

Wastewater Network Technician

Unit WWNC07 Combined Sewer Overflows

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 identify combined sewer overflows (CSO's) and understand their operation 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:

- WWCSO1 Identify and manage CSO operation and maintenance in accordance with company procedures and legislation
- WWCSO2 Safely control the hazards associated with the inspection, operation and maintenance of CSO's

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. Medium risk confined spaces
3. Manual handling

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 – Combined Sewer Overflows

- P6. Select and inspect appropriate tools and equipment for CSO inspection
- P7. Identify design features relating to the operation and maintenance of the CSO chamber installation and ancillaries
- P8. Identify design features relating to the operation and maintenance of CSO flow control devices
- P9. Demonstrate how to operate any appropriate bypass channels within the CSO chamber
- P10. Locate and interpret Environment Agency permit details for CSO's
- P11. Locate and interpret ancillary inspection schedules and reports and demonstrate when it may necessary to amend the frequency of planned maintenance

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 – Combined Sewer Overflows

- K9. The need for and benefits of CSO installation on the wastewater network
- K10. How to interpret wastewater network records to locate access points and overflow outfall location
- K11. How to locate and interpret CSO permit details and use them in conjunction with spill data
- K12. The design features relating to the operation and maintenance of CSO installations and ancillary features
- K13. The design features relating to the operation and maintenance of CSO flow control devices
- K14. How to identify various types of unscreened CSO, and explain the operation and maintenance issues thereof, including:
 - a) Surge relief
 - b) Low-sided weir & high-sided weir
 - c) Vortex
- K15. How to identify various types of screened CSO, and explain the operation and maintenance issues associated with them including:
 - a) Non-powered 'static' screen
 - b) Powered screen
 - c) 'Copasac', or similar
 - d) Other screening devices
- K16. How to identify various types of bypass and flow control associated with CSO operation, and explain the operation and maintenance issues associated with them including:
 - a) Penstocks
 - b) Throttle pipe
 - c) Hydrobrake & Hydroslide
- K17. How to identify the differences between various types of ancillary inspection
- K18. Where to locate and how to interpret ancillary inspection schedules and reports and understand when to amend the frequency of planned maintenance
- K19. 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

