

# Water Treatment Technician

## Unit WTTTC02 Plant Shutdown and Re-start

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 the plant shutdown and re-start in the water sector.

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.

### What does this specification look like?

Water treatment technicians need to be able to:

- PSR1 Identify the range of circumstances in which a treatment works will shut down automatically, including the range of failsafe criteria
- PSR2 Identify the range of circumstances treatment works may be shutdown manually
- PSR3 Apply the procedures, including required communications, to manage treatment works shutdowns and re-starts effectively, reducing the impacts as far as practicable

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

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

1. COSHH
2. National Water Hygiene Scheme

## 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 control measures required
- P4. Maintain accurate and up to date records
- P5. Report information and data to the designated person

### Task Specific – Water Treatment Processes - Plant Shutdown and Re-start

- P6. Shutdown the treatment works in line with standard operating procedures
- P7. Carry out the actions required in the event of the following:
  - a) A automatic plant shutdown
  - b) A manual plant shutdown
  - c) A controlled plant shutdown on discovery or emergence of process issues
- P8. Re-start the treatment works in line with standard operating procedures, including:
  - a) Reporting and recording
  - b) Observing, sampling and testing
  - c) Information systems and manual checks

## 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 – Water Treatment Process – Plant Shutdown and Re-start

- K9. The impact of plant shutdown on treatment processes and how to respond
- K10. How to identify the cause of plant shutdown
- K11. Start-up procedures to include standard operating procedures and local procedures
- K12. The range of water quality sampling and testing required in the event of a plant shutdown and re-start
- K13. Communications, reporting and record keeping associated with a plant shutdown
- K14. The risks associated with works shutdown and re-start and how to minimise the impacts associated with these
- K15. Contingency plans associated with the works when they need to be shutdown

### 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

