

PSS National Occupational Standards



# Port Operations

2013 edition

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### Overview

This standard covers the competence required to support cargo handling operations. Ports may handle many different types of cargo including: dry bulks, liquid bulks, cargo transport units and roll-on/roll-off.

This standard includes checking and marking cargo, securing cargo and transferring loads through slinging and signalling. It is also about the loading and unloading of cargo transport units, receiving, storing and despatching cargo and handling loads manually. It is also about providing support to roll-on/roll-off operations including signalling to drivers, using associated equipment, such as trestles and jacks and operating air suspension devices.

This standard also includes operating equipment to discharge and/or load bulk liquid cargo. This includes preparing for the arrival of a tanker or vessel, connecting the pipelines and ensuring that the cargo flows properly and disconnecting the pipelines and cleaning the equipment that has been used.

### Target Group

This standard applies to port workers who are required to support cargo handling operations.

There are 8 elements in this standard:

1. Check, mark and record cargo
2. Secure cargo
3. Transfer loads through slinging and signalling
4. Load and unload cargo transport units
5. Receive, store and dispatch cargo
6. Handle loads manually
7. Support cargo handling operations associate with Ro/Ro vessels
8. Operate equipment for moving bulk liquids

# PSSPO101

## Undertake cargo handling operations

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### Performance criteria

#### Check, mark and record cargo

*You must be able to:*

- P1 identify the type, condition and quantity of cargo
- P2 confirm that relevant documentation is complete and accurate, and is in line with the labelling of the cargo
- P3 identify and mark cargo legibly, using marking materials and methods suited to the cargo type, condition and quantity
- P4 report and record any observed or reported missing items or damage to cargo and deal with any damage or problems with the cargo and any discrepancies with the documentation, reporting any difficulties which are outside your level of responsibility to the responsible person
- P5 identify any cargo in a hazardous condition, and implement relevant health and safety procedures, recording the incident in accordance with standard operating procedures
- P6 obtain all relevant all relevant information regarding the movement of cargo, maintaining confidentiality where required
- P7 keep information secure
- P8 maintain accurate, up to date and legible records of all information relevant to the operation being undertaken
- P9 fulfil customers' requirements covering the maintenance or records regarding the movement and storage of their cargo
- P10 address any difficulties in recording and retrieving information

#### Secure cargo

*You must be able to:*

- P11 ensure that cargo is stable prior to it being secured
- P12 identify, assess and use lashing / securing points of adequate strength for the forces to be applied when securing the cargo
- P13 secure cargo efficiently, using the appropriate securing devices and equipment, with all securing devices positioned and tensioned both safely, taking into account its type, weight and dimensions, customer requirements and the prevailing weather conditions
- P14 check and brace cargo
- P15 see where customer requirements differ from own assessment of the lashing/securing points required, and secure cargo according to instructions from own supervisor
- P16 secure cargo using methods within own level of responsibility
- P17 report any difficulties in securing cargo to the responsible person
- P18 monitor the activities and whereabouts of individuals within the vicinity of the securing operations, and take immediate and appropriate actions to address dangerous situations

#### Transfer loads through slinging and signalling

*You must be able to:*

- P19 identify the load to be slung, including its type, weight centre of gravity and dimensions
- P20 ensure that the lifting gear, method and materials selected for the lifts are suitable, fit for purpose and free from defect

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## Undertake cargo handling operations

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- P21 report any defective gear to the responsible person
- P22 confirm that the load is stable prior to it being slung
- P23 follow a lifting plan that has been agreed
- P24 attach lifting gear, and confirm that the support and balance of the load is satisfactory and secure, and that the gear will not damage the load during lifting
- P25 report any difficulties in slinging loads to the responsible person
- P26 confirm that lifting equipment is safe, working properly and all lifting points are examined and confirmed as safe, before beginning the lifting operation
- P27 ensure where hand signalling is used, a safe unobstructed view of the crane operator is maintained at all times, and where necessary, a second signaller is involved to ensure unobstructed communication
- P28 ensure that all of your communications, by hand and radio, are in line with the protocol and correct procedures agreed
- P29 interpret the signals and messages from the equipment operator and act upon these immediately
- P30 confirm the safe conclusion of a lifting operation to the crane operator
- P31 monitor all activities and the whereabouts of individuals and any vehicles within the vicinity of the lifting operation, and take immediate and appropriate actions to address dangerous situations

### **Load and unload cargo transport units**

#### *You must be able to:*

- P32 respond in line with organisation's requirements, to requests for the removal or inspection of cargo
- P33 identify the cargo units to be unloaded, confirming that door locks and seals are intact, and ensure that the units are positioned in areas designated for de-vanning
- P34 ensure that where the cargo unit is refrigerated, that power supplies are disconnected prior to the unit being moved
- P35 establish whether the cargo unit contains fumigants and where these are present, deal with these before entering the unit
- P36 where necessary, position and prepare plant ready to be lifted into the hold
- P37 open cargo units carefully to prevent loose cargo falling out, and inspect the position of the cargo, recording any damage
- P38 ensure cargo is unloaded according to agreed procedures, in line with organisation's requirements, with full cooperation given to the authority requesting the work
- P39 identify and obtain where ancillary lighting is required to ensure safe working
- P40 where it is requested that removed cargo be segregated, check with the relevant authority whether emergency equipment/services are required, obtaining this where necessary before transferring the required cargo

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## Undertake cargo handling operations

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to an appropriate inspection site

P41 reload cargo securely, taking into account the cargo type and the limitations of the cargo unit, and ensure an appropriate weight distribution

P42 use loading and access equipment which is compatible with the cargo

P43 seal loaded cargo units in accordance with legislative requirements

P44 report any difficulties, and faults in the equipment and materials

### Receive, store and dispatch cargo

*You must be able to:*

P45 collate all required documentation for cargo being received / stored / despatched, and confirm that it is complete and correct, referring any discrepancies to the responsible person

P46 ensure that there is adequate and appropriate storage area and capacity available for cargo being delivered / despatched, and that loading arrangements are appropriate and available

P47 ensure cargo is located and positioned safely before work to load / unload begins

P48 store cargo in areas suited to the type, characteristics and quantity of cargo to be stored, and you meet any particular customer requirements fully wherever possible unless agreed otherwise with the responsible person

P49 ensure cargo is stored such that it can be accessed readily and is not obstructing other normal operations

P50 ensure handling equipment used in loading / unloading is operated Safely in accordance with standard operating procedures

P51 check consignments received against order and delivery documentation to confirm that the quality, quantity and condition of the cargo is acceptable, identifying and referring any discrepancies

P52 maintain records relating to the receipt / storage / despatch of cargo, ensuring that these are up to date and complete

P53 monitor the condition of stored cargo regularly, recording and reporting any damage or deterioration in its condition

P54 ensure that any racking and shelving is in good condition and is suited for storing the cargo being stored, reporting any difficulties to the responsible person

P55 ensure working areas are kept clean, tidy and free from obstructions and **hazards**

### Handle loads manually

*You must be able to:*

P56 confirm that loads are suitable and safe for lifting manually, including assessing their weight, before beginning any lift

P57 identify the content of loads from the labelling and international symbols provided

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## Undertake cargo handling operations

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- P58 ensure that where loads contain hazardous goods, that the relevant safety precautions are identified and followed
- P59 ensure that any obstructions on the route of the lift are cleared in advance
- P60 ensure that the correct lifting and handling techniques are used at all times when handling loads manually
- P61 use handling equipment safely taking due care to avoid damaging the load at all times
- P62 report any damage and difficulties in handling loads

### **Support cargo handling operations associated with Ro/Ro vessels**

*You must be able to:*

- P63 guide drivers of vehicles manoeuvring in difficult areas
- P64 monitor areas carefully when guiding the drivers of vehicles, using clear signalling to communicate with all relevant personnel
- P65 keep working areas clear of obstructions at all times
- P66 ensure that when unhitching trailers that confirmation that movement of the vehicles is prevented, and the trailer legs are operated in accordance with standard operating procedures
- P67 where required, operate air suspension trailers
- P68 use associated equipment safely, according to the operation and vehicle requirements
- P69 where required, operate vehicle lifts safely, using clear signalling to communicate with all relevant personnel
- P70 connect, and disconnect, units with plug-in requirements
- P71 maintain own health and safety at all times
- P72 monitor all activities and the whereabouts of individuals and vehicles within the vicinity of your operations, and take immediate and appropriate actions to address dangerous situations

### **Operate equipment for moving bulk liquids**

*You must be able to:*

- P73 prepare the quay area according to own organisation's procedures ensuring that all obstructions and hazards are removed, relevant safety systems are available and operating properly and that where necessary, that the area is cordoned off with warning signs in place
- P74 establish the exact nature of the cargo to be handled, identify and assess all potential **hazards**, ensuring that all appropriate precautions are in place, including identifying the correct safety and emergency shutdown procedures
- P75 identify the equipment required and confirm that it is available and operating properly before handling the cargo
- P76 confirm the destination of the cargo and that there is adequate storage capacity available for the cargo expected, before beginning handling

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## Undertake cargo handling operations

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- operations
- P77 establish and maintain clear contact with all others involved in the operation, agreeing the protocol for transferring the cargo prior to beginning handling operations
- P78 connect pipelines properly, assembling flanges and gaskets, and lining up valves
- P79 confirm that all connections are leak-free by conducting pressure tests before moving the cargo
- P80 monitor the pipelines for leaks at all times
- P81 identify and address any difficulties in accordance with operational procedures
- P82 confirm that upon completion of the transfer, that it is safe to disconnect pipelines by checking back pressures
- P83 ensure that pipelines are cleaned and disconnected
- P84 store disconnected pipelines, hoses and gantries in good condition and in accordance with operational procedures
- P85 deal with any residues and spillages
- P86 ensure quay areas are left clean, tidy and free of obstructions
- P87 maintain up to date records, where required, of cargo transferred

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## Undertake cargo handling operations

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### Knowledge and understanding

*You need to know and understand:*

- K1 the legal responsibilities for maintaining own and others' health and safety in the workplace
- K2 the requirements placed upon the individual and the organisation by current legislation, relevant to cargo handling in own area of operations
- K3 current industry guidance relevant to cargo handling in own area of operations
- K4 own organisation's policies, procedures and working practices relevant to cargo handling
- K5 the operating procedures, capabilities (including manoeuvring characteristics) and limitations of the types of equipment within own area of operations
- K6 why it is important to report any faults defects prior to commencing operations
- K7 the organisational procedures for reporting and documenting equipment faults, tests and checks
- K8 the implications of operating equipment that is unsafe or that has been serviced poorly
- K9 the importance of checking and marking cargo, and the implications of doing this incorrectly
- K10 the principal characteristics of the main types of cargo, and the associated **hazards**
- K11 the classes of dangerous goods under and the relevant markings current regulations/code(s)
- K12 the procedures for dealing with cargo received incomplete or damaged
- K13 how to interpret coding systems relating to cargo, and how to interpret information found on cargo labels and documentation, as applicable to own organisation
- K14 the factors that can affect the stability and security of cargo when it is in transit, including the effects of environmental conditions
- K15 the methods for protecting, securing and un-securing cargo, and the appropriate types of materials and securing equipment
- K17 the principal methods and systems used to lash different types of cargo, and how to assess and select appropriate lashing points for different types of cargo
- K18 how to tension lash materials, and the implications of not doing this
- K19 the appropriate use of knots when securing cargo to ensure safe and adequate tension
- K20 the principles of chocking and tomming, and the correct use of relevant tools and equipment
- K21 the different types of **hazards** associated with securing cargo
- K22 own levels of responsibility and capability, and the persons to refer if these are exceeded

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## Undertake cargo handling operations

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- K23 methods for slinging and unslinging loads, including an awareness of angles of operations and what constitutes a safe working load
- K24 the capabilities, including capacity and strength, of the principal types of slinging and lashing materials, and the implications of using defective or faulty materials
- K25 signalling procedures and techniques
- K26 how to interpret organisation's coding systems relating to lifting equipment, and how to interpret the information found on relevant labels and documentation
- K27 the **hazards** associated with fumigants and other noxious gases, and the importance of taking the relevant precautions to ensure adequate ventilation before entering storage areas
- K28 how to handle power supplies safely
- K29 the organisation's policies and procedures relating to loading and unloading cargo transport units relevant to own area of operations
- K30 the principal methods for storing cargo, and the factors to be taken into account when selecting the correct methods, including safe heights, stability requirements and any need for segregation
- K31 the implications regarding receiving incomplete or damaged cargo
- K32 the organisation's loading priorities and operating schedules
- K33 how to apply the organisation's systems for recording cargo received and despatched
- K34 the organisation's procedures for checking cargo
- K35 safe manual handling and lifting techniques, the kinetics involved, and the importance of using these techniques correctly
- K36 the organisation's policies and procedures relating to manual handling loads relevant to own area of operations
- K37 the physical layout of the port area, relevant to own area of operations
- K38 the principal types of cargo handling equipment used on Ro/Ro vessels and their specific characteristics
- K39 the operational requirements of haulage vehicles, and the characteristics of trailers and their cargo when being moved
- K40 the **hazards** associated with working on Ro/Ro vessels, and the importance of taking the appropriate precautions
- K41 how changes in environmental conditions can affect loading and discharge operations from Ro/Ro vessels
- K42 the characteristics of vessels, ramps and vehicles used for cargo handling operations within Ro/Ro vessels, and are aware of the principal types of **hazards** that can occur and the precautions appropriate to addressing these **hazards**
- K43 the principal types of bulk liquid handling equipment, their operating capabilities and specific characteristics
- K44 the implications of back pressure and its significance in relation to pipeline systems
- K45 procedures for flushing and pigging lines

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## Undertake cargo handling operations

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- K46 the principal characteristics of the main types of liquid bulk cargo, including their nature and weight and whether they are hazardous or non-hazardous
- K47 organisational policies and procedures relevant to liquid bulk operations
- K48 organisational procedures relating to meeting legislative requirements regarding operating equipment for moving bulk liquids, and are aware of the relevant sections of this legislation
- K49 the physical layout of the port area, relevant to your area of operations
- K50 the organisation's high level alarm systems and their impact on operations
- K51 the organisation's emergency shutdown arrangements, and own role within these

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## Undertake cargo handling operations

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### Additional Information

#### Scope

1. **Hazard:** something with potential to cause harm
2. **Risk:** a risk is the likelihood of the hazard's potential being realised
3. **Requirements relevant to cargo handling should include:** dry and liquid bulk, cargo transport unit, roll-on/roll-off

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## Undertake cargo handling operations

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# PSSPO102

## Move loads using lifting and handling equipment



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### Overview

This standard covers the competence required to handle loads using various types of lifting equipment. This will include moving loads using fork lift trucks and other mobile lifting equipment; moving containers using shore based lifting equipment and moving loads by crane. In addition to this, the standard covers the planning and implementing a lifting plan to handle large awkwardly shaped loads and very heavy loads which requires specialised handling. It also includes transferring loads using ship's gear, such as a crane and handling dry bulk cargo using automated equipment.

### Target Group

This standard applies to port workers who are required to handle loads using lifting equipment

There are 6 elements in this standard:

1. Move loads using mobile lifting equipment
2. Move containers using shore based lifting equipment
3. Lift and position loads by crane
4. Transfer loads using ships gear
5. Handle dry bulk cargo using automated equipment
6. Trim and clean out dry bulk cargo

# PSSPO102

## Move loads using lifting and handling equipment

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### Performance criteria

*You must be able to:*

#### Move loads using mobile lifting equipment

- P1 confirm that loads are suitable, safe and stable for handling by mobile lifting equipment before beginning the lift
- P2 check for and remove any obstructions on the route of the lift before beginning operations
- P3 where necessary, select attachments suitable for the load being handled, and ensure that these are adjusted and fit for use
- P4 ensure that the mobile lifting equipment and any attachments are operating properly before beginning the lift and are suitable for the lift
- P5 lift all loads evenly and safely, and where a fork lift is used, locate the forks into the designated slots wherever appropriate
- P6 handle loads taking due care to avoid damaging loads at all times
- P7 manoeuvre the fork lift safely, taking into account the capabilities and limitations of the attachment, and the activities and whereabouts of individuals within the vicinity of the lifting operation
- P8 monitor attachments during lifting operations to confirm that they are operating in accordance with standard operating procedures
- P9 take immediate and appropriate actions to address any difficulties and hazards during fork lift operations
- P10 where authorised to do so, remove attachments upon completion of lifting operations, and ensure they are store in good condition

#### Move containers using shore based lifting equipment

*You must be able to:*

- P11 identify the containers to be moved and their destination
- P12 use the correct type of lifting equipment, and any attachments where applicable, taking into account the type of operation, the dimensions and location of the container, and the planned work area
- P13 check and ensure that all operating functions are working properly before beginning handling operations
- P14 check for and remove any obstructions on the route of the lift before beginning operations
- P15 establish contact and agree the protocol for the handling operations with all those involved, using appropriate methods and prior to moving the container
- P16 ensure all of communications, by hand and radio, are in line with the protocol and procedures agreed
- P17 operate the shore-based equipment safely and efficiently ensuring that manoeuvring allows for containers to be moved safely and effectively to required destinations
- P18 ensure that the required number of lock devices are deployed, when loading to road or rail
- P19 lift all loads evenly and safely, and where a fork list is used, locate the

# PSSPO102

## Move loads using lifting and handling equipment

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- forks into the designated slots wherever appropriate
- P20 handle cargo safely and securely, taking due care to avoid damaging cargo at all times
- P21 monitor all activities and the whereabouts of individuals within the vicinity of your operations, and take immediate and appropriate actions to address dangerous situations
- P22 when loading to road trailers, ensure that the driver is in the designated place of safety in accordance with organisational procedures
- P23 carry out close-down procedures upon completion of the moving operations, in line with the manufacturers' requirements, where authorised to do so, removing attachments safely and properly, and ensure they are stored in good condition
- P24 address and report immediately any faults or difficulties with the moving operations or the materials used
- P25 ensure all equipment is left clean and secure

### **Lift and position loads by crane**

*You must be able to:*

- P26 assess the characteristics of the load to be lifted, identifying where special attachments are required, and ensuring that these are fitted before beginning the lift
- P27 use the correct type of crane, confirming that it has the capacity outreach, for the lifting operation required in advance of beginning the lift
- P28 position and set up the crane, and check and ensure that all operating functions are working before beginning the lift
- P29 establish contact and agree the protocol for the lift with all others involved in the operation using appropriate methods and prior to beginning the lifting operation
- P30 operate the crane efficiently and safely, taking due care to avoid contact with the load's unit/vessel's superstructure and port infrastructure
- P31 follow the agreed lifting plan
- P32 carry out close-down procedures upon completion of the lifting operation, in line with the organisation's requirements
- P33 address and report immediately faults or difficulties with the lifting operations or the materials used

### **Transfer loads using ships gear**

*You must be able to:*

- P34 confirm with the responsible person that the ship's gear provided is suitable for the lifting operation required, taking into account the capabilities of the gear, the characteristics and location of the load, its destination and the planned work area
- P35 confirm with the responsible person that documentation, including test certificates, relating to the equipment is in order, referring any queries before beginning handling operations

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## Move loads using lifting and handling equipment

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- P36 familiarise yourself with the controls, and check and ensure that all operating functions are working safely before beginning handling operations, addressing any queries or faults
- P37 establish contact and agree the protocol for transferring the load with all others involved prior to beginning the operation
- P38 ensure all communications, by hand and radio, are in line with the protocol and correct procedures agreed
- P39 operate ships' gear efficiently and safely, and ensure that the ship's stability is maintained
- P40 monitor all activities and the whereabouts of individuals and other vessels within the vicinity of the operations, and take immediate and appropriate actions to address dangerous situations

### **Handle dry bulk cargo using automated equipment**

*You must be able to:*

- P41 establish the characteristics of the cargo to be transferred and confirm that the cargo is suited for handling by the automated equipment
- P42 check and ensure that all operating functions are working properly before handling the cargo
- P43 take immediate and appropriate actions to address any difficulties relating to the equipment, cargo or working environment
- P44 operate the automated equipment efficiently and safely
- P45 load/unload the cargo in accordance with instructions provided
- P46 establish and maintain contact with all those involved and affected by the operation
- P47 upon completion, ensure all equipment is stored securely, and in good condition
- P48 report any defects or problems with equipment

### **Trim and clean out dry bulk cargo**

*You must be able to:*

- P49 confirm that the self-drive plant to be operated is suitable for the task, taking into account the type of operation, the nature of the cargo and the nature and condition of the vessel's hold
- P50 check and ensure that all operating functions are working properly before entering the hold
- P51 identify any other equipment required and confirm that it is available before commencing operations
- P52 establish with the responsible person that it is safe to enter the hold prior to commencing operations
- P53 access and egress the hold according to own organisation's procedures
- P54 where necessary, position and prepare plant ready to be lifted into the hold
- P55 trim dry bulk cargo that has been loaded already, ensuring that it is levelled in accordance with standard operating procedures

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### Move loads using lifting and handling equipment

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- P56 support the unloading of dry bulk cargo using appropriate methods agreed before beginning the operation
- P57 establish and maintain clear precise contact with all others involved in the operation
- P58 report any difficulties identified to the relevant person
- P59 monitor all activities and the whereabouts of pedestrians and other plant vehicles within the vicinity of your operation, taking immediate and appropriate actions to address dangerous situations
- P60 store all plant and equipment securely and in good condition upon completion of the work

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## Move loads using lifting and handling equipment

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### 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, relevant to handling loads using lifting equipment
- K3 current industry guidance relevant to lifting equipment operations
- K4 own organisation's policies, procedures and working practices relevant to operations using lifting equipment
- K5 the operating procedures, capabilities (including manoeuvring characteristics) and limitations of the types of lifting equipment within own area of responsibility
- K6 the pre-start maintenance requirements, including the correct procedure for checking lubricants and other fluids of lifting equipment within own area of responsibility
- K7 why it is important to report any faults and defects prior to commencing operations
- K8 the organisational procedures for reporting and documenting equipment faults, tests and checks
- K9 the implications of operating equipment that is unsafe or that has been serviced poorly
- K10 the types of load that may be lifted by each type of lifting equipment within own area of responsibility
- K11 the factors that can affect the stability and security of loads when they are being transferred, and how these can be affected by environmental conditions
- K12 the methods of slinging and un-slinging loads, including angles of operations and what constitutes a safe working load
- K13 the capabilities, including capacity and strength of the principal types of slinging and lashing materials, and the implications of using defective or faulty materials
- K14 how to interpret organisation coding systems relating to lifting equipment, and how to interpret the information found on load labels and documentation
- K15 the signalling procedures and techniques used in the organisation
- K16 the speed limits specified for equipment operating within the port environment, the importance of operating within these limits, and of maximising the safety of pedestrians and other drivers
- K17 the limits of own responsibility and to whom to report if these are exceeded
- K18 the requirements placed upon the individual and the organisation by current legislation, relevant to trimming and cleaning out cargo and the importance of ensuring that necessary precautions are taken
- K19 current industry guidance relevant to trimming and cleaning operations
- K20 own organisation's policies, procedures and working practices relevant to trimming and cleaning operations
- K21 the operating procedures, capabilities (including manoeuvring characteristics) and limitations of the types of trimming and cleaning equipment within own area of responsibility
- K22 the pre-start maintenance requirements, including the correct procedure for checking lubricants and other fluids of trimming and

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## Move loads using lifting and handling equipment

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- cleaning equipment within own area of responsibility
- K23 how to check air purity and what constitutes a safe level
- K24 the principal characteristics of the main types of cargo, and the associated hazards

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## Move loads using lifting and handling equipment

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### Additional Information

#### Scope

1. **Hazard:** something with potential to cause harm
2. **Risk:** a risk is the likelihood of the hazard's potential being realised

# PSSPO102

## Move loads using lifting and handling equipment

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## Overview

This standard covers the competence required to drive shore based vehicles. It includes the operating of tractor units, light vehicles such as cars or vans and also heavy vehicles including excavators, military vehicles, mobility cranes and special purpose vehicles on shore and on and off Ro/Ro vessels. This standard also covers trimming or cleaning out cargo holds using self-drive plant such as bulldozers , skid-steer loaders, vibro-rigs or similar types of mobile plant and excavator type machines

### Target Group

This standard applies to port workers who are authorised to drive shore based vehicles

There are 3 elements in this standard:

1. Drive shore-based tractor units
2. Drive tractor vehicles within Ro/Ro vessels
3. Drive light vehicles on and off Ro/Ro vessels

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## Drive shore based vehicles

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### Performance criteria

#### Drive shore-based tractor units

*You must be able to:*

- P1 confirm that the tractor unit and any attachments according to own organisation's procedures are in a serviceable condition and safe to drive, performing all essential checks before beginning operations
- P2 fit attachments/trailers in line with organisation's instructions
- P3 deal with any difficulties or faults with the tractor unit and attachments
- P4 drive the tractor unit carefully and efficiently, within specified speed limits, ensuring that no damage occurs to the tractor unit, trailer and cargo
- P5 monitor and take into account other vehicles, individuals and the ground conditions within own vicinity, ensuring that safety is maintained at all times
- P6 identify the cargo to be handled and move it to the designated position safely, ensuring that it is secure before moving it
- P7 turn off the engine and apply the park brake when the tractor unit is parked
- P8 park trailers safely and only within designated spaces, and allowing sufficient space for appropriate associated manual operations
- P9 ensure that upon completion, tractor units and attachments are stored safely and securely, and in good condition
- P10 identify and report all faults in equipment and any damage to the responsible person

#### Drive tractor vehicles within Ro/Ro vessels

*You must be able to:*

- P11 assess the gradients, widths and height limitations of all slopes and ramps to be negotiated in moving in, on and off the vessel, and also the weight and nature of the cargo, confirming that the tractor unit is suitable for manoeuvring the cargo trailer within the vessel
- P12 deal with any difficulties or faults with the tractor unit, and its use within the vessel
- P13 establish and maintain contact with all relevant persons on-shore and within the vessel, ensuring that they are aware of your operations
- P14 monitor the activities and the whereabouts of individuals and other vehicles within the vicinity of own operation, and take immediate and appropriate actions to address dangerous situations
- P15 manoeuvre the tractor unit and trailer safely and efficiently, on/off and within the Ro/Ro vessel, ensuring that no damage occurs to the tractor unit, trailer, other vehicles and the vessel
- P16 follow ramp segregation procedures when driving on ramps
- P17 ensure that exits and passageways within the vessel remain clear
- P18 identify the cargo to be handled and move it to the designated

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## Drive shore based vehicles

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position

- P19 turn off the engine when the tractor unit is parked
- P20 park trailers safely and only within designated spaces, and allowing sufficient space for appropriate associated manual operations
- P21 ensure that upon completion, tractor units are stored safely and securely, and in good condition

### **Drive vehicles on and off Ro/Ro vessels**

*You must be able to:*

- P22 identify the vehicles to be moved and their destination
- P23 familiarise yourself with the controls, addressing any queries before driving
- P24 ensure that where the vehicle is unable to be operated safely, it is referred to own supervisor, leaving the vehicle stationary in a safe condition
- P25 undertake your own organisation's 'pre-drive' vehicle check prior to driving the vehicle
- P26 drive vehicles safely and efficiently according to own organisation's procedures, within specified speed limits on/off and within Ro/Ro vessels, ensuring that no damage occurs to the vehicles, other equipment and the vessel
- P27 assess the weight, dimensions and manoeuvrability of the vehicle, confirming that it can be driven on/off the vessel, and where necessary, arrange for any special equipment and assistance to be provided before driving commences
- P28 ensure that all lashings are removed and check for and remove any obstructions or hazards on the route to be followed before moving the vehicle on/off the vessel
- P29 check and confirm that no damage has occurred during transit or storage, and that the vehicle is ready to be moved, including, where the vehicle is to be moved off the vessel, that all lashings are removed
- P30 ensure that the designated routes are followed at all times
- P31 monitor the activities and whereabouts of pedestrians and other vehicles within the vicinity of own operations, and take immediate and appropriate action to address dangerous situations
- P32 ensure when driving a tracked vehicle, and where necessary, assistance is obtained to lay dunnage, ropes or rubber mats
- P33 obtain marshalling assistance where necessary
- P34 turn off the engine when the vehicle is parked
- P35 park vehicles safely and only within designated areas, ensuring that the vehicles are secure with keys stored in accordance with organisational procedures
- P36 report any damage to vehicles to the relevant person
- P37 wear the appropriate personal protective equipment at all times whilst driving the vehicles

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## Drive shore based vehicles

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### Knowledge and understanding

*You need to know and understand:*

- K1 the legal responsibilities for maintaining own and others' health and safety in the workplace
- K2 the requirements placed upon the individual and the organisation by current legislation, relevant to driving vehicles in own area of operations
- K3 current industry guidance relevant to driving vehicles in own area of operations
- K4 own organisation's policies, procedures and working practices relevant to driving vehicles in own area of operations including on and off vessels
- K5 the operating procedures, capabilities (including manoeuvring characteristics) and limitations of the types of vehicles within own area of operations
- K6 own organisation's pre-start checks, the correct procedures for checking lubricants and other fluids and why it is important to report any faults and defects prior to commencing operations
- K7 own organisational procedures for reporting and documenting vehicle faults, tests and checks
- K8 the implications of operating a vehicle that is unsafe or that has been serviced poorly
- K9 the preparation and operational requirements of haulage vehicles
- K10 the characteristics of trailers and their cargo when being moved
- K11 the factors that can affect the stability and security of cargo when it is being transferred, and how these can be affected by environmental conditions
- K12 the principal characteristics of the main types of cargo, including their nature, weight and associated hazards
- K13 safe manual handling, and lifting techniques, the kinetics involved, and the importance of using these techniques properly
- K14 the physical layout of the port area, relevant to own area of operations
- K15 how changes in environmental conditions can affect loading and discharge operations
- K16 the characteristics of vessels, ramps and vehicles used for cargo handling operations within vessels and are aware of the principal types of hazards that can occur and the precautions appropriate to addressing these hazards
- K17 how to identify and operate the principal controls within vehicles
- K18 how exhaust fumes can accumulate the dangers that they pose, and the precautions to take in addressing the dangers posed
- K19 the speed limits specified for equipment operating within the port environment and the importance of operating within these speed limits

# PSSPO103

## Drive shore based vehicles

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**Developed by** Port Skills and Safety

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**Relevant occupations** Port operations

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**Suite** Port Security Operations

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**Key words** Port security operations; port safety; ports; vessels

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## Overview

This standard covers the competence required to operate port vessels. It is about handling and navigating port craft, under the supervision of a foreman or skipper within a port area. This includes the craft such as launches, survey boats and work boats and also unpowered craft such as dumb barges.

### Target Group

This standard applies to port workers who are required to operate port vessels

There are 3 elements in this standard:

1. Handle port craft
2. Navigate port craft
3. Handle unpowered craft

# PSSPO104

## Operate port vessels

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### Performance criteria

#### Handle port craft

*You must be able to:*

- P1 carry out all pre-sailing checks and, where required, record the outcomes
- P2 inform the relevant person of any difficulties or faults encountered during the pre-sailing checks, recording these as required
- P3 manoeuvre the craft safely, taking into account water depth, the prevailing environmental conditions, other port traffic and port installations
- P4 make appropriate engine and helm movements, which are within their design specification
- P5 stay alert for **hazards** and **risks** of collision at all times, and take the proper corrective action to avoid them
- P6 monitor navigational broadcasts and warnings, taking the appropriate actions in response where necessary
- P7 use anchoring and mooring equipment safely and in accordance with organisational procedures
- P8 report any damage to the craft, any defective equipment, and any difficulties in using the equipment
- P9 ensure that entries in the craft's log are up to date, complete and legible

#### Navigate port craft

*You must be able to:*

- P10 determine the craft's position, course and speed using the available navigation equipment
- P11 set the craft's course and speed using the available equipment and taking into account the current and required position, weather conditions, water depth and currents, tides and the craft's construction
- P12 set up and use the available navigation equipment, in line with recommended practice and the manufacturers' instructions, and interpret the resultant information
- P13 communicate the craft's position, course, speed and destination as required
- P14 report any defective equipment
- P15 monitor navigational broadcasts and warnings, taking the appropriate actions in response where necessary

#### Handle unpowered craft

*You must be able to:*

- P16 identify and obtain the appropriate craft, gear and equipment required to carry out the proposed operations, and confirm that it is in good working order before commencing the work
- P17 check that the craft is seaworthy before commencing operations
- P18 address and report any difficulties and faults encountered, recording these where required

# PSSPO104

## Operate port vessels

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- P20 ensure that all access to the craft is undertaken safely
- P21 ensure that protective and safety clothing is worn at all times by self and other persons within own responsibility
- P22 manoeuvre the craft safely using the recommended manual techniques
- P23 confirm that the craft is moored safely, securely and in the right location for loading and discharge operations
- P24 check the quality of goods being loaded or discharged, reporting any defects
- P25 monitor the trim of the craft during loading/discharging operations, and make the correct allowance for whether the craft is aground or afloat
- P26 ensure where necessary, cargo is secured and covered
- P27 maintain where towing, ropes are secured, ensuring that they can be released quickly in an emergency
- P28 ensure that all persons on board craft being towed are standing in a safe position, and one which allows for any **risks** associated with ropes under tension
- P30 stay alert for **hazards** and the **risks** of collision at all times, and take the proper corrective action to avoid them
- P31 ensure that craft are kept clean, tidy and free of obstructions and that craft is moored safely and securely upon completion of work

# PSSPO104

## Operate port vessels

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### Knowledge and understanding

*You need to know and understand:*

- K1 the legal responsibilities for maintaining own and others' health and safety in the workplace
- K2 the requirements placed upon the individual and the organisation by current international and national legislation, port regulations and bye-laws, as they affect operations within ports, including the importance of the 'International Regulations for the Prevention of Collisions at Sea'
- K3 current industry guidance relevant to port vessel operations
- K4 own organisation's policies, procedures and working practices relevant to port vessel operations
- K5 the operating procedures, capabilities (including manoeuvring characteristics) and limitations of the types of vessel(s) within own area of operations
- K6 the effects of differing engine control positions on twin and single propeller craft
- K7 the effects of different rudder positions on the craft
- K8 the effects of using bow and stern thrusters, where these are fitted
- K9 how to use anchoring and mooring equipment
- K10 the importance of keeping a safe lookout
- K11 the importance of maintaining a safe speed, and the impact of restricted visibility when identifying a safe speed
- K12 the meaning of alarms on board vessels
- K13 how to interpret tidal and weather information and how different types of adverse weather can impact upon vessel movements within port areas
- K14 the importance of applying speed limits and the effect of the craft's speed upon other vessels, property and persons
- K15 the impact of the motion of craft and tidal range upon berthing operations, and the effects of their interaction for other vessels
- K16 the role and responsibilities of those on board the vessels
- K17 organisational procedures for carrying out and recording pre-sailing checks, including those for recording difficulties and faults found
- K18 organisational manoeuvring procedures for craft within the port environment
- K19 the design specifications relating to the use of engines and helm within the craft operated
- K20 workplace procedures for dealing with emergency situations on board craft, including person overboard
- K21 local geography and water conditions, including navigable channels and tides, and their impact upon manoeuvring craft within own port
- K22 the use and location of safety equipment on board the vessel, including the operation of emergency/bilge pumps and CO2 smothering equipment
- K23 the importance of set and leeway, in setting course and the different types of courses, including true, magnetic, compass and gyro and the

# PSSPO104

## Operate port vessels

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- impact of deviation and variation
- K24 how to select and interpret information within charts and navigation techniques
- K25 how to use electronic navigation aids, such as GPS, chart plotter and radar, and the limitations of navigation equipment
- K26 the use of buoyage systems and navigation lights
- K27 how to use tidal stream atlases, tide tables, Nautical Almanacs and pilot/sailing directions
- K28 organisational procedures for reporting defective equipment
- K29 the organisations requirements relating to recording the movements of craft within own port
- K30 techniques for surviving in the water, techniques for rescuing a person from water and basic first-aid, including resuscitation and the basic recognition and treatment for the onset of hypothermia
- K31 the use of buoyage systems and navigations lights
- K32 procedures for raising fire alarms, and for isolating areas on board vessels
- K33 fire fighting techniques to be used on different types of fire
- K34 the functions of the various parts of unpowered craft, and methods of manoeuvring
- K35 the functions of equipment and structures external to unpowered craft
- K36 the use of fair leads and ropes used on unpowered craft
- K37 the procedures for making up a tow –alongside, astern and pushing, both for single and multiple craft
- K38 how to use towing equipment, and the importance of the equipment's breaking strains
- K39 the principal dangers associated with towing operations and the actions appropriate to minimising these
- K40 organisational requirements for addressing and reporting difficulties and faults in craft, gear and equipment
- K41 organisational procedures for gaining access to craft as they apply to self and any passengers
- K42 the location of, and how to use, the first-aid, safety and emergency equipment within the port

# PSSPO104

Operate port vessels

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## Additional Information

### Scope

1. **Hazard:** something with potential to cause harm
2. **Risk:** a risk is the likelihood of the hazard's potential being realised

# PSSPO104

## Operate port vessels

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**Relevant occupations** Port operations

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**Suite** Port Security Operations

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**Key words** Port security operations; port safety; ports; vessels

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## Overview

This standard covers the competence required to support vessel operations in ports. It covers the berthing of larger vessels within ports, for example, cargo vessels, coasters, cruise ships and ferries. It also covers the positioning of access equipment on vessels to allow passengers to board and/or depart and the routine fuelling, or bunkering of vessels within a port environment.

### Target Group

This standard applies to port workers who are required to support vessel operations

There are 3 elements in this standard:

1. Berth vessels
2. Position access equipment on vessels
3. Fuel vessels

# PSSPO105

## Support vessel operations

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### Performance criteria

#### Berth vessels

*You must be able to:*

- P1 clear all moveable obstructions and potential **hazards** from the relevant area of the quay ahead of the vessel's arrival or departure
- P2 inform the relevant person of any obstructions or **hazards** that cannot be moved readily
- P3 identify and obtain the equipment required for berthing, and confirm that it is in good working order before commencing operations
- P4 identify where ancillary lighting is required and obtain this to ensure safe working
- P5 establish contact and agree berthing arrangements with all of those involved ahead of the operations
- P6 use berthing materials and equipment safely, berthing vessels in line with organisational procedures
- P7 take proper consideration of the prevailing weather and tidal conditions when berthing vessels
- P8 monitor all activities and the whereabouts of individuals within the vicinity of the berthing operations, and take immediate and appropriate actions to address dangerous situations
- P9 address any difficulties or incidents, reporting these as required
- P10 ensure that the quayside is left clean, tidy and free of obstructions upon completion of the berthing

#### Position access equipment on vessels

*You must be able to:*

- P11 ensure that access areas are cordoned off from pedestrians or vehicles until the equipment has been positioned
- P12 identify and obtain access equipment that is compatible with the vessel and safe for use with the associated surfaces used for walking/driving on to and off the vessel
- P13 test all equipment to be used, ensuring that it is safe and suitable for use, and clear of any **hazards**, ahead of the vessel's arrival or departure
- P14 agree the procedure for positioning equipment, and maintain clear communications, with relevant personnel during berthing operations
- P15 position access equipment only when the vessel has completed berthing and when authority from relevant personnel has been given
- P16 position access equipment ensuring that it is above the tidal range and that all safety devices are positioned properly, with any gaps between access equipment and the vessel cordoned off safely
- P17 ensure where repositioning of access equipment is required due to changes in tide, liaison with ship and other relevant personnel is maintained agreeing the repositioning, and ensuring that pedestrian or vehicle access is prevented during the lifting or lowering operation
- P18 obtain authority to remove access equipment from relevant personnel,

# PSSPO105

## Support vessel operations

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and remove the equipment, ensuring that pedestrian or vehicle access is prevented during the operation

P19 take proper consideration of the prevailing weather and tidal conditions at all times

### Fuel vessels

*You must be able to:*

P20 prepare the quay area ensuring that all obstructions and **hazards** are removed, and that relevant safety systems are available and operating properly

P21 cordon off the area and place warning signs, establishing and maintaining a safety boundary in line with best practice and regulatory requirements

P22 deploy spill prevention systems

P23 ensure that all equipment required for an emergency response is immediately available

P24 establish and maintain clear contact with all others involved in the operation, agreeing the protocol for fuelling the vessel prior to beginning operations

P25 identify the equipment required and confirm that it is operating properly before beginning the fuelling operation

P26 connect pipelines properly, assembling flanges and gaskets, and lining up valves, and where possible, position drip trays and bung scuppers

P27 confirm that all connections are leak free before fuelling commences, and monitor the pipelines for leaks at all times

P28 ensure vessels are fuelled safely

P29 calculate the amount and positioning of the fuel to be transferred to the vessel

P30 upon completion of fuelling, confirm that it is safe to disconnect pipelines

P31 disconnect and clean pipelines only when it is safe to do so

P32 deal with any residues and spillages

P33 ensure quay sides are left clean, tidy and free of obstructions

P34 maintain accurate and up to date records of fuel transferred, where required

# PSSPO105

## Support vessel operations

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### Knowledge and understanding

*You need to know and understand:*

- K1 the legal responsibilities for maintaining own and others' health and safety in the workplace
- K2 the requirements placed upon the individual and the organisation by current legislation relevant to supporting vessel operations
- K3 current industry guidance relevant to supporting vessel operations
- K4 own organisation's policies, procedures and working practices relevant to supporting vessel operations
- K5 how tides and different types of adverse weather conditions can impact upon vessel movements within a port area
- K6 the importance of applying speed limits relating to berthing operations of larger vessels
- K7 the correct words and phrases used in describing vessels and their movements within a port area
- K8 the use of hand signals for heave, slack, stop and secure
- K9 how to dip ropes
- K10 the impact of motion and tidal range upon berthing larger vessels, where these apply within the port environment
- K11 workplace procedures for dealing with incidents and emergency situations
- K12 the **hazards** associated with using access equipment on vessels and the importance of taking the necessary precautions to address these
- K13 the purpose and limitations of personal protective equipment (PPE) and life-saving gear for use on or near the water
- K14 how to apply the principal methods of communicating with vessels
- K15 the uses and limitations of access equipment used by own organisation
- K16 the principal types of fuel handling equipment, including pipelines and valves, their operating capabilities and specific characteristics
- K17 the implications of back pressure and its significance in relation to pipeline systems
- K18 the potential **hazards** and related safety precautions applicable during fuelling, including those relating to tank layouts, valve and pipeline systems, the physical properties of fuels and the principal causes of explosions when dealing with fuels
- K19 the basic environmental protection measures to be applied during fuelling operations
- K20 the location of, and how to use, emergency and safety equipment relevant to fuelling vessels, including procedures for addressing oil-based fires
- K21 the physical layout of your port area, relevant to own area of operations

# PSSPO105

## Support vessel operations

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### Additional Information

#### Scope

1. **Hazard:** a hazard is something with potential to cause harm
2. **Risk:** a risk is the likelihood of the hazard's potential being realised
3. **Personal Protective Equipment (PPE):** includes but is not limited to high visibility vests, hard hats, protective clothing, eye/hearing/respiratory protection, gloves
4. **Organisation's policies, procedures and working practices relevant to supporting vessel operation to include:** those for dealing with emergencies when berthing vessels and positioning access equipment and fuelling vessels

# PSSPO105

## Support vessel operations

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---

**Relevant occupations** Port operations

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**Suite** Port Security Operations

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**Key words** Port security operations; port safety; ports; vessels

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## Overview

This standard covers the competence required to support safe navigation within port areas. This includes the assembly, laying and retrieving of navigation buoys, under supervision, as well as mooring for ship tiers and general moorings for yachts and other small craft within an enclosed port area. It also includes establishing the depth of water, under supervision, in navigable channels and other areas, as part of hydrographic surveys. This standard is also about maintaining navigable channels and water areas such as berths within the port area. It includes working under supervision to keep such areas clear of flotsam and other hazards, as well as dredging channels.

It is often necessary for individuals involved in these activities to be competent in handling small craft. The handling of such craft is covered by another standard.

### Target Group

This standard applies to port workers, who under supervision, support safe navigation within port areas

There are 3 elements in this standard:

1. Position moorings and lay buoys
2. Maintain clear channels and water areas
3. Establish water depths

# PSSPO106

## Support safe navigation within port areas

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### Performance criteria

#### Position moorings and lay buoys

*You must be able to:*

- P1 obtain all the equipment necessary for assembly, laying and retrieval operations and confirm that it is in good working order and safe to use
- P2 complete any pre-use test of the lifting equipment according to organisation procedures before leaving the shore
- P3 assemble moorings and buoys safely and within agreed timescales, ensuring that, as required, the mooring is of the right length, the sinker or anchor is of the correct weight, swivels are positioned in accordance with standard operating procedures and shackles are securely housed
- P4 identify the location and water depth where the moorings or buoys are to be positioned, and lay them properly in position
- P5 ensure that the handling of materials and equipment is undertaken with care to avoid undue wear and tear
- P6 refer any operational difficulties and defects in equipment to the relevant person
- P7 ensure that craft and other work areas are kept clean, tidy and free of obstructions
- P8 ensure that all required records are maintained and up to date

#### Maintain clear channels and water areas

*You must be able to:*

- P9 undertake regular visual and hydrographic inspections of the port's navigable channels
- P10 respond to reports of obstructions
- P11 report actual and potential obstructions or **hazards** in navigable channels
- P12 identify, and obtain, the appropriate gear and equipment required to carry out clearance operations, and confirm that it is in good working order before leaving the shore
- P13 establish and confirm clear communication links with relevant persons before leaving the shore
- P14 ensure that where weather conditions allow, and where required licences or permissions have been granted, obstructions and **hazards** are removed, ensuring that any **risks** to self and others are minimised
- P15 identify the area to be dredged, and operate dredging equipment safely, ensuring that dredging occurs at the required level
- P16 dispose of items and dredged materials removed from the water safely
- P17 report any suspicious items to the relevant person
- P18 upon completion ensure that those working areas above water are clean, tidy and free from obstructions

# PSSPO106

## Support safe navigation within port areas

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### **Establish water depths**

*You must be able to:*

- P19 obtain all of the equipment necessary for establishing the depth of water and confirm that it is fit for purpose before leaving the shore
- P20 identify the areas of water where depth measurements are required, before leaving the shore
- P21 monitor and record the vessel's position continuously, together with the height of the tide, throughout the survey operations
- P22 mark the depth-gauging equipment at regular intervals, and cross-reference it to known positions
- P23 apply accurate corrections in establishing water depths to allow, as necessary, for the vessel's draught, heave, pitch and roll, the depth of the sensor, and the height of the tide, and record these corrections where necessary
- P24 use all equipment in line with manufacturers' instructions, ensuring that it is calibrated, and carrying out all recommended error checks
- P25 refer any operational difficulties, and defects in equipment, to the relevant person
- P26 identify any variations from charted water depths and report to the relevant person

# PSSPO106

## Support safe navigation within port areas

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### Knowledge and understanding

*You need to know and understand:*

- K1 the legal responsibilities for maintaining own and others' health and safety in the workplace
- K2 the requirements placed upon the individual and the organisation by current legislation relevant to supporting safe navigation within port areas, including that relation to the provision and use of work and lifting equipment
- K3 current industry guidance relevant to supporting safe navigation within port areas
- K4 own organisation's policies, procedures and working practices relevant to supporting safe navigation within port areas, including those for positioning mooring and laying buoys, maintaining clear channels and water areas and establishing water depths
- K5 the purpose and limitations of the components of mooring gear, including, buoys, swivels, anchors, chains, risers and sinkers
- K6 how to test and maintain mooring gear
- K7 how a craft's stability may be affected by lifting operations
- K8 the operation and limitations of the principal types of lifting and hauling gear used in ports
- K9 organisational requirements for addressing and reporting difficulties and faults in craft, gear and equipment
- K10 organisational inspection regime for lifting equipment
- K11 the safe working limits of the equipment used in positioning moorings and laying buoys within own organisation
- K12 the typical types of obstructions and **hazards** found within ports, and methods for dealing with them
- K13 how to interpret weather information and how different types of adverse weather can impact upon craft movements within port areas
- K14 the importance and impact of the relevant legal requirements of the dredging licence and upon dredging operations
- K15 organisational requirements for dealing with reports of **hazards** and obstructions within navigable channels
- K16 the local geography, including advertised water depths, and water conditions, and their impact upon the movement of crafts, obstructions and **hazards** within the port
- K17 how to apply the theory of chart work and navigation techniques appropriate to locating areas within a port
- K18 how to interpret weather information and understand how different types of adverse weather can impact upon vessel movements in port areas, and how heave, pitch and roll can impact upon the transducer head
- K19 buoyage systems and navigation lights
- K20 depth-gauging methods
- K21 how to operate communications, depth measurement, position finding,

# PSSPO106

## Support safe navigation within port areas

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- and tidal measurement equipment used within your port
- K22 organisational procedures for reporting operational difficulties and defects in equipment occurring when establishing the depth of water
- K23 the local geography and water conditions, including navigable channels and tides, and their consequence for establishing water depths

# PSSPO106

Support safe navigation within port areas

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## Additional Information

### Scope

1. **Hazard:** something with potential to cause harm
2. **Risk:** a risk is the likelihood of the hazard's potential being realised

# PSSPO106

## Support safe navigation within port areas

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**Relevant occupations** Port operations

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**Suite** Port Security Operations

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**Key words** Port security operations; port safety; ports; vessels

# PSSPO107

## Operate locks and bridges



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### Overview

This standard covers the competence required to operate locks and bridges. It is about working under supervision to operate entrance locks to enclosed docks within a port. It includes preparing a lock and a bridge for use, monitoring vessels moving through the locks and bridges and undertaking basic maintenance of lock and bridge equipment.

### Target Group

This standard applies to port workers who are required to operate locks and bridges

There are 2 elements in this standard:

1. Operate lock systems
2. Operate bridges

# PSSPO107

## Operate locks and bridges

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### Performance criteria

*You must be able to:*

#### Operate lock systems

- P1 ensure that the quay area at the sides of the lock pit, and the water area within the lock, are clear of obstructions and **hazards** before a vessel is accepted into the lock
- P2 confirm that winches, capstans and sluices are operating properly before a vessel is accepted into the lock
- P3 establish and maintain clear and constant contact with the relevant person on the vessel ahead of and during its passage through the lock
- P4 provide clear instructions to vessels entering the lock as to where they must stop, confirming that these instructions are understood
- P5 ensure where required, mooring lines from the vessel are secured safely and securely at the correct locations, with proper allowance made for wind conditions and changes in water level
- P6 use fenders effectively and safely
- P7 identify and report immediately any **risk** to a vessel's safe movement through the lock
- P8 operate all equipment safely and carefully, minimising the likelihood of damage to equipment and vessels
- P9 report any damage to vessels, lock walls, gates or other equipment
- P10 refer any difficulties during lock operations immediately to the relevant person

#### Operate bridges

*You must be able to:*

- P11 prevent all pedestrians and traffic from using the bridge ahead of allowing a vessel through
- P12 ensure that the bridge is clear of all pedestrians, traffic and any obstructions before commencing movement of the bridge
- P13 ensure that the quay area at the sides of the bridge, and the water area under the bridge, are clear of obstructions and **hazards** before a vessel passes through
- P14 confirm that bridge operating equipment is working properly before a vessel is accepted to pass through
- P15 establish and maintain clear and constant contact with the relevant person on the vessel ahead of and during its passage through the water crossed by the bridge
- P16 provide clear instructions to vessels approaching and passing through as to how to proceed and where they must go, confirming that these instructions are understood
- P17 move the bridge fully and ensure vessels have clear access before instructing vessels to proceed
- P18 identify and report immediately any risk to a vessel's safe movement through the water crossed by the bridge

# PSSPO107

## Operate locks and bridges

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- P19 operate all equipment safely and carefully, minimising the likelihood of damage to equipment and vessels
- P20 return the bridge fully to its normal position and ensure that it is secured before allowing pedestrians and traffic to cross
- P21 report any damage to vessels, bridge or other equipment
- P22 refer any difficulties during bridge operations to the relevant person

# PSSPO107

## Operate locks and bridges

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### Knowledge and understanding

*You need to know and understand:*

- K1 the legal responsibilities for maintaining own and others' health and safety in the workplace
- K2 the requirements placed upon the individual and the organisation by current legislation, relevant to operating bridges and lock systems, in own area of operations
- K3 current industry guidance relevant to operating bridges and lock systems, in own area of operations
- K4 own organisation's policies and procedures and working practices operating bridges and lock systems, in own area of operations
- K5 the operating capabilities and limitations of the operating bridges and lock systems, in own area of operations
- K6 the principal terminology and mechanical principles associated with the operation of locks and bridges in ports
- K7 the principal methods for communicating with vessels
- K8 the impact of the motion of vessels and tidal range upon lock and bridge operations in ports
- K9 the organisational requirements for addressing and reporting difficulties, or equipment faults, associated with lock and bridge operations
- K10 the workplace procedures for dealing with incidents and emergency situations associated with operating locks and bridges and the passage of vessels through them
- K11 the importance of closing lock gates properly and the impact of not doing so upon lock levels, and the procedures for addressing such an emergency should this occur
- K12 the local geography and water conditions, including navigable channels and tides, and their impact upon the passage of vessels through locks and bridges

# PSSPO107

Operate locks and bridges

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## Additional Information

### Scope

1. **Hazard:** something with potential to cause harm
2. **Risk:** a risk is the likelihood of the hazard's potential being realised

# PSSPO107

## Operate locks and bridges

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**Relevant occupations** Port operations

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**Key words** Port security operations; port safety; ports; vessels

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## Overview

This standard covers the competence required to provide support and information to passengers. It applies to anyone who has first line contact with customers within a port. This could be dealing with customer problems, ensuring the safe transfer of passengers to and from vessels, and assisting with enquiries. This standard also covers controlling vehicle movements within a port, using direction signs and marshalling techniques. Vehicles may arrive at the port by road, rail or from a vessel. It is also about the safe transfer of passengers to outlying islands, or in larger ports, to river piers, which includes assisting to berth the vessels and providing gangways for passengers.

This standard also covers the competence required to process travel documents. It is about checking and processing the travel documents of people arriving at ports. Such people can, include passengers and freight drivers. Travel documents can therefore include tickets, passports, delivery and related papers.

This standard also covers the competence required to process luggage. It is about identifying, sorting and moving the baggage of passengers arrive at ports. It is important that passengers' baggage is identified, sorted and moved on correctly and in an efficient manner to ensure the security of the port.

### Target Group

This standard applies to port workers who are required to undertake passenger vessel operations.

There are 6 elements in this standard:

1. Give customers a positive impression of yourself and your organisation
2. Control vehicle movements
3. Resolve customer service problems
4. Transfer passengers to/from small vessels
5. Process travel documents
6. Process baggage

# PSSPO108

## Passenger vessel operations

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### Performance criteria

#### Give customers a positive impression of yourself and your organisation

*You must be able to:*

- P1 meet the organisation's standards for appearance and behaviour
- P2 greet customers in a way that is appropriate to their needs
- P3 identify and confirm the needs and expectations of customers
- P4 maintain communication with customers by ensuring that they are kept informed and reassured
- P5 respond appropriately to customers who indicate that they need or want attention
- P6 check with the customer that their needs and expectations are fully understood
- P7 locate information that will help the customer
- P8 give customers the information that they need about the service offered by the organisation
- P9 recognise information that customers might find complicated and check whether they understand fully
- P10 explain clearly to customers any reasons why their needs or expectations cannot be met

#### Control vehicle movements

*You must be able to:*

- P11 plan for anticipated vehicle movements within the port, ahead of their arrival
- P12 identify and obtain all relevant information appropriate to preparing for the movement of vehicles
- P13 confirm that vehicle access routes are clear, with direction signage placed visibly, and any ramps or linkspans secure and safe for use, ahead of vehicle arrivals
- P14 confirm that the required public services and facilities to assist effective vehicle movements are in place
- P15 direct drivers to the proper locations, maintaining a smooth traffic flow, and ensure that vehicles are positioned and segregated
- P16 monitor traffic movement, identifying areas of potential and actual congestion, and address these
- P17 check that traffic movement complies with the organisation's policy and statutory requirements
- P18 report to the relevant person any difficulties in preparing for, and in managing the movement of vehicles through the port
- P19 here required, direct vehicle movements using hand signals
- P20 identify drivers needing assistance, and approach and offer help in a professional manner whilst avoiding causing undue delay to other vehicles
- P21 ensure any actions are designed to maintain the safety and security of own self, drivers, their passengers and other port users at all times,

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## Passenger vessel operations

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being in line with the organisation's policies and procedures relating to security and the safe and efficient movement of vehicles

### Resolve customer service problems

*You must be able to:*

- P22 gather and interpret information from customers about problems which they have raised asking the appropriate questions to check understanding of their problems
- P23 identify repeated problems and alert the appropriate authority
- P24 share customer feedback with others to help identify potential problems before they occur
- P25 work independently, or with others, to identify problems with systems and procedures before they begin to affect customers
- P26 identify available options for resolving customer service problems
- P27 consult with others to identify and confirm the options available to resolve those problems
- P28 work out the advantages and disadvantages of each option and select the best overall option for the customer and organisation
- P29 discuss and agree the proposed option for solving the problems with customers and take action to implement the option
- P30 work with others and customers to make sure that any commitments related to solving the problem are kept
- P31 keep customers fully informed about what is happening to resolve problems
- P32 check with the customer to make sure the problem has been solved to their satisfaction giving clear reasons to the customer when the problem has not been resolved to their satisfaction

### Transfer passengers to/from small vessels

*You must be able to:*

- P33 ensure that public and working areas are clean, tidy and free from obstructions and **hazards** ahead of the vessel's arrival or departure
- P34 identify and obtain the equipment required for berthing and for transferring passengers, and confirm that it is in good working order before commencing operations
- P35 establish and maintain clear communications with relevant personnel during berthing operations and whilst transferring passengers
- P36 maintain a tidy and smart appearance, wearing the appropriate clothing
- P37 transfer passengers following the proper berthing procedures for vessels
- P38 take proper consideration of the prevailing weather and tidal conditions
- P39 where necessary, deal with any incidents or accidents to passengers, reporting these to the relevant person

### Process travel documents

*You must be able to:*

- P40 check that individuals' travel documents are complete, up to

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## Passenger vessel operations

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- date and valid for the journey being undertaken
- P41 ensure that any discrepancies in the travel documentation are identified and addressed referring them to the appropriate authority where necessary
- P42 ensure only individuals with complete and correct travel documentation are permitted to enter restricted areas
- P43 provide individuals with onward directions for their next part of the journey through the port

### **Process baggage**

*You must be able to:*

- P44 assess baggage to be processed, identifying its destination and any factors that require special attention when processing
- P45 ensure that any damaged, unlabelled, unaccompanied, or suspect baggage are dealt with
- P46 ensure any baggage requiring security assessment is referred immediately to the relevant authority
- P47 ensure that baggage is moved on time to the correct location using the most suited method of transport
- P48 ensure that all care is taken to avoid causing damage to baggage being processed
- P49 handle heavy baggage safely, following organisational procedures
- P50 handle any damaged or awkwardly shaped baggage carefully and securely
- P51 report any lost, unclaimed or damaged baggage
- P52 monitor all activities and the whereabouts of individuals within the vicinity of the operations, and take appropriate action to address any unsafe situations

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## Passenger vessel operations

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### Knowledge and understanding

*You need to know and understand:*

- K1 what customers' rights are and how these rights limit what can be done for the customer
- K2 the specific aspects of, health and safety, data protection, equal opportunities, and disability discrimination, and legislation and regulations that affect the way the products or services you deal with can be delivered to your customers
- K3 industry, organisational and professional codes of practice and ethical standards that affect the way the products or services dealt with can be delivered to your customers
- K4 contractual agreements that customers may have with the organisation
- K5 the products or services of the organisation relevant to a customer service role
- K6 the guidelines laid down by the organisation that limit what can be done within your job role
- K7 limits of own authority and when it is necessary to seek agreement with or permission from others
- K8 any organisational targets relevant to own job role and the implications for the organisation if those targets are not met
- K9 how to communicate in a clear, polite, confident way and why this is important
- K10 how to recognise when a customer is angry and confused
- K11 organisational standards for appearance and behaviour
- K12 organisational guidelines for recognising customers' needs and expectations and responding to them
- K13 the rules and procedures regarding the methods of communication used
- K14 the factors that could constitute a **risk** to safety, including **hazards** and obstructions to passenger movement and other port operations
- K15 the importance of ensuring that directions provided to passengers are correct and accurate
- K16 the procedures and techniques for communicating using hand signals
- K17 how to communicate and listen actively, including how to seek feedback to confirm understanding
- K18 how to identify vehicle destinations and how to interpret the principal traffic signs found within a port
- K19 the organisation's policies and procedures relating to passenger operations, including those addressing legislative requirements regarding 'safe practice' and the movement of pedestrians and vehicles, and be aware of the relevant sections of this legislation
- K20 the organisation's procedures for dealing with vehicle breakdown
- K21 the organisation's policy and procedures relating to maintaining security within own area of operations

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- K22 the organisation's procedures for accessing further information, assistance and specialist support
- K23 the procedures and techniques for using communication equipment according to your organisation's requirements
- K24 the limits of own authority and responsibility and to whom to refer in situations where these are exceeded
- K25 how to comply with organisational requirements relating to traffic management, including the response to traffic congestion in the port area
- K26 organisational emergency plans and procedures, the roles and responsibilities of those involved, and the resources available for dealing with incidents
- K27 the physical layout of your port area, relevant to own area of operations
- K28 the purpose and limitation of personal protective equipment and life-saving gear for use on or near water
- K29 how to apply the principal methods for communicating with small vessels
- K30 organisational procedures for berthing small vessels
- K31 organisational procedures for transferring passengers
- K32 organisational procedures for identifying and dealing with safety **risks** and incidents associated with transferring passengers to/from small vessels
- K33 the location of, and how to use, first-aid, safety and emergency equipment within the port
- K34 the principal types of travel documents and associated papers and how to validate these, and address any discrepancies
- K35 organisational procedures for storing unaccompanied baggage, and for dealing with awkward-shaped, damaged, unclaimed or suspect baggage
- K36 how other port operations may impact upon the baggage handling process
- K37 organisational procedures for identifying, sorting and moving baggage
- K38 organisational procedures for storing unaccompanied baggage, and for dealing with awkward-shaped, damaged, unclaimed or suspect baggage

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## Passenger vessel operations

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### Additional Information

#### Scope

1. **Hazard:** a hazard is something with potential to cause harm
2. **Risk:** a risk is the likelihood of the hazard's potential being realised
3. **Relevant information appropriate to preparing for the movement of vehicles, should include:** sailing times, vehicle numbers, the vessel's berth and details relevant to onward travel arrangements

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## Passenger vessel operations

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**Developed by** Port Skills and Safety

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**Version number** 1

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**Date approved** January 2013

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**Indicative review date** January 2016

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**Validity** Current

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**Status** Original

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**Originating organisation** Skills for Logistics

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**Original URN** PSSPO108

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**Relevant occupations** Port operations

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**Suite** Port Security Operations

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**Key words** Port security operations; port safety; ports; vessels

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## Overview

This standard is about working effectively to maintain own and others' health, safety and security within your own area of operations in the port environment. There is a duty on the individual to take reasonable care for the health and safety of themselves and of other persons who may be affected by their acts or omissions at work. This standard includes: complying with health and safety systems and procedures, identifying hazards, evaluating the levels of the different risks in your workplace, monitoring activities around you, and taking relevant precautions to address the risks identified.

This standard also addresses particular hazards that might be present in a port. It includes working near water, and includes assessing the risks involved and taking precautionary actions as well as following the correct procedures when in the water, and/or retrieving another person from the water. The standard is also about assessing whether particular work can safely be undertaken by a lone worker, and then working safely when performing such tasks. This standard is also about working safely at heights, on land or when working aboard a vessel. It includes assessing the risks involved, taking all suitable precautions and following the correct procedures. This standard is also about working safely in a confined space as defined in legislation. Such spaces, for example, may include the hold of a vessel or the inside of a freight container. This standard includes assessing risks and taking suitable precautions including adequate ventilation and safe access. Working practices in confined spaces are regulated and should be undertaken only where strictly necessary.

### Target Group

This standard applies to workers and others entering a port environment. There is a duty on everyone to work safely at all times within a port environment, whether they are working around cargo, within a port or harbour or with members of the general public.

There are 7 elements in this standard:

1. Work safely
2. Work safely with dangerous cargo
3. Work safely near water
4. Work safely when alone
5. Work safely at heights
6. Work safely in confined spaces
7. Maintain security in ports

# PSSPO109

## Work safely and securely in ports

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### Performance criteria

#### Work safely

*You must be able to:*

- P1 comply with the organisation's procedures and all relevant **legal, safety and operating requirements** relating to health and safety
- P2 provide support to **colleagues** to check that health, safety, and security procedures are followed at all times
- P3 use **personal protective equipment**
- P4 identify and assess health and safety hazards and risks
- P5 take immediate action to prevent injury or damage, and give priority to the protection of people over organisational performance
- P6 respond to incidents affecting health and safety by using the appropriate **safety equipment** and carrying out the safety procedures specified by the organisation
- P7 identify when it is necessary to evacuate the workplace, and use the approved escape routes and assembly points
- P8 report accidents and near misses to the responsible person and record them within the limits of own authority

#### Work safely with dangerous cargo

*You must be able to:*

- P9 assess cargo, including containers, for the potential hazard of fumigant and other dangerous substances
- P10 check documentation relating to cargo to be moved, and identify whether dangerous materials are declared, establishing the nature and quantity of any such cargo
- P11 check labelling and signage on cargo to be moved, identifying the nature of any dangerous cargo present
- P12 carry out gas tests ahead of entering containers suspected of being oxygen deficient or of containing fumigants or other noxious gas
- P13 ensure when unloading containers suspected of containing noxious gas, they are ventilated and unload the contents progressively inwards across the face of the cargo, allowing enclosed air within the container to vent
- P14 load dangerous cargo according to agreed loading plans, ensuring that it is labelled in accordance with operational procedures

#### Work safely near water

*You must be able to:*

- P15 follow organisational procedures and safe working practices at all times when working near water
- P16 maintain work areas ensuring that these are kept clean, tidy and free of obstructions and tripping hazards, with necessary barriers in place and in good working order
- P17 ensure that provided life-saving equipment (such as life jackets) and other personal protective equipment (PPE) are worn in line with organisational procedures
- P18 ensure that all relevant life-saving equipment is positioned in accordance with organisational procedures
- P19 identify and report all visible defects in relevant life-saving equipment
- P20 follow approved survival techniques when in water, including attracting attention using the available equipment properly

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## Work safely and securely in ports

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- P21 raise the alarm immediately upon becoming aware of anyone in the water, and follow emergency procedures and guidelines
- P22 provide all relevant information regarding the emergency to the appropriate authorities
- P23 where appropriate, when manoeuvring rescue boats, pay appropriate regard to good seamanship practice and the safety of the person in the water
- P24 use the correct equipment properly when attempting to retrieve a person from water
- P25 inspect and maintain all relevant life-saving equipment in accordance with own level of responsibility

### Work safely when alone

*You must be able to:*

- P26 assess the risks and potential hazards associated with the lone working task to be undertaken, taking into account the working environment, method, equipment and skills required
- P27 work alone only where it is agreed with the line manager and is safe to do so; ensuring that at least one person knows the task is taking place and the schedule for completion
- P28 agree with line manager the steps to be taken in completing the tasks safely, a suitable procedure for maintaining contact and a schedule for completing the tasks
- P29 ensure, where possible, that frequent contact with relevant colleagues is maintained and that working alone in a confined space is not permitted
- P30 work safely at all times, taking all relevant precautions
- P31 inform relevant people once the task has been completed
- P32 ensure work areas are left clean, tidy and free of obstructions

### Work safely at heights

*You must be able to:*

- P33 undertake the work according to an agreed plan
- P34 assess the risks associated with the task to be undertaken, taking into account the potential dangers of falling, of dropping tools and debris, the stability of ladders, the working area, any overhead cables and equipment, and other people in the vicinity
- P35 take proper precautions to address all risks identified
- P36 wear suitable personal protection equipment, including, where relevant, a full body harness, ensuring that these are in good condition and functioning properly
- P37 ensure that safety barriers are in place around the working area
- P38 ensure that a permit to work is obtained, where required, before working at heights
- P39 confirm that fall protection equipment is maintained and used properly
- P40 undertake all required pre-use checks, including ensuring that height access equipment is free from obvious defects, suitable and fit for purpose before use
- P41 confirm that height access equipment is deployed and secured before operations and used in accordance with operational procedures
- P42 maintain frequent communication with an identified colleague

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## Work safely and securely in ports

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- P43 ensure work areas are left clean, tidy and free of obstructions
- P44 use and store all height access and personal protective equipment

### Work safely in confined spaces

*You must be able to:*

- P45 consider the risks associated with working within the confined space before entering, taking note of all relevant hazard warnings and monitor equipment referring any concerns to the relevant person
- P46 address identified risks, implementing relevant precautionary actions before entering the confined space, including confirming that any appropriate ventilation equipment is operating properly
- P47 obtain the relevant permit to work from an authorised person before entering the confined space
- P48 confirm that any required gas detectors are operating properly and are suited to the atmosphere suspected to be present
- P49 undertake all appropriate checks, including checking the air quality and the availability of safe access
- P50 wear suitable personal protective equipment, including where appropriate, masks suited for the purpose and in date
- P51 inform a relevant colleague immediately before work is about to commence, informing them that the work in the confined space is to start
- P52 maintain frequent contact with relevant colleagues, including a colleague outside the confined space
- P53 inform the relevant people once the task has been completed
- P54 ensure work areas are left clean, tidy and free of obstructions

### Maintain security in ports

*You must be able to:*

- P55 follow regulations and organisational procedures for security at all times
- P56 display an ID badge prominently in all restricted areas
- P57 be vigilant and identify those who are not eligible to enter restricted areas
- P58 identify those individuals whose presence in the port area should be challenged
- P59 when considered necessary, challenge individuals within the port to justify their presence and to explain their activities
- P60 where necessary, refer unauthorised individuals or vehicles to the police or security personnel
- P61 address security **risks** and advise security personnel
- P62 notify security personnel regarding suspicious items, taking the necessary action to ensure the safety of people in the vicinity
- P63 maintain accurate records of incidents, where required to do so

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## Work safely and securely in ports

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### Knowledge and understanding

*You need to know and understand:*

- K1 the legal responsibilities for maintaining own and others' health and safety in the workplace
- K2 the requirements placed upon the individual and the organisation by current legislation and industry guidance, relevant to own area of operations
- K3 own organisation's policies and procedures and working practices relevant to own area of operations
- K4 specific role responsibilities of colleagues for health, safety and security
- K5 the principal types of hazard and risk likely to be found in own area of operations and the precautions appropriate for minimizing these risks
- K6 how to wear, use and maintain **personal protective equipment**, relevant to own area of operations
- K7 how to locate, use and maintain the principle types of safety and incident response equipment relevant to own area of operations
- K8 accident and emergency procedures of the organisation and individual roles and responsibilities, relevant to own area of operations
- K9 location of and how to operate alarm systems
- K10 procedures for contacting the emergency services
- K11 location of the approved escape routes and assembly points
- K12 own responsibilities for reporting accidents and emergencies
- K13 the limits of own responsibilities and of other when addressing health, safety and security in the port
- K14 the classes of dangerous cargo under current dangerous goods legislation, codes and procedures including the labels, placards, marks and signs relating to each class
- K15 the warning signs relating to fumigation
- K16 the symptoms of poisoning by the inhalation of fumigants, and what to do when these are observed
- K17 how to recognise fumigants
- K18 organisational procedures for testing for noxious gases
- K19 organisational procedures for handling, storing and segregating dangerous cargo
- K20 organisational procedures for reporting and dealing with spillages and hazards associated with dangerous cargo
- K21 who the responsible persons are to whom hazards must be reported to and how they can be contacted
- K22 own levels of responsibility for dealing with spillages and hazards associated with dangerous cargo
- K23 survival techniques appropriate to surviving in water
- K24 the local geography and water conditions and their impact upon rescuing individuals from the water
- K25 the location of all designated confined spaces in own area of operations
- K26 own organisation's 'Permit to Work' procedures
- K27 the reasons for maintaining confidentiality when dealing with specific types of risk to security
- K28 the circumstances when it is appropriate to challenge individuals to justify their presence within the port

# PSSPO109

## Work safely and securely in ports

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### Additional Information

#### Scope

1. **The principle types of hazard and risks should relate to:** normal operations, dangerous cargo, working near water, lone working, heights (including when carrying or handling objects), confined spaces (including those associated with oxygen deficiency, contaminants, noise, sources of energy, temperature, falls, trips and slips, engulfment, entrapment and static discharge) and security
2. **Personal Protective Equipment (PPE):** includes but is not limited to high visibility vests, hard hats, protective clothing, eye/hearing/respiratory protection, gloves
3. **Safety equipment:** includes but is not limited to: cages, chains, cut-off switches, isolators, signs, PPE, walkways
4. **Legal, safety and operating requirements** includes but is not limited to: safety regulations, operating procedures, codes of practice, guidance load restrictions, working time directive, port regulations

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## Work safely and securely in ports

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**Validity** Current

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**Relevant occupations** Port operations

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**Suite** Port Security Operations

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**Key words** Port security operations; port safety; ports; vessels

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### Overview

This standard covers the competence required to deal with emergency incidents in a port environment. Incidents can be responding to a pollution incident, responding to emergency situations aboard vessels and administering first aid. Where first aid is undertaken on board a vessel, it is important that this is only carried out by a qualified first aider. It is about making the correct initial response to an emergency situation, raising the alarm, contacting the emergency services and providing initial assistance.

### Target Group

This standard applies to port workers who are required to respond to incidents in ports.

There are 4 elements in this standard:

1. Respond to emergency situations
2. Respond to a pollution incident
3. Administer emergency first aid in ports
4. Respond to emergency situations aboard vessels

# PSSPO110

## Respond to incidents in ports

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### Performance criteria

#### Respond to emergency situations

*You must be able to:*

- P1 follow organisational procedures for responding to an emergency situation
- P2 report the emergency immediately to the relevant persons, including where necessary, to the relevant emergency services identifying the nature and location of the emergency
- P3 apply all necessary emergency shut down or isolation procedures as soon as practicable
- P4 alert all people in the vicinity of the incident, clearing them from the area, and bar access to the area to non-essential personnel
- P5 determine the full nature and extent of the incident where it is practicable and safe to do so
- P6 take appropriate measures to bring the situation under control and to assist any person in distress, where practicable and safe to do so
- P7 respond to instructions from the relevant authority, including emergency services personnel and the organisation's managers
- P8 where an emergency concerns a vessel or persons on the vessel, ensure that the relevant procedures for that vessel are followed
- P9 assist the organisation with post incident investigation as required
- P10 following an emergency situation, record the nature of the incident and all actions taken

#### Respond to a pollution incident

*You must be able to:*

- P11 raise the alarm and notify the relevant person as reasonably practicably, upon becoming aware of a pollution incident
- P12 establish the nature and the source of the pollution, and estimate the quantity of any spillage where it is practicable and safe to do so
- P13 make prompt contact with those at the source of the pollution to prevent its continuation, where it is practicable and safe to do so
- P14 track the pollution and assess its likely effect upon the environment where it is practicable and safe to do so
- P15 identify and obtain, the appropriate equipment and materials required for clearing the pollutant, and confirm that these are in good working order before commencing the work
- P16 report incidents to the relevant emergency services, identifying the nature and location of the incident
- P17 using the appropriate equipment and materials, contain the pollution, safely and as soon as practicable and safe to do so dispose of the pollutant in line with own level of authority and organisational procedures
- P18 ensure that the equipment used in a pollution incident is cleaned and stored securely upon completion, with equipment stocks checked and replenished

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## Respond to incidents in ports

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- P19 identify any faulty or damaged equipment, and refer this for repair
- P20 assist the organisation with post incident investigation as required

### **Administer emergency first aid in ports**

*You must be able to:*

- P21 respond to the needs of casualties with minor injuries and illnesses through:
  - P21.1 checking the area for danger and responding accordingly
  - P21.2 reassuring the casualty and obtaining, where possible, the history and symptoms of the injury/illness
  - P21.3 assessing the casualty and establishing the nature and extent of any injury
  - P21.4 applying first aid treatment appropriate to the type and severity of the condition
  - P21.5 calling for additional help, if necessary
  - P21.6 informing the casualty of the action taken and sources of further help and advice
- P22 respond to the needs of casualties with major injuries through:
  - P22.1 checking the area for danger and responding accordingly
  - P22.2 reassuring the casualty and obtaining, where possible, the history of the incident
  - P22.3 assessing the extent and severity of the casualty's condition
  - P22.4 placing the casualty in an appropriate position of rest
  - P22.5 protecting the casualty from heat or cold
  - P22.6 treating the casualty in accordance with current practice
  - P22.7 complying with hygiene procedures and avoiding infection as much as possible
  - P22.8 controlling any bleeding by applying direct or indirect pressure and appropriate dressings or bandages
  - P22.9 checking for and, where possible, maintaining circulation beyond bandaging
  - P22.10 immobilising and supporting injuries in line with current practice
  - P22.11 calling promptly for additional help
- P23 respond to the needs of casualties with medical conditions through:
  - P23.1 checking the area for danger and responding accordingly
  - P23.2 reassuring the casualty and obtaining, where possible, the history of the problem
  - P23.3 assessing the extent and the severity of the casualty's condition
  - P23.5 placing the casualty in an appropriate position of rest
  - P23.6 protecting the casualty from heat or cold
  - P23.7 complying with hygiene procedures as much as possible
  - P23.8 treating the casualty in accordance with current practice
  - P23.9 calling for additional help promptly
- P24 respond to the needs of unconscious casualties through:
  - P24.1 checking the area for danger and responding accordingly
  - P24.2 checking the casualty's level of consciousness and breathing

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## Respond to incidents in ports

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- P24.3 opening the casualty's airway by head tilt
- P24.4 looking for and removing obvious obstructions in the mouth
- P24.5 lifting the casualty's chin
- P24.6 checking the casualty for injuries, if appropriate
- P24.7 checking for the presence of any life-threatening conditions (severe bleeding)
- P24.8 moving the casualty to the recovery position in line with current practice
- P24.10 monitoring the casualty's condition and noting any change
- P24.11 reassuring the casualty throughout
- P25 perform cardio-pulmonary resuscitation (CPR) through:
  - P25.1 checking the area for danger and responding accordingly
  - P25.2 checking the casualty's level of consciousness
  - P25.3 opening the casualty's airway by tilting the head
  - P25.4 checking for breathing and removing any obstructions from their mouth
  - P25.5 lifting the casualty's chin
  - P25.6 applying rescue breaths at the correct rate and depth
  - P25.7 checking for signs of circulation
  - P25.8 applying chest compressions in the correct position and at the correct rate and depth
  - P25.9 continuing with affective rescue breaths and chest compressions in line with current practice
  - P25.10 monitoring for returning circulation in line with current practice
  - P25.11 calling promptly for additional help

*You must be able to:*

### **Respond to emergency situations aboard vessels**

- P26 follow correct procedures for responding to emergency situations aboard vessels
- P27 identify the type of emergency it is
- P28 report the emergency immediately to the relevant persons, including where necessary, the relevant emergency services, identifying the nature and location of any fire
- P29 follow the procedures and take the necessary precautions according to the types of emergency including, where relevant, the type of fire
- P30 comply with the vessel's muster procedures
- P31 where necessary, clear and bar all non-essential personnel from the area of the fire
- P32 respond to instructions from the master of the craft
- P33 record the nature of the incident and all actions taken following an emergency situation, as required

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## Respond to incidents in ports

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### 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, relevant to own area of operations
- K3 current industry guidance, relevant to own area of operations
- K4 own organisation's policies, procedures and working practices relevant to own area of operations
- K5 the principle types of hazard and risk likely to be found in own area of operations
- K6 the precautions appropriate for minimising the risks to self in own area of operations, when to emergency situation in the port
- K7 how to wear, use and maintain **personal protective equipment**, relevant to own area of operations
- K8 how to locate, use and maintain the principle types of safety and incident response equipment relevant to own area of operations
- K9 accident and emergency procedures of the organisation and individual roles and responsibilities, relevant to own area of operations
- K10 location of and how to operate alarm systems in port and aboard vessels, in own area of operations
- K11 location of the approved escape routes and assembly points in own area of operations
- K12 the layout of vessels, including access/escape routes, in own area of operations
- K13 how to evacuate a vessel, in own area of operations, safely
- K14 own responsibilities for reporting accidents and emergencies
- K15 the principal causes of fire at ports and aboard vessels
- K16 the principles underlying the spread of fire
- K17 fire fighting techniques to be used on different types of fire, and the purpose and limitations of different fire fighting equipment
- K18 the importance of constant vigilance in fire prevention and in minimising the risk of fire
- K19 the nature of incidents requiring contact with the emergency services and the procedures for doing this
- K20 the limits of own responsibility when dealing with incidents within the port
- K21 the roles and responsibilities of the relevant personnel to be contacted in emergencies, and the location at which they can be contacted
- K22 the layout of the port, including access roads to area of operations
- K23 organisational requirements relating to post-incident recording
- K24 local geography and water conditions, including navigable channels and tides, and their impact upon tracking pollutants and for the manoeuvring of craft within the port
- K25 the limitations and risks associated with applying first aid to others
- K26 how to check for signs of life and for life-threatening conditions
- K27 how to manage an unconscious casualty and the main causes of unconsciousness
- K28 how to detect an obstructed airway and understand the methods of clearing obstructions
- K29 methods of resuscitation and how to use these correctly

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## Respond to incidents in ports

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- K30 the precautions to be taken when performing resuscitation
- K31 how to recognise and assess the severity and extent of injuries
- K32 the methods for controlling bleeding
- K33 the signs and symptoms of shock
- K34 the different types of wounds and their treatment
- K35 the main safety considerations when dealing with burns and scalds
- K36 how to recognise and treat sprains, strains and fractures
- K37 the correct treatments for hypothermia, frostbite, heat-stroke and heat exhaustion

# PSSPO110

## Respond to incidents in ports

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### Additional Information

#### Scope

1. **Hazard:** something with potential to cause harm
2. **Risk:** a risk is the likelihood of the hazard's potential being realised
3. **The requirements placed upon the individual and the organisation by current legislation, should include:**
  - 3.1 responding to emergency situations in the port
  - 3.2 responding to a pollution incident
  - 3.3 administering emergency first aid in ports  
responding to emergency situations aboard vessels
4. **The principles underlying the spread of fire should include:**
  - 4.1 the elements of fire and explosion
  - 4.2 types and sources of ignition
  - 4.3 flammable materials and fire hazards
  - 4.4 factors that influence the spread of fire

# PSSPO110

## Respond to incidents in ports

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