

# Wastewater Network Technician

## Unit WWNC06 Wastewater Network Pumping Station 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 understand wastewater network pumping station operations 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?

Wastewater network technicians need to be able to:

- WWPS1 Identify the component parts of a wastewater network pumping stations (also known as sewer pumping station (SPS)) installation and explain how each interacts and operates
- WWPS2 Understand and comply with health and safety, maintenance and operating procedures associated with wastewater network pumping stations

### 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

## 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 where appropriate
- P2. Select, inspect and wear required PPE in line with company procedures where appropriate
- 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 – Wastewater Network Pumping Station Operations

- P6. Identify key components and associated ancillaries of a wastewater network pumping stations installation
- P7. Identify examples of negative suction and positive suction
- P8. Identify examples of static discharge, static suction and total static variations of head / lift

## 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 wastewater
- K2. The organisation's safety rules, policies and procedures relating to working with wastewater
- K3. The hazards associated with working with wastewater and the correct way to respond to them
- K4. How to select, inspect and use PPE when working with wastewater
- 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 – Wastewater Network Pumping Station Operations

- K9. The principals of and reasons for wastewater network pumping station operations
- K10. The key factors in wastewater network pumping station design in relation to permit parameters
- K11. The key components and associated advantages and disadvantages of wet well and dry well pumping station installations
- K12. The operating philosophy of wastewater network pumping stations
- K13. The interaction between wastewater pumping stations and the wastewater network infrastructure
- K14. Basic design considerations for pumps, including:
  - a) Pump delivery head and suction
  - b) Impact of pipework - friction losses, self-cleansing, pipe size and material
  - c) Material to be pumped - thickness, volume and abrasiveness
- K15. Basic reactive and planned maintenance activities in relation to wastewater network pumping stations, including:
  - a) First line maintenance activities
  - b) Cleaning regimes
  - c) Safe isolation of pumps
  - d) Safe procedures to access wet wells
  - e) Lifting chain safety inspections
  - f) Prevention of needle stick injuries
  - g) Spill data monitoring
- K16. 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

