
Overview

This standard covers the competence required to support marine safety, operations and safe navigation within port areas. It includes the safe controlling and navigating port craft. It also covers the provision and control of moorings and making the most efficient and effective use of available mooring space. It includes keeping navigational channels safe and clear of obstructions, and being aware of weather conditions.

This standard also covers the coordination and controlling of vessel berthing operations ensuring that an appropriate berth for a vessel is identified and safely managing the movement of the vessel into the berth.

The standard also includes the provision of information and provision of assistance for the planning of vessel movements within a port area.

Target Group

This standard applies to authorised Port Operations supervisors and first line managers who have a duty to perform to support safe navigation within port areas.

This standard applies to authorised Port Operations supervisors and line managers who have a responsibility to support port marine safety and safe navigation.

There are 5 elements in this standard:

1. Control and navigate port craft
2. Contribute to the provision and control of moorings
3. Coordinate and control vessel berthing operations
4. Provide information to assist the planning of vessel movements within a port area
5. Assist the planning of vessel movements

PSSSPO106

Support port marine operations

Performance criteria

Control and navigate port craft

- You must be able to:*
- P1 check and confirm that operating systems are functioning properly before departing, including those controlling manoeuvring and navigation, addressing any faults
 - P2 determine work schedules for the crew, establishing that activities have the correct manning and skills levels
 - P3 allocate duties fairly and in line with own work schedules, taking into account skills, knowledge, experience and workloads
 - P4 establish that the correct equipment is available for the crew to enable the intended activities to be undertaken, confirming that it is in good working order, and certificated where necessary
 - P5 determine accurately the craft's position, course and speed using the available navigation equipment
 - P6 ensure the craft's course and speed are set accurately, using available equipment and taking into account the current and required position, weather conditions, water depth and currents, tides and the craft's construction
 - P7 ensure that the navigation equipment is set up and used, in line with recommended practice and the manufacturers' instructions, and the resultant information is interpreted correctly
 - P8 communicate the craft's position, course, speed and destination, as required
 - P9 manoeuvre the craft, taking action to avoid collisions where necessary and in line with the requirements of regulations and bye-laws
 - P10 report any defective equipment to the relevant person or authority
 - P11 monitor navigational broadcasts and warnings, taking the appropriate actions in response where necessary
 - P12 ensure all records are maintained accurately

Contribute to the provision and control of moorings

- You must be able to:*
- P13 plan mooring allocations with the relevant person(s), and take into account the available depth of water, any known obstructions on the seabed, the type, size and construction of vessels, and avoiding mixing of keel types within a mooring area
 - P14 identify particular requirements and resources within the plan and confirm their availability
 - P15 ensure that vessels allocated to moorings match the mooring requirements for the berth

PSSSPO106

Support port marine operations

- P16 ensure that plans make the optimum use of the port's amenities, infrastructure and equipment
- P17 ensure plans are accurate, complete and legible, and are provided in a format that can be used readily
- P18 ensure that all necessary mooring equipment is obtained, prepared and assembled
- P19 verify mooring locations, ensuring that moorings are deployed and at designated points which take into account tidal and wind conditions
- P20 check the validity and reliability of information
- P21 prioritise work to make the best use of time and resources

Coordinate and control vessel berthing operations

You must be able to:

- P22 identify the vessel's intended berthing position, and confirm that the designated berth is available
- P23 check and confirm that that berth is safe and ready for use, identifying and addressing any remedial actions required
- P24 obtain all relevant information regarding the vessel to prepare for berthing, including its size, any particular requirements, the number, length and size of mooring lines and whether mooring boats or other equipment is required
- P25 determine the staffing and resource requirements necessary to berth the vessel, identifying the actions to be undertaken
- P26 agree berthing arrangements with all of those involved ahead of the operations
- P27 take relevant actions promptly to ensure that health, safety, security and environmental requirements are met
- P28 wear, use and maintain correctly, personal protective equipment, relevant to own area of operations
- P29 ensure that berthing materials and equipment are used safely, with vessels berthed in line with correct procedures
- P30 monitor the activities of individuals and/or teams against the standards of performance expected, and provide prompt and constructive feedback
- P31 recognise the successful completion of key activities and operations by individuals and/or teams
- P32 ensure that the quayside is left clean, tidy and free of obstructions upon completion of the berthing
- P33 address any difficulties or incidents, reporting these, as required

PSSSPO106

Support port marine operations

Provide information to assist the planning of vessel movements within the port area

You must be able to:

- P34 obtain provisional arrival and sailing times and confirm these with the relevant vessels and their agents
- P35 maintain contact with vessels throughout their movement within own port's limits
- P36 monitor other traffic within own port, and assess their potential effect upon vessel movement and berthing operations, taking the relevant actions accordingly
- P37 use traffic monitoring equipment, in line with the manufacturer's instructions
- P38 obtain all relevant information regarding vessels being monitored, including appropriate details of their position, dimensions, loads, any defects, whether a pilot/tug is required, berth location and their time of arrival
- P39 ensure where a pilot or tug is required for vessel movement and berthing that one is available and address any difficulties
- P40 provide navigation warnings promptly at relevant locations and times
- P41 assess all information received from relevant sources regarding a vessel and its movement, and act upon it

Assist the planning vessel movements within the port area

You must be able to:

- P42 identify the information necessary to planning a vessel's movements and obtain it from the appropriate sources, including navigation charts, tide gauge and tables, radar and weather instruments
- P43 obtain all relevant details regarding the vessels, including their size and dimensions, draught, loading and unloading requirements, and the nature of any loads
- P44 identify occasions where vessels are carrying dangerous goods, and take the relevant actions accordingly
- P45 identify appropriate routes and berthing positions for vessels, taking into account their size and dimensions, any requirements relating to their loads, and other traffic in the port
- P46 notify the relevant person(s) promptly of any special requirements relating to the movements of a vessel
- P47 ensure that contributions to incident planning are correct, clear and prompt, with any recommendations being supported with a relevant rationale
- P48 maintain all required records, ensuring that these are accurate, clear and complete

PSSSPO106

Support port marine operations

P49 make effective use of existing sources of information

P50 check the validity and reliability of information

PSSSPO106

Support port marine operations

Knowledge and understanding

You need to know and understand:

- K1 the legal responsibilities for maintaining own and others' health and safety in your workplace
- K2 the requirements placed upon the individual and the organisation by current legislation, directions and bye-laws related to port marine operations
- K3 current industry guidance, relating to port marine operations
- K4 own organisation's policies, procedures and working practices that relate to port marine operations
- K5 the principle types of hazard and risk associated with port marine operations
- K6 the precautions appropriate for minimising the risks associated with port marine operations
- K7 how to correctly wear, use and maintain personal protective equipment, relevant to port marine operations
- K8 how to locate, correctly use and maintain the principle types of safety and incident response equipment relevant to port marine operations
- K9 the accident and emergency procedures of the organisation and individual roles and responsibilities, relevant to port marine operations
- K10 location of and how to operate alarm systems
- K11 procedures for contacting the emergency services
- K12 location of the approved escape routes and assembly points
- K13 own responsibilities for reporting accidents and emergencies
- K14 the limits of own responsibilities when involved in port marine operations
- K15 roles and responsibilities of others in own area of operations, relating to port marine operations
- K16 how to interpret organisational charts/plans and schedules for planned work
- K17 how to use tidal stream atlases, tide tables, Nautical Almanacs and pilot/sailing directions
- K18 how to plan, monitor and execute a passage plan and the impact of deviation and variation
- K19 the different types of course, including: true, magnetic, compass and gyro
- K20 how to use electronic navigation aids, as well as relevant non-electronic aids, and the limitations of navigation equipment
- K21 the use of buoyage systems and navigation lights
- K22 how to obtain and interpret weather information
- K23 how different types of adverse weather can impact upon craft movements within port areas
- K24 how to calculate tidal heights and ranges, and the local impact of tidal streams upon craft movements
- K25 handling characteristics of port craft relevant to own area of operations
- K26 how to determine the position of own craft, using navigation equipment relevant to own area of operations, in both good and restricted visibility
- K27 how to operate equipment safely according to own organisation

PSSSPO106

Support port marine operations

- procedures, within own area of operations
- K28 the roles and responsibilities of those involved in facilitating vessel movement and their lines of communication to people, within own area of operations
- K29 the organisation's requirements relating to recording the movements of craft within the port
- K30 the effect of a craft's speed in relation to its impact upon other vessels, property and persons
- K31 the importance of reporting promptly any defects in the equipment, and the procedures for doing this
- K32 the local port geography and water conditions and their impact upon port marine activity navigating craft within own port (including: navigable channels and tides)
- K33 the types, functions and adjustments of communications equipment, and regulations governing radio transmission in both normal and emergency situations, and
- K34 the conditions likely to affect the transmission and reception of signals, relevant to own area of operations
- K35 how to read and understand tidal and chart information and schedules for planned work
- K36 assembly and fixing methods for moorings, and the limitations of specific types of mooring
- K37 the handling characteristics of craft relevant to own area of operations
- K38 the implications of adverse weather and tidal conditions on the depth of available water, moorings, including requirements for additional moorings and the movement and handling of vessels, within own port area
- K39 the organisation's operating limits for each berth, and their implications when planning mooring allocations
- K40 the importance of applying speed limits relating to berthing operations of larger vessels
- K41 the correct words and phrases used in describing vessels and their movements within a port area
- K42 hand signals for heave, slack, stop and secure
- K43 the methods for safe handling of mooring ropes, including how to dip ropes and to heave lines
- K44 the impact that motion and tidal range have upon berthing vessels, and where these apply within own area of operations
- K45 the dimensions, limitations and maintenance requirements of docks and approach channels, within own area of operations
- K46 how to obtain accurate information about a vessel and relate this to berthing availability within own area of operations
- K47 the basic principles of vessel navigation, movement and manoeuvring
- K48 the local marine environment, including the port area
- K49 the types, functions and adjustment of communications equipment, and the regulations governing radio transmission in both normal and

PSSSPO106

Support port marine operations

- emergency situations, and also the conditions likely to affect the transmission and reception of radio signals
- K50 how to record messages (both transmitted and received) and the format to use, relevant to own area of operations
- K51 the role and responsibilities of those involved in facilitating vessel movement and their lines of communication to people, relevant to own area of operations
- K52 the different classifications of dangerous goods
- K53 the local marine environment, including the port area relevant to own area of operations
- K54 the role and responsibilities of those involved in facilitating vessel movement and their lines of communication to people, relevant to own area of operations
- K55 The different types of assistance available to vessels mooring within the port area

PSSSPO106

Support port marine operations

Additional Information

This standard is applicable to controlling and navigating port craft, contributing to the provision and control of moorings, coordinating and controlling vessel berthing operations and assisting the planning of vessel movements within a port area

The performance criteria, knowledge and understanding requirements are related to the individual's own organisation, job role and area of operations. This includes but is not limited to the individual's immediate place of work. It extends to areas, operations and persons that may be impacted upon by the individual's activity in the workplace.

The performance criteria, knowledge and understanding requirements are specific to the: regulations, industry and other guidance recognised by the individual's employer, employing organisation's objectives, policies, procedures, and working practices; that relate to the elements covered in this standard.

The performance criteria, knowledge and understanding requirements are specific to the individual's own level of authority and responsibility.

Ports and the activities which take place there vary. Employers and any other duty holders must comply with the legal duties imposed on them by health and safety legislation, including the Health and Safety at Work Act 1974. This will also involve careful and continuing risk assessments to enable duty holders to plan, implement, manage and review policies and procedures which address the risks associated with the conduct of their business. The statutory duty of the employee to take reasonable care for the health and safety of themselves and other persons who may be affected by their acts or omissions at work and to cooperate with the employer with regard to the employer's health and safety duties, are an essential part of this standard.

PSSSPO106

Support port marine operations

Developed by Port Skills and Safety

Version number 2

Date approved February 2013

Indicative review date February 2016

Validity Current

Status Original

Originating organisation Skills for Logistics

Original URN PSSSPO106

Relevant occupations Supervision of Ports

Suite Supervision of Port Operations

Key words Supervision of port operations; port security operations; port safety; ports; vessels