

Common Core

Unit - WPTCC10 - Energy Performance Monitoring

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 energy performance monitoring on water and/or waste treatment processes.

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:

EPM1 Understand how to monitor energy performance and how and where energy savings can be made without compromising quality

EPM2 Analyse performance of the equipment used and make recommendations for reducing energy consumption, calculating savings and benefits

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. National Water Hygiene Scheme card mandatory for those working on clean water

Performance Criteria

To achieve this unit, you will need to be able to:

General Requirements

- P1. Identify the treatment process to be monitored by interpreting system plans and using available information
- P2. Select and wear the PPE required to carry out the activity
- P3. Carry out a site specific risk assessment of the work area, identifying the hazards and implementing the control measures required
- P4. Maintain accurate and up to date records
- P5. Report information and data to the designated person

Task Specific – Energy Performance Monitoring

- P6. Conduct an energy audit (walk around), identifying and prioritising issues
- P7. Analyse performance of the treatment process equipment and make recommendations for maintenance scheduling for energy and capital expenditure in order to optimise the process
- P8. Calculate savings and benefits from energy performance monitoring and optimisation and report findings

Knowledge and Understanding

You need to know and understand:

General Requirements

- K1. The principles of Health, Safety and Environmental legislation when working with treatment processes
- K2. The organisation's safety rules, policies and procedures when working with treatment processes
- K3. The hazards associated with working with treatment processes and the correct way to respond to them
- K4. How to select, inspect and use PPE when working with 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 – Energy Performance Monitoring

- K9. The importance of energy performance and monitoring in water and/or waste process treatments and the data which can be collected
- K10. How to reduce energy consumption in water and/or waste process treatments as:
- An individual
 - A team;
- And the tools available that can help make energy savings
- K11. How to monitor if the processes are running efficiently
- K12. The funding available to reduce energy and how to access it
- K13. The most intensive treatment processes and the energy they use
- K14. How to ensure compliance to standards using lean energy and chemical practices
- K15. How to:
- Develop a maintenance schedule for energy
 - Optimise for time of day, including tariff savings
- K16. Guidelines, best practice and support networks for reducing energy and how to access them

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

