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### Overview

This unit is about your contribution to the inspection and verification of liquid devices.

This unit deals with the following:

- 1 Inspecting and verifying primary liquid devices
- 2 Inspecting and verifying secondary liquid devices
- 3 Inspecting and verifying liquid quality devices

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

#### **Previous Version:**

Unit 6 National Occupational Standards in Measurement Processes – May 2003

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## Inspect and verify liquid measurement systems

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### Performance criteria

- You must be able to:*
- P1 effectively notify all relevant personnel of your intention to carry out the inspection
  - P2 effectively inspect and verify the Primary Liquid Device against approved procedures and standards
  - P3 effectively re-instate the Primary Liquid Device
  - P4 follow the appropriate procedures should the Primary Liquid Device be unsuitable for re- instatement
  - P5 accurately complete all relevant documentation
  - P6 effectively safeguard the integrity of tools and equipment
  - P7 work safely and in accordance with operational requirements
  - P8 effectively isolate, remove, inspect and verify the Secondary Device against approved procedures and standards
  - P9 effectively re-instate the Secondary Device
  - P10 follow the appropriate procedures should the Secondary Device be unsuitable for re- instatement
  - P11 effectively isolate, remove, inspect and verify the Quality Device against approved procedures and standards
  - P12 effectively re-instate the Quality Device
  - P13 follow the appropriate procedures should the Quality Device be unsuitable for re- instatement
  - P14 effectively safeguard the integrity of high pressure standards gases and carrier gases

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### Knowledge and understanding

*You need to know and understand:*

- K1 how to safeguard the integrity of the Primary Device to be inspected and verified
- K2 how to carry out the inspection on the Primary Device
- K3 why and when to perform safe isolation and de-isolation
- K4 what to do if the Primary Device is unsuitable for re-instatement
- K5 the installation requirements and limitations and their effects upon performance of the Primary Device
- K6 the operating principles of the Primary Device
- K7 performance characteristics and calibration techniques for all of the relevant Primary devices
- K8 how to safeguard the integrity of the Secondary Device to be inspected and verified
- K9 how to carry out the inspection on the Secondary Device
- K10 what to do if the Secondary Device is unsuitable for re-instatement
- K11 the installation requirements and limitations and their effects upon performance of the Secondary Device
- K12 the operating principles of the Secondary Device
- K13 the function of loop components and the impact of their performance on the loop. To include barrier devices, power supplies and cabling and connectors
- K14 performance characteristics and calibration techniques for all of the relevant Secondary devices
- K15 how to safeguard the integrity of the Quality Device to be inspected and verified
- K16 how to carry out the inspection on the Quality Device
- K17 what to do if the Quality Device is unsuitable for re-instatement
- K18 the installation requirements and limitations and their effects upon performance of the Quality Device
- K19 the operating principles of the Quality Device

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### Additional Information

#### Scope/range related to knowledge and understanding

- 1 how to select, use and care for Personal Protective Equipment (PPE) including sight/hearing protection, gloves, footwear, hard hats, appropriate work wear
- 2 the implications of statutory and organisational requirements
- 3 how to interpret operational requirements e.g. policies, procedures, instructions, codes of practice, standards, schedules
- 4 who to inform that you are going to carry out the inspection e.g. plant management staff
- 5 the principles and practice of measurement. To include errors, accuracy and precision
- 6 isolation techniques
- 7 the differences between inspection and verification
- 8 the documentation relevant to inspection and verification and how to complete it effectively
- 9 how to access and interpret information from certificates of calibration and standards
- 10 device handling techniques
- 11 the traceability of test equipment
- 12 the meaning of the measurement terminology. To include errors, accuracy, precision and uncertainty)
- 13 the sources and treatment of errors and mis-measurement within metering system
- 14 how to access and interpret information on 'proving'

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## Inspect and verify liquid measurement systems

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