

Water Networks Technician

Unit WNTC07 Network Performance Monitoring

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 network performance monitoring 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:

NPM1 Sample and interpret water quality results relating to the clean water network in accordance with company procedures

NPM2 Carry out network performance monitoring activities safely and ensure that company procedures are carried out to 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. Carry out Network operations
3. Wayleaves – operations in private land
4. Valve and hydrant operations

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 - Network performance monitoring

- P6. Interpret results in association with compliance failures in clean water networks
- P7. Take a sample and test for chlorine and turbidity using on site testing equipment
- P8. Plan for sampling using company information systems for both reactive and planned activities
- P9. Take a water sample for general analysis following a burst, from both the network and a customer's property, (not microbiological)
- P10. Carry out mains flushing and turbidity / discolouration monitoring
- P11. Sample and test the leak to determine its source e.g. groundwater
- P12. Maintain and store test equipment in line with manufacturers' recommendations e.g. annual calibration

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 - Network performance monitoring

- K9. Specific health & safety requirements relating to network performance monitoring operations
- K10. Current legislation relating to water supply and distribution
- K11. The regulatory sampling requirements
- K12. Water quality sampling carried out due to reactive and planned events
- K13. The correct sampling points and methods
- K14. How to test for chlorine and turbidity using on site test equipment
- K15. Material types and various types of degradation associated with them and the impact on water quality and burst frequencies
- K16. How to identify the ground conditions that can cause various types of corrosion and degradation e.g.:
- a) Heavy clay
 - b) Marine deposits
 - c) High salinity
 - d) Contaminated ground
- K17. How network performance parameters are monitored and how they are used in the company's investment strategy
- K18. Company requirements and standards relating to the companies water quality targets
- K19. How to interpret the results of water quality tests and compare against industry standards
- K20. The notification and reporting processes following deviation from normal parameters
- K21. Proactive mains cleansing and pipe conditioning activities including mains flushing and turnover issues
- K22. The principles of network modelling
- K23. 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

