate, a well-prepared case for prosecution should be made.

Essential knowledge

The following areas of knowledge are considered essential for this element (in addition to those listed for the full unit):

- 15 Enforcement
- 49 Powers of arrest

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Unit 3 Managing harbour staff, finances and marine assets

Unit Summary:

The Harbour Master may have responsibility for the management of staff, including assistants, pilots, VTS operators, vessel crews, maintenance hands and administrative staff. Having regard to the volume of traffic and the scale of operation the Harbour Master must ensure the availability of a sufficient number of suitably qualified and trained persons for the safe operation of the port. The Harbour Master may also be involved in the recruitment, training and development of such staff.

In addition, the Harbour Master may also be required to manage certain financial resources and other assets of the harbour undertaking.

Unit Structure:

- 3 Managing resources
 - 3.1 Assessing required manning levels and directing recruitment, training and staff development
 - 3.2 Managing staff effectively
 - 3.3 Managing financial resources
 - 3.4 Managing port marine assets

Essential knowledge:

The following areas of knowledge are considered essential for all elements of this unit:

- 5 Business management techniques and business practices
- 7 Commercial trends
- 48 Port layout and infrastructure

Other areas of knowledge are shown under separate elements.

Element 3.1 Assessing required manning levels and directing recruitment, training and staff development

Element summary:

The Harbour Master should take an active role in the selection and recruitment of marine staff and ensure that procedures are in place to provide appropriate training and, where practicable, opportunities for personal development. The responsibility for assessing manning levels will rest with the Harbour Master, who may need to consult with other senior members of staff to ascertain operational requirements.

Performance Statements:

The following standards must be achieved for a Harbour Master to be considered competent at assessing required manning levels and directing recruitment, training and staff development:

1	Appropriate policies for the selection and appointment of suitable marine personnel should be developed and implemented.
2	An audit trail should be established to ensure that appropriate members of staff are carrying out established policies effectively.
3	Manning levels for marine functions should be determined, having due regard to the need for efficient and effective marine operations.
4	Consultation with other port departments and users should be undertaken as necessary to establish required manning and skills levels.
5	Adequate levels of skill should be maintained so as to ensure effective marine operations.
6	The training and development needs of marine personnel should be established by recognised means, including appraisals where appropriate.
7	Appropriate training and personal development of all marine staff should be ensured.
8	Procedures should be adopted to facilitate the co-ordination, review and validation of requests for training and personal development.

Essential knowledge

The following areas of knowledge are considered essential for this element (in addition to those listed for the full unit):

- 22 IALA VTS standards
- 29 Local and national trade unions
- 31 Manpower planning
- 41 Permits to work
- 42 Personnel issues
- 61 Vessel traffic systems and operating methods

Element 3.2 Managing staff effectively

Element summary:

The Harbour Master should take such action as necessary, including performance appraisal, to ensure that marine staff at all levels are fully aware of the duties and responsibilities imposed on them by the organisation's policies and procedures. Job descriptions, staff appraisal and codes of conduct will also need to be considered.

Performance Statements:

The following standards must be achieved for a Harbour Master to be considered competent at managing staff effectively:

1	Marine staff should be made aware of the existence of relevant policies, procedures and guidance.
2	Terms and conditions of employment should be developed and made clear to all marine staff.
3	Job descriptions should be developed for all marine staff and kept under review.
4	All marine staff should be made aware of their individual and collective responsibilities.
5	Staff performance should be reviewed at reasonable intervals and appropriate feedback provided.
6	Appropriate levels of delegated authority and responsibility should be made clear.
7	Performance indicators and objectives should be set for all staff to whom authority is delegated.
8	Every effort should be made to promote harmonious working relationships between all members of marine staff.

Essential knowledge

The following areas of knowledge are considered essential for this element (in addition to those listed for the full unit):

- 8 Disciplinary and grievance procedures
- 22 IALA VTS standards
- 29 Local and national trade unions
- 41 Permits to work
- 42 Personnel issues
- 53 Safety of public and personnel
- 61 Vessel traffic systems and operating methods

Element 3.3 Managing financial resources

Element summary:

In many ports Harbour Masters manage their own budgets. The Harbour Master will normally have played a part in establishing the finance available in any year and must ensure that the agreed resources are used in accordance with budget estimates. The budget will be monitored throughout the year and the Harbour Master will report on its state at regular intervals. To achieve high standards of safety the Harbour Master should ensure that operations are adequately resourced, including provision for purchases of new or replacement plant and equipment. The Harbourmaster may also be asked to provide advice on marine contracts, leases and licences and will provide input to the organisation's overall strategic financial planning.

Performance Statements:

The following standards must be achieved for a Harbour Master to be considered competent at managing financial resources:

1	Appropriate input should be made to the preparation of revenue and expenditure budgets, in line with organisational requirements.
2	When producing budgets, priority consideration must be given to ensuring sufficient resources to enable safe and efficient marine operations.
3	Agreed resources should be utilised sensibly with due consideration to the operational needs of the organisation, the demands of customers and to maintaining navigational and personal safety.
4	A plant replacement programme should be drawn up, justifying costs where appropriate.
5	Where appropriate, relevant advice should be provided to the Board regarding contracts, leases and licences, and capital works.
6	Where appropriate, the authority's insurance arrangements must be kept under regular review. Measures for notifying insurers of changes in the authority's requirements should be put in place.

Essential knowledge

The following areas of knowledge are considered essential for this element (in addition to those listed for the full unit):

- 3 Budgeting
- 47 Port finances

Element 3.4 Managing port marine assets

Element summary:

The Harbour Master is responsible for ensuring that all port authority operated craft are operated safely, in accordance with current regulations and guidelines. This will involve staff training and manning levels, as well as craft construction, maintenance and insurance. Other marine infrastructure, such as buildings, offices, quays, pontoons, walkways, lock gates, quay fendering, buoys, beacons and various plant and equipment may also come within the Harbour Master's area of responsibility.

Performance Statements:

The following standards must be achieved for a Harbour Master to be considered competent at managing port marine assets:

1	The marine infrastructure should be inspected frequently and repairs or replacements arranged as appropriate, within available resources.
2	Adequate resources should be allocated to port marine assets, including required manning and/or funding.
3	Arrangements for insuring port marine assets should be reviewed regularly to ensure they are up-to-date.
4	The timing of both internal and external maintenance activities should be integrated with marine operations to ensure continuation of essential activities.

Essential knowledge

The following areas of knowledge are considered essential for this element (in addition to those listed for the full unit):

- 3 Budgeting
- 16 Equipment maintenance procedures
- 50 Property matters (including leases and wayleaves)
- 55 Ship towage, tugs and towage procedures

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Unit 4 Managing emergencies

Unit Summary:

The agencies involved in an emergency response have different methodologies and priorities. Responsibilities for emergency response may overlap in some areas but leave gaps in others. Planning by the Harbour Master needs to address potential conflicts and ensure that every aspect of emergency response is covered. Statutory obligations under OPRC and DSHAR will also need to be taken into consideration, as should the expectations of the general public.

Unit Structure:

- 4 Managing emergencies
 - 4.1 Preparing and maintaining emergency plans
 - 4.2 Assessing and responding to an emergency

Essential knowledge

The following areas of knowledge are considered essential for all elements of this unit:

- 1 Areas/limits of jurisdiction
- 5 Business management techniques and business practices
- 13 Emergency planning principles and procedures
- 14 Emergency services
- 30 MAIB/MCA reporting requirements
- 34 Media response
- 36 National and local Contingency Plans
- 39 OPRC
- 46 Pollution prevention, dispersal and recovery methods
- 48 Port layout and infrastructure
- 58 Threat Assessment Levels
- 62 Theory and use of formal risk assessments

Other areas of knowledge are shown under separate elements.

Element 4.1 Preparing and maintaining emergency plans

Element summary:

The Harbour Master is responsible for creating contingency plans and procedures that deal with operational and marine emergencies within the port, consulting with all relevant parties. These must be appropriately exercised, reviewed and updated in order to measure effectiveness and identify training needs.

Performance Statements:

The following standards must be achieved for a Harbour Master to be considered competent at preparing and maintaining emergency plans:

1	The type and extent of potential emergency situations should be established, especially those with the risk of injury or loss of life, harmful impact to the natural environment, or major damage to property.
2	Compliance with appropriate legislation should be ensured.
3	Strong links should be established with the emergency services and others whose help may be required to best respond to an emergency.
4	Areas of jurisdiction, chains of command and priorities should be agreed.
5	'Worst-case' scenarios should be considered, together with the level of response appropriate to each.
6	Emergency plans, based on advice received, personnel and equipment available should be developed and circulated, following consultation with all relevant parties.
7	An oil spill contingency plan should be maintained and exercised.
8	A system for periodically reviewing emergency plans should be set up, involving all contributors.
9	Any changes to the emergency plans should be promulgated to all interested parties, ensuring that only up-to-date information is available and that obsolete data is erased.
10	Realistic and appropriate exercises should be undertaken to test the effectiveness of the emergency plans.
11	Opportunities for regular training with the emergency services should be explored.

Element 4.2 Assessing and responding to an emergency

Element summary:

In the event of a marine emergency occurring in the port, the Harbour Master is likely to assume overall control of the response. The situation must be addressed quickly and effectively, actions determined and clear instructions given to others, to resolve or alleviate the emergency situation. The Harbour Master must ensure that adequate resources, both human and material, are available, or can be readily obtained, when needed. The Harbour Master will be required to communicate and work effectively in the interests of the port with a wide range of organisations, including the emergency services, government agencies, ship owners/operators and their representatives, local authorities, public interests, environmental groups and, importantly, the media.

Performance Statements:

The following standards must be achieved for a Harbour Master to be considered competent at assessing and responding to an emergency:

1	Upon receipt of information concerning an emergency, arrangements to establish and manage a response centre should be put in hand immediately.
2	An emergency response plan should be implemented that takes account of methods of controlling the emergency and links with relevant bodies.
3	The expertise needed to meet the requirements of the plan should be considered and any shortcomings addressed.
4	Adequate training for port personnel involved in emergency response should be provided at the earliest opportunity.
5	A call-out system should be established to ensure that sufficient suitable personnel are always available to respond to an emergency.
6	The type of plant and equipment needed to deal with potential emergencies should be ascertained and their short-notice availability confirmed.
7	Instructions issued during an emergency must be clear and concise.
8	Protection of the authority's legal liabilities must be ensured in managing emergency operational response and in dealings with other agencies.
9	Appropriate records of the management of the response should be maintained.
10	Appropriate methods of controlling the release of information should be considered.

Essential knowledge

The following areas of knowledge are considered essential for this element (in addition to those listed for the full unit):

- 51 Recovery of personnel from the water

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Unit 5 Managing the marine environment

Unit summary:

Harbour authorities are required to have regard for the environment with respect to the conduct of all port operations and the planning and execution of development plans or projects. The Harbour Master will therefore need to understand the requirements and implications of relevant environmental legislation and conservation designations for the protection of habitats, flora and fauna in and adjacent to the harbour area. The Harbour Master may also have a major role in the development and implementation of management schemes within the area of jurisdiction.

Unit structure:

- 5 Managing the marine environment
 - 5.1 Identifying and reviewing the status of the port's physical and ecological marine environmental and conservation features, taking into account relevant issues and regulations.
 - 5.2 Advising on, implementing and reviewing port marine environmental policy.
 - 5.3 Assessing and monitoring the environmental impact of port operations and activities.
 - 5.4 Advising on the impact of port plans or projects on the marine environment, ensuring sustainable development.
 - 5.5 Ensuring compliance with the port's statutory obligations related to the marine environment, meeting the requirements of statutory and non-statutory Management Schemes.

Essential knowledge:

The following areas of knowledge are considered essential for all elements of this unit:

- 1 Areas/limits of jurisdiction
- 9 Dredging application procedures and dredging methods
- 10 Disposal at sea and relevant legislation
- 11 Duty of care
- 17 Estuary and Coastal Zone management
- 27 Local environmental concerns
- 37 Nature conservation designations
- 48 Port layout and infrastructure

Element 5.1 Identifying and reviewing the status of the port's physical and ecological marine environmental and conservation features, taking into account relevant issues and regulations

Element Summary:

To enable a relevant and coherent environmental policy to be followed there should be a full understanding of the relationship between the port and the marine environment, together with appropriate knowledge of nature conservation designations, environmental issues and practices, and relevant legislation.

Performance Statements:

The following standards must be achieved for a Harbour Master to be considered competent at identifying and reviewing the status of the port's physical and ecological marine environmental and conservation features:

1	Environmental survey and monitoring programmes should be implemented and/or assisted that establish the status of the port's physical and ecological features, such as coastal processes, sediment characteristics and quality, plant, animal and bird communities.
2	A system should be implemented to ensure that full information is available to the port concerning the classification by national conservation bodies of the habitats, flora, fauna, physical features and coastal processes in and adjacent to its area of jurisdiction.
3	Appropriate procedures should be established to identify operations and activities that may potentially be harmful to the marine environment.
4	Means of communication should be implemented to enable stakeholders to bring environmental issues to the attention of the Authority.
5	A reference system of environmental legislation that is relevant to the port and its operations should be maintained, together with related environmental guidelines and codes of practice.
6	Where appropriate, resources for analysing environmental information and trends should be made available to enable informed decisions to be taken.

Element 5.2 Advising on, implementing and reviewing port marine environmental policy

Element Summary:

The port should have an environmental policy and is required to avoid or minimise potential environmental impacts arising from commercial or other operations and to conform to legislation and good practice. The Harbour Master plays a key role in this respect, by providing advice and helping to ensure that current port environmental policies are relevant and up-to-date and known to harbour users.

Performance statements:

The following standards must be achieved for a Harbour Master to be considered competent at advising on, implementing and reviewing port marine environmental policy:

1	All marine staff should be made aware of the port's environmental management policy and any related codes of practice.
2	Marine staff should be instructed to report any situations, which may detract from the policy.
3	Close liaison with local authorities and environmental/conservation agencies should be established in order to facilitate early identification of conflicts and to promote mutual understanding.
4	An effective means of implementing environmental policy should be put in place. This should include means of monitoring, measuring and reviewing policy objectives and of effecting change where appropriate.
5	Sufficient data should be made available to enable the Harbour Master to provide advice on general aspects of environmental policy, including advice on prevailing opinion, planning requirements, mitigation and national policies affecting the marine environment.
6	A collaborative approach to monitoring and data sharing should be encouraged amongst relevant authorities.
7	The port's environmental policy should be periodically reviewed to ensure that it is sustainable and reflects current operations and activities.
8	Good environmental practice should be encouraged and harbour users advised accordingly.
9	The appropriateness of the port's statutory powers to influence environmental management should be kept under regular review.

Element 5.3 Assessing and monitoring the environmental impact of port operations and activities

Element Summary:

The effect of harbour operations on the local environment must be monitored and assessed continually. Changes to operational methods may be necessary to minimise any harmful or potentially harmful effects.

Performance statements:

The following standards must be achieved for a Harbour Master to be considered competent at assessing and monitoring the environmental impact of port operations and activities:

1	A systematic means of evaluating the port's operations and activities should be implemented for the purpose of identifying environmental issues and impacts requiring management action. Operations and activities may include vessel, cargo and maintenance operations that release marine pollutants, noise or dust, dredging and disposal activities and the management of ship-generated waste.
2	Any changes in operational methods should be assessed to ascertain the risk to the environment.
3	Action should be taken to minimise any potentially adverse effects of operations and activities on the environment, having regard to guidance on environmental good practice and codes of conduct.
4	Consideration should be given to the zoning of activities with the aim of reducing conflict between harbour users and the environment.
5	Consultation with relevant agencies should take place at regular intervals to ensure that all views are taken into consideration.
6	Environmental considerations should be taken into account when reviewing vessel traffic management procedures and techniques.

Element 5.4 Advising on the impact of port plans or projects on the marine environment, ensuring sustainable development

Element Summary:

The sustainable development of ports is essential to ensure their continued viability in response to a growing demand for trade, improved technologies and changing markets. Port developmental projects and plans must meet the requirements of European, national and local environmental legislation and planning policy, including conditions attached to specific consents and licences for marine and coastal projects. The Harbour Master may play a key role in the planning, appraisal, development, implementation and monitoring of port developments and policies, which will vary according to the harbour's trade, geography and infrastructure, ensuring that potential adverse impacts on the marine environment are minimised and records are maintained showing how the port has complied with its obligations.

Performance Statements:

The following standards must be achieved for a Harbour Master to be considered competent at advising on the impact of port plans or projects on the marine environment:

1	An environmental policy should be developed and implemented which commits the port to manage its development in an economically and environmentally sustainable manner.
2	A reference system of relevant environmental legislation and planning policy relevant to port development should be maintained and regularly updated, together with a register of nature conservation designations near the port and their objectives.
3	A system should be implemented to ensure compliance with environmental legislation, controls and conditions relating to proposed port developments, including thorough environment impact assessments where appropriate.
4	Procedures should be adopted that identify port developmental projects and plans that may be harmful to the marine environment, ensuring steps are taken to evaluate, avoid, minimise and monitor any potentially adverse effects.
5	Procedures should be adopted to maintain records of marine environmental control measures relating to port development, including mitigation and monitoring measures.
6	A consultation procedure should be implemented to ensure that the port is able to demonstrate necessary involvement of relevant stakeholders in the consultation process, preferably at an early stage in the planning process.

Element 5.5 Ensuring compliance with the port's statutory obligations related to the marine environment, including compliance with statutory and non-statutory management schemes

Element Summary:

Harbour Authorities are responsible for administering all the waters, both port and coastal, which lie within their jurisdiction for the purpose of ensuring the safety of navigation, which has benefits for environmental protection. The port has a general duty to the environment to balance the needs of nature conservation with other duties. These include statutory obligations, such as waste management planning, oil spill response planning and the management of specific operations/activities and projects/plans in accordance with environmental legislation. The port may also be required to operate in accordance with management schemes established for the purpose of nature conservation. The Harbour Master must ensure that the port's statutory duties are fulfilled and that arrangements for compliance are reviewed.

Performance Statements:

The following standards must be achieved for a Harbour Master to be considered competent at ensuring compliance with the port's statutory obligations related to the marine environment:

1	Full information should be made available from a reference system in order that the legislative requirements relevant to the port, its operations and the environment can be identified and reviewed.
2	Clear responsibilities should be established to ensure that the processes for complying with environmental legislation are followed correctly, including statutory conditions and consents required for port operations and developmental projects.
3	Training procedures should be established to ensure that appropriate staff are aware of the port's statutory obligations relating to the environment.
4	Procedures should be established to ensure compliance with the implementation, operation and review of statutory management plans, such as Port Waste Management and Oil Spill Response plans.
5	A system should be implemented to identify statutory and non-statutory environmental management schemes that are relevant to the port, ensuring appropriate compliance with their objectives.
6	Consideration should be given to documenting and reviewing the environmental benefits that arise from complying with safety legislation and implementing general byelaws that regulate port operations and activities.

Unit 6 Managing the provision of the pilotage service

Unit Summary:

The Pilotage Act 1987 places a duty upon each CHA to review the pilotage requirements within its area in order to secure the safety of vessels navigating in the harbour. The Harbour Master should ensure that clear recommendations are made to the Board, which has the ultimate responsibility for these issues. The Harbour Master should consult with port users, pilots and others with relevant involvement in the safety of vessels navigating in the harbour.

The management responsibility may be assigned to the Harbour Master, who is also required to consider whether pilotage should be compulsory and if so, in which part of the harbour and for which vessels. On behalf of the CHA, the Harbour Master may issue Pilotage Directions. The Harbour Master oversees the training and assessment of pilots and makes recommendations regarding their authorisation. The Harbour Master also grants pilotage exemption certificates and ensures the provision of properly approved, certificated and operated pilot boats.

Unit Structure:

- 6 Managing the provision of the pilotage service
 - 6.1 Managing the safe and efficient operation of the pilotage service
 - 6.2 Assessing and recommending the authorisation of pilots and the continuing assessment and re-authorisation of pilots
 - 6.3 Administering and regulating the granting and renewal of pilotage exemption certificates

Essential knowledge

The following areas of knowledge are considered essential for all elements of this unit:

- 1 Areas/limits of jurisdiction
- 5 Business management techniques and business practices
- 43 Pilotage Act 1987
- 44 Pilotage competence standards

Other areas of knowledge are shown under separate elements.

Element 6.1 Managing the safe and efficient operation of the pilotage service

Element summary:

The Harbour Master should take certain measures to ensure the provision of a safe and efficient pilotage service. Consideration must be given to the type and density of traffic, hazards to navigation, prevailing weather conditions, port design and infrastructure in determining the extent of the authority's jurisdiction for pilotage purposes. Regulations governing the pilotage service will need to be taken into consideration.

Performance Statements:

The following standards must be achieved for a Harbour Master to be considered competent at managing the safe and efficient operation of the pilotage service:

1	An appropriate policy on the provision and management of pilotage services must be developed and maintained.
2	The need for pilotage services should be determined by risk assessment, taking into consideration the number and types of vessel, as well as the demands of the pilotage area.
3	The personnel required to meet this demand should be determined, having regard to the average length of time required to execute an act of pilotage and the number of rostered hours of duty available.
4	Pilotage Directions should be enforced and reviewed as necessary.
5	The level and nature of training and experience required for each pilot should be assessed.
6	Suitable pilot transfer areas should be established.
7	Satisfactory means of communication with pilots should be established.
8	Records of pilotage acts should be maintained.
9	Investigatory and disciplinary procedures in respect of incidents involving vessels under pilotage should be agreed and implemented.
10	The efficiency, effectiveness and safety of the pilotage service should be reviewed regularly.
11	Duly certificated pilot boats should be provided, taking into account the location of pilot transfer areas, anticipated weather and sea conditions and the safety of pilots and boat crew.
12	Where appropriate, a programme of pilot boat maintenance should be implemented and appropriate records kept.

Essential knowledge

The following areas of knowledge are considered essential for this element (in addition to those listed for the full unit):

- 26 Local directions and Pilotage Directions
- 29 Local and national trade unions
- 31 Manpower planning
- 40 Passage planning
- 52 Safety management systems and ISM code
- 53 Safety of public and personnel
- 55 Ship towage, tugs and towage procedures
- 62 Theory and use of formal risk assessments

Element 6.2 Assessing and recommending the authorisation of pilots and the continuing assessment and re-authorisation of pilots

Element summary:

The Harbour Master must be satisfied that a potential pilot meets the CHA's required standard for authorisation. Ongoing and regular assessment should be undertaken to ensure that pilots are maintaining competence. The Harbour Master is also responsible for invoking disciplinary procedures that may result in suspension or revocation of a pilot's authorisation.

Performance Statements:

The following standards must be achieved for a Harbour Master to be considered competent at assessing and recommending the authorisation of pilots and the continuing assessment and re-authorisation of pilots:

1	Procedures should be established for verifying the competence of pilots.
2	In assessing the competence of a pilot, medical fitness should be ascertained.
3	A pilot's local knowledge should be determined through tripping and/or examination.
4	Piloting and ship-handling skills should be ascertained by practical assessment.
5	Recommendation for authorisation of a pilot should only be made when all required conditions have been met.
6	The re-validation of pilot authorisation should be undertaken in accordance with the Port Marine Safety Code.
7	Agreed incident and disciplinary procedures, including the means of withdrawal of authorisations, should be established.
8	Where necessary, a grading structure for pilots should be established, with appropriate interim examinations.

Element 6.3 Administering and regulating the granting and renewal of pilotage exemption certificates

Element summary:

The Harbour Master must ensure that effective and appropriate procedures exist for the assessment of applicants for pilotage exemption certificates (PECs). The Harbour Master must be conversant with the procedures for re-issue and re-assessment and for revoking or suspending a PEC, as well as any related appeals procedure.

Performance Statements:

The following standards must be achieved for a Harbour Master to be considered competent at administering and regulating the granting and renewal of pilotage exemption certificates:

1	A system should be implemented to ensure that the conditions required by the Pilotage Act and the Port Marine Safety Code are complied with. This will ensure that the experience and local knowledge of an applicant for a pilotage exemption certificate (PEC) are sufficient to enable that person to pilot the vessel(s) specified in the certificate.
2	The piloting and appropriate ship-handling skills of the applicant should be ascertained by practical assessment.
3	The relevant experience of the applicant should be calculated on the basis of an agreed number of qualifying trips.
4	Where appropriate, the local knowledge of the applicant should be determined by examination.
5	In assessing the competence of an applicant, medical fitness should be ascertained.
6	The pilotage exemption certificate should be confirmed as being legally correct and signed by an approved person.
7	Formal agreements should be established with the PEC holder, the holder's employer and the CHA.
8	Accurate and up-to-date records of pilotage exemption certificates issued and/or revoked should be maintained.
9	Arrangements for suspension or revocation should be clearly set out and clarified to each PEC holder.
10	A reporting system must be operated to facilitate notification to the harbour authority of acts of pilotage conducted under exemption.

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Unit 7

Communicating with external interests

Unit Summary:

The Harbour Master should establish procedures for the promulgation of official regulations, policies, notices, procedures and press releases, as well as the issuing of Notices to Mariners. It may also be necessary to establish liaison groups in order to facilitate the exchange of relevant information. It is important to ensure effective consultation regarding the maintenance and development of the safety management system, as well as changes to bye-laws and directions.

The Harbour Master will often be personally involved in meetings with various parties and on such occasions this will be as the port's ambassador. There will be a requirement to demonstrate good communication and interpersonal skills at all levels.

Unit Structure:

- 7 Communicating with external interests
 - 7.1 Maintaining effective relations with relevant parties
 - 7.2 Representing the port and providing relevant advice

Essential knowledge

The following areas of knowledge are considered essential for all elements of this unit:

- 5 Business management techniques and business practices
- 14 Emergency services
- 19 Grant applications
- 20 Harbour Revision Orders
- 24 Involvement with Government departments
- 28 Local planning requirements
- 33 Marketing and port promotion
- 50 Property matters (including leases and wayleaves)
- 56 Special interest groups
- 60 Trade organisations

Other areas of knowledge are shown under separate elements.

Element 7.1 Maintaining effective relations with relevant parties

Element summary:

The Harbour Master needs to communicate effectively with a wide range of contacts including port users, representatives of commercial organisations, public bodies, government departments and the media. Similar effective communication is necessary with members of staff and others who work in the port and their representatives.

Performance Statements:

The following standards must be achieved for a Harbour Master to be considered competent at maintaining effective relations with relevant parties:

1	Regular meetings should be arranged with port users, stakeholders and other interested parties to convey accurate information about the port and its plans and to consider their views.
2	Contacts with the media, including local and national newspapers, radio and television should be developed as a means of imparting factual information about the port.
3	Following meetings with stakeholders and others, consideration should be given to alternative means of communication which may be more effective and time-saving.
4	Other means of providing information about the port, its operations and evolving issues, should be developed, including the provision of printed documents and use of the internet.
5	Good relationships should be developed with local community groups, local authorities and organisations, politicians and other ports.
6	Knowledge of local media working practices and deadlines should be gained.

Essential knowledge

The following areas of knowledge are considered essential for this element (in addition to those listed for the full unit):

- 29 Local and national trade unions

Element 7.2 Representing the port and providing relevant advice

Element summary:

On many occasions the Harbour Master will act as a spokesman, representing the port's interests. Good interpersonal skills and the ability to give high quality briefings at meetings of various stakeholder groups should be demonstrated. The Harbour Master will often be required to provide formal advice on behalf of the authority.

Performance Statements:

The following standards must be achieved for a Harbour Master to be considered competent at representing the port and providing relevant advice:

1	Good communication skills and a full understanding of the matters at hand must be demonstrated when representing the port or acting as a spokesperson.
2	Early and effective contact with the media should be achieved during emergency situations, taking care to ensure that the media are not handled in a manner which may cause adverse publicity for the authority.
3	Responses to media enquiries should be speedy and factual.
4	Follow-up statements or briefings should be made regularly and contain accurate and relevant information.
5	Informed and relevant advice should be provided readily when required.

Essential knowledge

The following areas of knowledge are considered essential for this element (in addition to those listed for the full unit):

- 34 Media response

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Unit 8

Managing the leisure use of the port

Unit Summary:

Many ports and harbours have a considerable involvement in the provision of recreational facilities. This may include the identification of suitable sites for moorings or marinas and other recreational activities, as well as the control of certain activities, such as water-skiing and personal watercraft. It is important to maintain effective relationships with recreational users.

Some harbour authorities licence certain passenger-carrying and other commercial craft within their areas of jurisdiction in accordance with local and national standards. This involves assessment of competence for boat operators and survey of equipment.

Unit Structure:

8 Managing the leisure use of the port

- 8.1 Managing and regulating recreational facilities and activities
- 8.2 Licensing commercial and passenger craft and their operators
- 8.3 Managing relationships with leisure users

Essential knowledge:

The following areas of knowledge are considered essential for all elements of this unit:

- 1 Areas/limits of jurisdiction
- 5 Business management techniques and business practices
- 33 Marketing and port promotion

Other areas of knowledge are shown under separate elements.

Element 8.1 Managing and regulating recreational facilities and activities

Element summary:

Recreational facilities are likely to include the provision of moorings. The Harbour Master should establish a moorings policy that takes account of operational and environmental factors and navigational safety. These and other facilities need to be managed effectively by the Harbour Master, who must ensure that port-owned equipment and infrastructure is properly maintained. Information and guidance should be provided to the leisure user.

Performance Statements:

The following standards must be achieved for a Harbour Master to be considered competent at managing and regulating recreational facilities and activities:

1	A policy for small craft moorings should be established whereby procedures are identified for the provision, location, allocation, specification and maintenance of moorings within the authority's area of jurisdiction.
2	A database of moorings and small craft should be established which is capable of providing information on accounts, licences, waiting lists and other functions related to the management and identification of small craft.
3	Where appropriate, leases or licences should be drawn up between owners of the seabed and the harbour authority.
4	Harbour bye-laws covering the management of leisure and recreational craft should be enforced and, where necessary, updated.
5	To minimise potential conflict between different interests, zoning of the harbour should be considered for certain waterborne leisure activities.
6	Port craft used to support recreational facilities should be properly maintained.
7	Where appropriate, events such as regattas and displays should be risk-assessed in order to create a safe environment for both participants and onlookers.
8	The authority's standards of safety and discipline should be made known to all users.

Essential knowledge

The following areas of knowledge are considered essential for this element (in addition to those listed for the full unit):

- 52 Safety management systems and ISM code
- 53 Safety of public and personnel
- 62 Theory and use of formal risk assessments

Element 8.2 Licensing commercial and passenger craft and their operators

Element summary:

Harbour authorities may be empowered to licence commercial vessels that carry up to twelve passengers and in some cases other craft. The Harbour Master must ensure that the appropriate risk assessment is carried out by the relevant organisation(s). The Harbour Master may be responsible for ensuring that licences are only issued when the vessel and its equipment meet minimum standards, in accordance with harbour byelaws and marine legislation following authorisation by the MCA. Operators and crew of passenger-carrying vessels may also need to be licensed following compliance with examination procedures.

Performance Statements:

The following standards must be achieved for a Harbour Master to be considered competent at licensing commercial and passenger craft and their operators:

1	Where appropriate, boat equipment should be carefully examined to ensure that levels are commensurate with the vessel's limits of range.
2	Confirmation should be obtained that up-to-date hull and engine surveys have been carried out to a required standard and that any deficiencies found have been rectified.
3	Where appropriate, crews should be examined to ascertain competence in local knowledge, seamanship skills, emergency situations and other skills as required by the conditions of the licence. Alternatively, evidence of existing levels of competency should be determined.
4	Regular checks should be made to ensure that craft and their operators have appropriate current licences.
5	Where appropriate, authorisation should be obtained from the MCA to issue licences under the appropriate Codes of Practice.

Essential knowledge

The following areas of knowledge are considered essential for this element (in addition to those listed for the full unit):

- 25 Licensees' obligations

Element 8.3 Managing relationships with leisure users

Element summary:

The Harbour Master must maintain good working relationships with the various leisure users in the port. On occasion, such liaison will extend to close co-operation in the management, and perhaps organisation, of water-based events, such as sailing regattas, races and festivals.

Performance Statements:

The following standards must be achieved for a Harbour Master to be considered competent at managing relationships with leisure users:

1	A policy for the provision of recreational moorings should be formulated in consultation with user groups and other interested parties.
2	Educational and promotional material should be made available in order to encourage safe and sustainable use of the harbour by leisure users.
3	In order to promote events and other marine activities, joint arrangements with clubs, associations and other bodies should be considered.
4	Good working relationships should be maintained with leisure users.
5	Marine staff involved with the general public should be given appropriate training in customer services.

Essential knowledge

The following areas of knowledge are considered essential for this element (in addition to those listed for the full unit):

- 29 Local and national trade unions
- 34 Media response

Unit 9

Contributing to the strategic planning process

Unit Summary:

The successful development of a port or harbour depends on the corporate goals of the authority and on the ability of its management and staff to translate these into an achievable business plan. The Harbour Master needs to understand a number of linked elements: external policies and plans (international, governmental, regional, local); the planning process; and project management.

Unit Structure:

- 9 Contributing to the strategic planning process
 - 9.1 Advising on the development and implementation of port strategic and business plans
 - 9.2 Contributing to project feasibility, development and implementation

Essential knowledge

The following areas of knowledge are considered essential for all elements of this unit:

- 5 Business management techniques and business practices
- 28 Local planning requirements
- 45 Planning and development
- 47 Port finances
- 50 Property matters (including leases and wayleaves)
- 57 Strategic and business plans

Other areas of knowledge are shown under separate elements.

Element 9.1 Advising on the development and implementation of port strategic and business plans

Element summary:

An awareness is needed of regulatory and planning requirements at European, national, regional and local levels, in order to be able to advise the Board on certain aspects of the port's strategic and business plans.

Performance Statements:

The following standards must be achieved for a Harbour Master to be considered competent at advising on the development and implementation of port strategic and business plans:

1	Relevant and accurate advice should be provided to the Board on issues that impact on marine operations.
2	Guidance should be provided as required to support the development of the port's strategic and business plans.
3	Strengths and weaknesses within the marine operations department should be identified.
4	Deficiencies within the marine operations department should be addressed and remedial action proposed.

Element 9.2 Contributing to project feasibility, development and implementation

Element summary:

In order to drive a project successfully from original concept to satisfactory conclusion, the Harbour Master will need to appreciate the project's impact on the port's overall strategy. There will be a requirement for project management skills that will include an understanding of feasibility studies as well as the ability to drive a project to achieve the desired outcomes.

Performance Statements:

The following standards must be achieved for a Harbour Master to be considered competent at contributing to project feasibility, development and implementation:

1	The relationship between individual projects and the port's overall strategy should be taken into account.
2	The feasibility of a project should be considered fully before embarking on any work.
3	Written conclusions should be provided and project approval received before development commences.
4	Approved projects should be directed in accordance with the agreed methodology.

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ESSENTIAL KNOWLEDGE

1 Legislation

Knowledge of various legislation is essential for any Harbour Master. However, the depth of knowledge required will differ from port to port. Listed below are a number of acts, codes of practice, regulations and other general aspects of legislation.

- Aviation and Maritime Security Act
- Collision Regulations
- Code of Practice for construction and certification of pilot boats
- Code of Practice for the boarding and landing of pilots
- Code of Practice for the safety of small workboats and pilot boats
- Dangerous Substances Regulations
- Dangerous Vessels Act
- Data Protection Act
- Diving Regulations
- Docks Regulations
- 'Donaldson' recommendations
- Employment legislation
- Environmental Codes of Practice
- Environmental legislation
- Guide to Good Practice (DTLR)
- Health and Safety legislation
- International and European legislation
- Local bye-laws
- Marine Codes of Practice (other than the Port Marine Safety Code and other Codes listed above)
- Marine law
- Merchant Shipping legislation
- Pilotage Act
- Port Marine Safety Code
- Port State Control
- Regulations concerning the disposal of dredged materials
- STCW 95
- Water Resources Act

It is recommended that all Harbour Masters acquire relevant knowledge on all the above.

2 Specific knowledge

The following list shows those aspects of knowledge that are essential to the role of Harbour Master. The required knowledge is listed separately within each unit and element; the following full list is for reference purposes only.

It is only necessary to address those knowledge aspects which are relevant in the Harbour Master's own port or harbour.

No.	Description	Units and Elements
1	Areas/limits of jurisdiction	1; 2; 4; 5; 6; 8
2	Berth design	1.1
3	Budgeting	3.3; 3.4; 9
4	Buoy types & IALA system of buoyage	1.1; 2
5	Business management techniques and business practices	2; 3; 4; 6; 7; 8; 9
6	Commercial cargo handling/stevedoring	2
7	Commercial trends	3
8	Disciplinary and grievance procedures	3.2
9	Dredging application procedures and dredging methods	5
10	Disposal at sea	5
11	Duty of care	2; 5
12	Effects of weather, currents and tide on vessels	2
13	Emergency planning principles and procedures	4
14	Emergency services	4; 7
15	Enforcement	2.4
16	Equipment maintenance procedures	3.4
17	Estuary and Coastal Zone management	5
18	Fendering systems	1.1
19	Grant applications	7
20	Harbour Revision Orders	7
21	Hydrographic information and techniques	1.1; 2
22	IALA VTS standards	1.1; 2.2; 3.1; 3.2
23	Industry knowledge	All units
24	Involvement with Government departments	7
25	Licensees' obligations	8.2
26	Local directions and Pilotage Directions	1.2; 6.1
27	Local environmental concerns	5
28	Local planning requirements	7; 9
29	Local and national trade unions	3.1; 3.2; 6.1; 7.1; 8.3
30	MAIB/MCA reporting requirements	2; 4
31	Manpower planning	3.1; 6.1

32	Marine insurance	2.1
33	Marketing and port promotion	7; 8
34	Media response	4; 7.2; 8.3
35	Mooring policies	1.1; 2.2; 2.3
36	National and local Contingency Plans	4
37	Nature conservation designations	5
38	Navigation channels, depths, currents and nav aids	1.1; 2
39	OPRC (International Convention on Oil Pollution Preparedness, Response & Co-operation)	4
40	Passage planning	1.1; 6.1
41	Permits to work	3.1; 3.2
42	Personnel issues	3.1; 3.2
43	Pilotage Act 1987	6
44	Pilotage national occupational standards	6
45	Planning and development	9
46	Pollution prevention, dispersal and recovery methods	1.4; 4
47	Port finances	3.3; 9
48	Port layout and infrastructure	1; 2; 3; 4; 5
49	Powers of arrest	2.3; 2.4
50	Property matters (including leases and wayleaves)	3.4; 7; 9
51	Recovery of personnel from the water	4.2
52	Safety management systems and ISM code	1.3; 2; 6.1; 8.1
53	Safety of public and personnel	1.3; 2.3; 3.2; 6.1; 8.1
54	Seamanship terms and techniques	2.3
55	Ship towage, tugs and towage procedures	2.2; 3.4; 6.1
56	Special interest groups	7
57	Strategic and business plans	9
58	Threat Assessment Levels	1.5; 4
59	Tides and meteorology	1.1; 2
60	Trade organisations	7
61	Vessel traffic systems and operating methods	1.1; 2.2; 3.1; 3.2
62	Theory and use of formal risk assessments	1.1; 1.5; 2.1; 4; 6.1; 8.1