

Common Core

Unit - WPTCC04 - Understand Water Quality Requirements

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 knowledge required to understand water quality requirements in the water industry.

The specification details the critical requirement of the activity to carry out the work outlined 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.

This specification is knowledge only.

What does this specification look like?

Learners need to be able to:

KWQR1 Understand water quality legislation and regulation as it applies to the water industry.

What do I need to take this module?

There are no specific module pre-requisites necessary for candidates before taking this module.

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 when working with water treatment processes
- K2. The organisation's safety rules, policies and procedures when working with water treatment processes
- K3. The hazards associated with working with water treatment processes and the correct way to respond to them
- K4. How to select, inspect and use PPE when working with water treatment processes
- 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 – Understand Water Quality Requirements

- K9. How legislation and regulation shapes operational practices
- K10. The titles and purpose of European Directives, Principal Water Industry Legislation and related regulations, applicable to the provision of water supply and water quality and how they are derived
- K11. The scope, purpose and significance of regulatory water quality sampling, including the locations it is undertaken and scheduling
- K12. The role and main powers of the industry regulators, including the Drinking Water Inspectorate and OFWAT (or their equivalents elsewhere in the UK)
- K13. The significance of key parameters and the reasons why they are included in the Water Quality Regulations
- K14. How these parameters are measured and how treatment processes and other factors may influence these concentrations and values
- K15. The short, medium and long-term variations, changes and trends in water quality and their impact on the treatment process and final water quality
- K16. Typical measured levels, trends and action levels for water quality parameters and the role of water quality alarms
- K17. The actions to be taken in event of an exceedance of an operational target value
- K18. The implications and consequences of regulatory water quality sample failures, and actions to be taken
- K19. The importance of investigation process in the event of water quality incidents, and the regulatory requirements regarding the reporting of these

- K20. The conditions and requirements associated with representative water sampling to include:
- a) Approved samplers
 - b) Types of sample bottles used
 - c) Importance of a representative sample point
 - d) Quality Assurance requirements for sampling and laboratories
 - e) Preservation of sample quality
- K21. The procedures and actions associated with breaches of treatment which may result in a risk to public health
- K22. The regulatory and operational requirements for keeping records of water quality, and the reasons and benefits for doing so
- K23. The principles of risk assessment and its role within the regulatory process and water operations

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 -

