

# Water Networks Technician

## Unit WNTC11 Treated Water Storage

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 understand treated water storage in the clean water network.

The specification details the critical requirement of the activity to carry out the work outlined and does not preclude employers from adding to the 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:

- TWS01 Understand the legislation, policies and procedures associated with treated water storage
- TWS02 Understand the different risks associated with treated water storage
- TWS03 Inspect and maintain treated water storage assets to industry and company standards, whilst protecting public health

### What do I need to take this module?

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

1. National Water Hygiene Scheme
2. Valve and hydrant operations (Calm Network) training
3. 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
- 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 - Treated Water Storage

- P6. Follow the organisations policies and procedures in relation to inspection of a treated water storage facility
- P7. Carry out site inspections of statutory and non-statutory reservoirs to identify any non-compliance in relation to work instructions and or company procedures
- P8. Provide a written report of your findings from site inspections
- P9. Complete a risk assessment, method statement and contingency plan for works associated with service reservoirs
- P10. Plan and carry out operational activities on a service reservoir. This must include:
  - a) Telemetry Test
  - b) Drop Test
  - c) Dip Sample
  - d) Drain Down
  - e) Return to Service
- P11. Apply for any relevant consents to statutory and regulatory bodies for discharging water to land, watercourse or sewer
- P12. Take a water quality sample from a designated compliance sample tap by following company policies and procedures
- P13. Use and calibrate electronic equipment to measure chlorine and pH levels and record these on company forms
- P14. Store tools and equipment safely and securely and leave the work area work in a safe condition in accordance with company procedures

## 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 - Treated Water Storage

- K9. Specific health & safety requirements in relation to treated water storage
- K10. Specific legislation and water quality regulations in relation to treated water storage
- K11. The types of structures and assets associated with treated water storage:
  - a) Service Reservoirs
  - b) Water Towers
  - c) Valves and Hydrants
  - d) Pumps
  - e) Surge Vessels
  - f) Level Control Systems
  - g) Telemetry Systems
  - h) Security Systems
  - i) Compliance Sample Taps
  - j) Drainage
- K12. The policies and procedures associated with treated water storage
- K13. How to interrogate the information system e.g. SCADA / HMI to identify and control items of mechanical, electrical and instrumentation equipment
- K14. How to set up alarm set points in relation to telemetry
- K15. How to inspect treated water storage assets and record this information
- K16. The recording and reporting requirements for statutory and non-statutory service reservoirs
- K17. The regulatory requirements associated with water quality compliance sample taps
- K18. How to operate valves and pumps with the minimum amount of disruption to treated water storage

- K19. The difference between pressure, flow and velocity in distribution and treated water storage systems
- K20. The importance of chlorine and pH levels in relation to treated water storage
- K21. How to carry out a clean water risk assessment
- K22. The specific risks associated with public health and treated water storage
- K23. The maintenance tasks associated with treated water storage
- K24. The policies and procedures in relation to service reservoir cleaning
- K25. How to take water quality samples at compliance sample taps
- K26. The regulatory sampling process in relation to water quality
- K27. How to carry out a drop test on a service reservoir
- K28. How to drain down a service reservoir in a safe and controlled manner
- K29. How to dispose of treated water in a safe and controlled manner without causing harm to the environment
- K30. How to deal with an emergency situation in relation to treated water storage
- K31. 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

