

Common Core

Unit – WPTCC09 - Isolation, Shutdown and Re-commissioning of Process Streams

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 isolation, shutdown and re-commissioning process streams 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.

What does this specification look like?

Learners need to be able to:

- ISR1 Identify the range of circumstances in which a treatment works will require process streams to be shutdown, isolated or re-commissioned
- ISR2 Identify the potential impact and the range of activities that are required for shutting down, isolating and re-commissioning process streams
- ISR3 Apply the procedures, including required communications, to shutdown, isolate and re-commission process streams, 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. Completion of all health and safety training requirements related to this module activity
2. Completion of the process specific modules and shutdown and restart module

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 - Isolation, Shutdown and Re-commissioning of Process Streams

- P6. Isolate specific process streams in line with standard operating procedures
- P7. Carry out the actions required in the event of the following:
 - a) A process stream shutdown / isolation due to:
 - i. An emergency
 - ii. Planned maintenance
 - iii. Refurbishment / long term shutdown
- P8. Carry out the procedures and activities required to monitor and maintain the process stream and equipment whilst out of service and/or isolated
- P9. Re-start the process stream in line with standard operating procedures, including:
 - a) Pre-start requirements and checks
 - b) Reporting and recording
 - c) Observing, sampling and testing
 - d) 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 or wastewater treatment processes
- K2. The organisation's safety rules, policies and procedures when working with water or wastewater treatment processes
- K3. The hazards associated with working with water or wastewater treatment processes and the correct way to respond to them

- K4. How to select, inspect and use PPE when working with water or wastewater 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 –Isolation, Shutdown and Re-commissioning of Process Streams

- K9. The impact of shutting down, isolating and re-commissioning process streams on treatment processes and how to resolve these
- K10. How to identify the root cause of the shutdown including automatic and manual instigation
- K11. Company procedures specific to the isolation, shutdown and re-commissioning of process streams including:
 - a) Standard operating procedures
 - b) Communications procedures
 - c) Reporting procedures
- K12. The range of quality sampling and testing required in the event of a re-commissioning of a process stream
- K13. Communications, reporting and record keeping associated with shutting down, isolating and re-commissioning process streams
- K14. The location and operation of valves, controls and instrumentation
- K15. The risks associated with shutting down, isolating and re-commissioning process streams and how to minimise the impacts associated with these
- K16. Company contingency plans associated with treatment works when shutting down, isolating and re-commissioning process streams

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

