



Background to MCERTS

The Environment Agency is the Government Body responsible for regulating the environment in England and Wales. MCERTS is the Environment Agency's monitoring certification scheme established to deliver quality environmental measurements. MCERTS is based on international standards and provides for the product certification of instruments, the competency certification of personnel and the accreditation of laboratories.

MCERTS is well established and covers a wide range of equipment and services:

- Continuous emissions monitoring systems
- Portable emissions monitoring systems
- Continuous ambient air quality monitors
- Manual stack emission monitoring
- Continuous water monitoring equipment:
 - Part 1: automatic samplers
 - Part 2: on line analysers
 - Part 3: water flow meters
- Portable water monitoring equipment
- Inspection of site flow monitoring arrangements
- Chemical testing of soils
- Direct toxicity assessment
- Water sampling and analysis
- Specific software applications

Since the MCERTS scheme was established, over 2500 inspection certificates, 140 product conformity certificates and 500 certificates of personnel competence have been awarded. Over seventy laboratories maintain MCERTS accreditation.

MCERTS details can be found at www.mcerts.net including a link to all MCERTS certified products and services.

MCERTS for Continuous water monitors: On line analysers

The MCERTS performance standard for continuous water monitors (CWM) is based on relevant sections of a number of international ISO and CEN standards, as well as taking into account other relevant national standards.

The determinands covered by MCERTS are ammonia, COD, conductivity, dissolved oxygen, free cyanide, nitrates, orthophosphate, pH, temperature, TOC, total arsenic, total cadmium, total chlorine, total copper, total lead, total mercury, total nickel, total oxidised nitrogen, total phosphorus, and turbidity. These are some of the most important parameters when monitoring discharges from wastewater treatment works, industrial processes and the aquatic environment.

MCERTS for CWM provides a formal scheme for the product certification of continuous monitoring systems. We have appointed Sira Certification Service (the Certification Body) to operate MCERTS on our behalf.

Product certification comprises three parts. These are:

- Laboratory testing – used to determine performance characteristics, where such testing requires a highly controlled environment.
- Field testing – carried out on processes representative of the intended industrial sectors and applications.
- Auditing - of the manufacturing process to confirm that the manufacturer can ensure manufacturing reproducibility and can control any design changes so they do not degrade performance below the MCERTS standard.

Test organisations have to demonstrate that they comply with the relevant requirements of ISO/IEC 17025.

MCERTS recognition

MCERTS applications for air monitoring equipment have been in existence for over ten years. In the European Union, MCERTS is applied implicitly through EN 15267 as an Anglo German scheme. Italy recognises MCERTS and other countries such as Poland and Portugal have specified MCERTS. Contract documents have included MCERTS requirements in countries such as China, Hong Kong, Australia, South Africa, Malaysia and Turkey.

The MCERTS water monitoring equipment standards are relatively new but manufacturers are informing us that it has been specified in Europe and beyond. The European Union environmental technology verification scheme (ETV) proposes to include MCERTS and water monitoring systems in the initial scope. In addition work is progressing with CEN/ISO committees to use MCERTS as the benchmark standard.

More information can be found at www.mcerts.net
or by contacting paul.wiggins@environment-agency.gov.uk