

**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:

- Berth vessels (Performance Criteria 1-10)
- Position access equipment on vessels (Performance Criteria 11-22)
- Fuel vessels (Performance Criteria 23-36)

## Performance criteria

### *You must be able to:*

1. clear all moveable obstructions and potential hazards from the relevant area of the quay ahead of the vessel's arrival or departure
2. inform the relevant person of any obstructions or hazards that cannot be moved readily
3. identify and obtain the equipment required for berthing, including PPE, and confirm that it is in good working order before commencing operations
4. identify where ancillary lighting is required and obtain this when lighting levels are below minimum operational light levels
5. establish contact and agree berthing arrangements with all of those involved ahead of the operations
6. identify berthing procedures, materials and equipment and use them to berth vessels
7. take proper consideration of the prevailing weather and tidal conditions when berthing vessels
8. 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
9. address any difficulties or incidents, reporting these in line with organisation procedures
10. leave the quayside clean, tidy and free of obstructions upon completion of the berthing
11. prevent pedestrian or vehicular access until the vessel access equipment has been positioned
12. identify and obtain access equipment that is compatible with the vessel and associated surfaces used for walking/driving on to and off the vessel
13. conduct pre-use checks of equipment to be used, ensuring that it is safe and suitable for the task, and is clear of any hazards, ahead of the vessel's arrival or departure
14. agree the procedure for positioning equipment, and maintain clear communications, with relevant personnel during berthing operations
15. position access equipment only when the vessel has completed berthing and when authority from relevant personnel has been given
16. position access equipment ensuring that it is above the tidal range

- and that all safety devices are positioned according to manufacturer's specification and organisation procedure,
17. cordon off any gaps between the equipment and the vessel to prevent access
  18. reposition access equipment to account for operational factors including changes in tide
  19. liaise with the ship and other relevant personnel to agree the reposition arrangements
  20. prevent pedestrian or vehicle access during repositioning, lifting or lowering of access equipment
  21. obtain authority to remove access equipment from relevant personnel, and remove the equipment, ensuring that pedestrian or vehicle access is prevented during the operation
  22. take consideration of the prevailing weather and tidal conditions at all times
  23. prepare the quay area ensuring that all obstructions and hazards are removed, and that relevant safety systems are available and operating according to standard procedure
  24. cordon off the area and place warning signs, establishing and maintaining a safety boundary in line with best practice and regulatory requirements
  25. deploy spill prevention systems
  26. confirm that all equipment required for an emergency response is immediately available
  27. establish and maintain clear contact with all others involved in the operation, agreeing the protocol for fuelling the vessel prior to beginning operations
  28. calculate the amount and positioning of the fuel to be transferred to the vessel
  29. conduct a pre-use check to establish that all equipment functions are working within approved operating parameters before beginning operations, addressing any queries or faults according to organisation procedure
  30. connect pipelines in line with procedure, assembling flanges and gaskets, and lining up valves, positioning spill management equipment (which might include drip trays and bung scuppers) consistent with the type of operation
  31. confirm that all connections are leak free before fuelling commences, and monitor the pipelines for leaks at all times
  32. fuel vessels following organisation fuelling procedures

33. upon completion of fuelling, confirm that it is safe to disconnect pipelines
34. disconnect and clean pipelines only when it is safe to do so
35. deal with any residues and spillages maintain quay sides clean, tidy and free of obstructions
36. maintain accurate and up to date records of fuel transferred

## Knowledge and understanding

*You need to know and understand:*

1. the legal responsibilities for maintaining own and others' health and safety in the workplace
2. the requirements placed upon the individual and the organisation by current legislation relevant to supporting vessel operations
3. current industry guidance relevant to supporting vessel operations
4. own organisation's policies, procedures and working practices relevant to supporting vessel operations
5. how tides and different types of adverse weather conditions can impact upon vessel movements within a port area
6. the importance of applying speed limits relating to berthing operations of larger vessels
7. the words and phrases used in describing vessels and their movements within a port area according to organisation procedures
8. the use of hand signals for heave, slack, stop and secure
9. how to dip ropes
10. the impact of motion and tidal range upon berthing larger vessels, where these apply within the port environment
11. workplace procedures for dealing with incidents and emergency situations
12. the hazards associated with using access equipment on vessels and the importance of taking the necessary precautions to address these
13. the arrangements for safe access to and egress from the vessel, along with those for moving around the vessel itself
14. the purpose and limitations of personal protective equipment (PPE) and life-saving gear for use on or near the water
15. how to apply the principal methods of communicating with vessels
16. the uses and limitations of access equipment used by own organisation
17. the principal types of fuel handling equipment, including pipelines and valves, their operating capabilities and specific characteristics
18. the implications of back pressure and its significance in relation to pipeline systems
19. 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
20. the basic environmental protection measures to be applied during fuelling operations
  21. the location of, and how to use, emergency and safety equipment relevant to fuelling vessels, including procedures for addressing oil-based fires
  22. the physical layout of your port area, relevant to own area of operations

## Support vessel operations

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