

Water Network Technician

Unit WNT003 Water Network Design

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 understand water network design in the water sector.

The specification details the critical requirements of the activity to establish competence 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 network technicians need to be able to:

WND1 Understand water network maps and plans and use them to identify a range of network assets

WND2 Demonstrate an understanding of the design, operation and maintenance of assets on the water network

What do I need to take this module?

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

1. SHEA water or equivalent
2. All water networks technician specific units

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 the control measures required
- P4. Maintain accurate and up to date records
- P5. Report information and data to the designated person

Task Specific – Water Network Design

- P6. Identify features of plans, drawings and symbols, including:
 - a) Asset numbering systems
 - b) Company records
 - c) Identification of other utilities and services

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 – Water Network Design

- K9. Hydraulic theories, modelling and how to carry out a capacity check

- K10. The key elements of different types of water network and systems, why they are installed and how they operate including:
- a) Service reservoirs
 - b) Trunk mains
 - c) Distribution mains
 - d) Pumping stations / boosters
 - e) District metered areas (DMA) and pressure managed areas
 - f) Compliance monitoring points (CMP)
 - g) Valves, air valves, hydrants and washouts
 - h) Geology and topography
 - i) Proximity of other services e.g. gas and electric
- K11. The factors which contribute to the selection and installation of different water network systems and assets, including pressure, flow, population and environment
- K12. 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

