

Wastewater Network Technician

Unit WWNO01 Sewer Pumping and Powered Asset Maintenance

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 maintenance operations on sewer pumping stations (SPS) and powered assets 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:

- WWSPM1 Safely carry out operational and maintenance activities on SPS and identify and comply with legal and company requirements
- WWSPM2 Maintain the operation of the SPS whilst working and communicating effectively with colleagues and third parties in order to minimise impacts on any receiving treatment works
- WWSPM3 Carry out maintenance of process equipment whilst complying with company and legal procedures in order to restore the SPS to normal operational status

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. Risk Assessment
3. Manual handling
4. Water jetting awareness
5. Medium risk enclosed areas

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 – Sewer Pumping and Powered Asset Maintenance

- P6. Identify asset for maintenance using company documentation, SCADA / HMI systems and work instructions
- P7. Identify if maintenance activities will adversely impact the process on site or downstream processes
- P8. Inform all necessary parties of the work and ensure they understand the implications and or restrictions of the work, including their own roles in the safe execution of the task
- P9. Select, inspect, prepare and use appropriate maintenance tools, lifting equipment and additional PPE requirements in line with company and legal requirements, and manufacturers' instructions. Tools and equipment may include:
 - a) Lifting equipment
 - b) Man-riding equipment
 - c) Davits
 - d) Harness
 - e) Escape B.A.
 - f) Equipment isolation / lock-off
 - g) Intrinsically safe equipment
 - h) Greasing equipment
 - i) Hand tools
- P10. Follow company isolation / reinstatement procedures
- P11. Safely operate the SPS, maintenance tools and equipment in line with company procedures and legal requirements and manufacturers' instructions to ensure operators, customers and assets are at no risk of injury or damage. Tools and equipment may include:
 - a) Lifting equipment

- b) Pumps
 - c) Macerators
 - d) Surge vessels
 - e) Screening equipment
 - f) SCADA / HMI
 - g) Maintaining Pass Forward Flow, duty / standby considerations.
 - h) Electrical or mechanical isolations
 - i) Greasing equipment
 - j) Chemicals
 - k) Hand tools
- P12. Restore the SPS to normal operating procedures.
- P13. Record and report activities / outcomes correctly, in line with company and legal requirements
- P14. Clean and Store tools and equipment safely and securely. 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 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 – Sewer Pumping and Powered Asset Maintenance

- K9. How to identify asset for maintenance using company documentation, SCADA / HMI systems and work instructions
- K10. How to ensure maintenance activities will not impact the process on site or downstream processes
- K11. How to ensure affected parties are informed of and understand:
 - a) The implications of the work

- b) The restrictions of the work
 - c) Their own roles
- K12. How to select, inspect, prepare and use appropriate maintenance tools, lifting equipment and additional PPE in line with company and legal requirements, and manufacturers' instructions. Tools and equipment may include:
- a) Lifting equipment
 - b) Man-riding equipment
 - c) Davits
 - d) Harness
 - e) Escape B.A.
 - f) Equipment isolation / lock-off
 - g) Intrinsically safe equipment
 - h) Greasing equipment
 - i) Hand tools
- K13. How to locate and follow company isolation / reinstatement procedures
- K14. How to safely operate the SPS, maintenance tools and equipment in line with company procedures and legal requirements to ensure operators, customers and assets are at no risk of injury or damage. Tools and equipment may include:
- a) Lifting equipment
 - b) Pumps
 - c) Macerators
 - d) Surge vessels
 - e) Screening equipment
 - f) SCADA / HMI
 - g) Operational equipment priorities
 - h) Electrical or mechanical isolations
 - i) Greasing equipment
 - j) Chemicals
 - k) Hand tools
- K15. How to restore the SPS to normal operating procedures
- K16. How to record and report activities / outcomes correctly, in line with company and legal requirements
- K17. How to store tools and equipment safely and securely and leave the work area work in a safe condition in accordance with company procedures

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

