

MCerts Delivers Confidence in Multi-Parameter Monitors

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Simon Wills, Managing Director of OTT Hydrometry, the hydrometeorological and water quality instrumentation company, was presented with an MCERTS certificate for Hydrolab water quality monitors at WWEM 2010. Simon was accompanied by Lea Ann Zullig the Global Director of Sales and Marketing for Hydrolab products. In this article, Simon explains the reasoning behind this initiative and outlines the benefits for those companies with the MCERTS certificate.

MCERTS for water

In order to improve the quality and reliability of environmental emissions monitoring delivered by operators of regulated processes, the Environment Agency of England and Wales (EA) has developed a monitoring certification scheme known as MCERTS.

The scheme is based upon the premise that quality data is dependent upon the proper use of methods, standards, services and equipment, trained and qualified personnel, effective planning, quality assurance and quality control.

MCERTS underpins the EA's move to Operator Self-Monitoring (OSM) and provides operators with an opportunity to deliver higher levels of confidence in monitoring data.

There are currently four MCERTS schemes that relate to water monitoring instruments. These are:

1. Continuous water monitoring equipment (CWMS)
Part 1 - Automatic Waste Water sampling equipment
2. Continuous water monitoring equipment (CWMS)
Part 2 - On-line analysers
3. Continuous water monitoring equipment (CWMS)
Part 3 - Water flowmeters
4. Portable water monitoring equipment (PWMS)

The EA has recently outlined a hardening policy on the use of MCERTS certified products. The Agency's Paul Wiggins says, "A wide variety of flow meters have now achieved MCERTS, so all new and replacement meters must now be certified. In addition, several analytical products already have MCERTS and a large number of companies are now taking their products through the MCERTS application and evaluation process. "This level of activity is very encouraging and I believe that we can now look forward to a time when the number of certified analytical instruments will enable us to enforce the MCERTS policy for all new and replacement water quality monitoring instruments."

Speaking at the recent WWEM 2010 Conference, Paul Wiggins congratulated the instrument manufacturers that have achieved MCERTS and urged process operators "to ask their suppliers if they have MCERTS – and if not, why not."

Multiparameter water quality monitors

A small number of manufacturers have developed monitoring 'sondes' that are comprised of multiple water quality sensors and associated electronics, often in conjunction with an internal datalogger. These instruments have been available since the early 1970's and are deployed all over the world to monitor water



quality in a wide variety of applications including groundwater, rivers, lakes, streams, reservoirs, marine water, effluent and process water.

OTT Hydrometry has received an MCERTS certificate (Sira MC100180/00) for the Hydrolab DataSonde 5 and MiniSonde 5 covering both the Continuous Water Monitoring Systems scheme and the Portable Water Monitoring Systems scheme. The certificate also covered the use of these sondes with a Field Rugged PDA unit.

The MCERTS certificate provides third party confirmation that the products conform to the rigorous specification and performance requirements of the MCERTS scheme.

There are two sizes of Hydrolab sonde; with an 8.9cm diameter, the DataSonde Series 5 (DS5) is larger and therefore capable of measuring up to 15 parameters simultaneously, whereas the MiniSonde is just 4.4cm in diameter and thereby suitable for many applications including insertion into groundwater wells.

The MiniSonde Series 5 (MS5) is able to measure up to ten parameters simultaneously and whilst it is ideal for groundwater

monitoring, it is also utilised for surface water monitoring both as a portable monitor and for unattended monitoring.

In addition to the MS5 and DS5, the MCERTS certificate also covers the DS5X, which is designed for 'X-tended' deployments in applications for which fouling and sedimentation are a potential challenge. The DS5X resolves these issues with a built-in wiper that removes the accumulation of anything that might affect the accuracy of the data.

The Hydrolab sondes and the onboard sensors are all designed to minimise the requirement for maintenance and calibration. For example, they are now supplied with the new LDO™ dissolved oxygen sensor, which is an optical sensor offering dramatically lower levels of maintenance with almost no requirement for calibration.

Why MCERTS?

The MCERTS scheme is already well established for air emissions monitoring equipment, wastewater sampling equipment and in

liquid effluent flow monitoring equipment. It is logical to assume therefore, that water quality monitoring equipment will follow the same path. So, from a manufacturer's perspective it makes sense to have your products assessed under the MCERTS scheme sooner rather than later because you are then able to derive the benefits of certification for a longer period and in most cases this will deliver competitive advantage.

The EA conducts the Operator Monitoring Assessment (OMA) scheme; a risk-based approach to ensure the protection of the environment through the implementation of a programme to check and continuously improve the quality of OSM. Under OMA operators are audited and scored by the EA on a scale of 1 to 5. A score of 1 is unacceptable; a score of 3 is acceptable and a score of 5 is excellent. However, it is only possible to achieve a score of 5 if the monitoring equipment has MCERTS.

The users of water monitoring equipment are increasingly specifying the MCERTS standard in tenders, even when it is not yet mandatory. This is also happening overseas; MCERTS is becoming recognised as a stamp of reliability and has been seen in tender

documents all over the world and is currently being considered for adoption as a European standard.

Summary

The achievement of MCERTS for the Hydrolab water quality monitors is good news for anyone with a need to monitor water quality. Firstly, it provides independent third-party proof that the instruments comply with stringent specifications and secondly it takes the market closer to a position in which the EA can stipulate that all new and replacement water quality monitors *MUST* have MCERTS approval because there are a sufficient number of MCERTified instruments available to ensure that end users have sufficient choice.

