Unit PSSPO106.3 Establish water depths(SQA Unit Code-H78C 04)

Performance Criteria

You must be able to

Establish water depths

- 1. obtain all of the equipment necessary for establishing the depth of water and confirm that it is fit for purpose before leaving the shore
- 2. identify the areas of water where depth measurements are required, before leaving the shore
- 3. monitor and record the vessel's position continuously, together with the height of the tide, throughout the survey operations
- 4. mark the depth-gauging equipment at regular intervals, and cross- reference it to known positions
- 5. 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
- 6. use all equipment in line with manufacturers' instructions, ensuring that it is calibrated, and carrying out all recommended error checks
- 7. refer any operational difficulties, and defects in equipment, to the relevant person
- 8. identify any variations from charted water depths and report to the relevant person

Knowledge and understanding

You need to know and understand

- 1. the legal responsibilities for maintaining own and others' health and safety in the workplace
- 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
- 3. current industry guidance relevant to supporting safe navigation within port areas
- 4. 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
- 5. the local geography, including advertised water depths, and water conditions, and their impact upon the movement of crafts, obstructions and **hazards** within the port
- 6. how to apply the theory of chart work and navigation techniques appropriate to locating areas within a port
- 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
- 8. buoyage systems and navigation lights
- 9. depth-gauging methods

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- 10. how to operate communications, depth measurement, position finding, and tidal measurement equipment used within your port
- 11. organisational procedures for reporting operational difficulties and defects in equipment occurring when establishing the depth of water
- 12. the local geography and water conditions, including navigable channels and tides, and their consequence for establishing water depths

Glossary

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