

Water Networks Technician

Unit WNTC05 Valve and Hydrant Operations

This training specification has been developed from the water process technician standard. The specification details the **minimum** training specification, as agreed by industry employers, to deliver the skills and knowledge required to carry out valve and hydrant operations in the water sector.

The specification details the critical requirement of the activity to carry out the work outlined and does not preclude employers from adding to the skills and knowledge detailed by the specification in their own training programmes.

All work must be carried out to approved procedures and practices and in accordance with statutory health, safety and environmental requirements.

What does this specification look like?

Water networks technicians need to be able to:

- VO1 Control valve and hydrant operations on distribution networks and understand the potential impact to the network
- VO2 Correct operation of valves and hydrants to minimise potential impact on the network and customers (calm network)
- VO3 Restore the network to its normal operating condition

What do I need to take this module?

Candidates to be **assessed** as competent in this area should have successfully completed the modules shown below or have evidence demonstrating an equivalent level of competence.

1. National Water Hygiene Scheme
2. Wayleaves – operations in private land

Performance Criteria

To achieve this unit, you will need to be able to:

General Requirements

- P1. Identify the work area to be accessed using company documentation, systems and work instructions
- P2. Select, inspect and wear required PPE in line with company procedures
- P3. Carry out a site specific risk assessment of the work area, identifying the hazards and implementing the control measures required
- P4. Maintain accurate and up to date records
- P5. Report information and data to the designated person

Task Specific - Valve and hydrant operations

- P6. Use location equipment to detect valves
- P7. Access valves / hydrant
- P8. Replace valve caps and spindles
- P9. Carry out valve and hydrant operations in line with company procedures, including sluice / gate valves, fire hydrant, wash out valves
- P10. Confirm valve size from the number of turns
- P11. Sounding of valves and hydrants to confirm isolation
- P12. Confirm network has been restored to expected operation

Knowledge and Understanding

To achieve this unit, you will need to know and understand:

General Requirements

- K1. The principles of Health, Safety and Environmental legislation in relation to working with water
- K2. The organisation's safety rules, policies and procedures relating to working with water
- K3. The hazards associated with working on the clean water network and the correct way to respond to them
- K4. How to select, inspect and use PPE when working with water
- K5. How to carry out a site specific risk assessment and identify workplace hazards
- K6. How to respond in the event of an emergency situation in the workplace environment
- K7. How to leave the work area in a safe and secure condition
- K8. The company recording and reporting process

Task Specific - Valve and hydrant operations

- K9. Specific health & safety requirements relating to valve and hydrant operations
- K10. Different types of valves and hydrants
- K11. The different types of tools required to access and clean the valve and hydrant chambers e.g. lifting key
- K12. The impact of valve and hydrant operations on the distribution network e.g. poor pressure, discolouration, bursts
- K13. Potential ingress and contamination issues and company control procedures
- K14. The notification processes to follow e.g. customer service, graphical information system
- K15. Valve size and correct identification e.g. number of turns
- K16. The principles that underpin pipe conditioning / mains flushing
- K17. The correct procedures for operating valves and hydrants and the consequences of incorrect operation
- K18. Different types of monitoring equipment fitted to valves and hydrants
- K19. Procedures to follow upon discovery of monitoring equipment
- K20. Recording current valve position and status on company systems
- K21. Air valve operations
- K22. Data collection, recording, reporting and maintenance requirements

How will it be assessed?

To achieve this unit, you will need to be able to provide evidence of the performance criteria and the knowledge and understanding requirements listed above.

Assessment types:

1. External assessment – an external accrediting body will assess against a national minimum standard
2. Internal assessment process – a company led on-going assessment against requirements
3. End-point assessment – see assessment plan for further details here (will be Energy & Utility Skills defined)

What type of evidence will be expected?

To achieve this unit, you will need to be able to provide evidence of the performance criteria and the knowledge and understanding requirements listed above.

Evidence types:

1. On-going local assessments
 - a) Assessment plan, review, feedback, standard assessment sheets
2. Knowledge based learning
 - a) Classroom, exams, assignments, Q&A sessions, e-learning modules
3. Evidence portfolios
 - a) Learning logs, photos, observation sheets

Assessment types and process

