



## MCM Newsletter – Issue 2, June 2007

### News Roundup

The first half of 2007 has proven to be exceptionally busy for the MCM team, with new orders and fresh application areas keeping everybody active.

April and May were especially hectic months, with clients from **Russia, Israel** and **Norway** visiting for Factory Acceptance Tests, whilst a delegation from **China** undertook a week-long training course.

*Do you have an interest in moisture analysis?  
Would you like to join our growing list of clients?  
Are you linked to any of the following companies?*



If the answer is 'Yes', you are eligible for a **discount** on new products – send us an [email](#) to find out more.

### MCM Training Courses



If you want to learn how to get the most out of any hygrometer, or learn some of the 'science' of moisture measurement, we can provide a training course to meet your exact needs. Either in-house at MCM, or at your chosen location, we can tailor our training schedule to address your particular application and the most important issues that you face.

Enquire about our new course, the **Introductory Guide to Moisture Measurement**, which is popular with both UK and international clients who recognise that training their operators generates improved quality of data capture and increased productivity.

Each session is conducted on a personal basis, usually in groups of 4-6, and involves direct practical testing with the analysers as well as methodology of best use. Every delegate participates in the practical training and a certificate is awarded at the end of the course, following a short theoretical examination.

For more information about our range of training courses, send us an email [here](#).

### Standards & Traceability

Standards affect all aspects of our lives, from the correct volume of fuel at the filling station to the correct weight and quality of gold bought in a bazaar.

Occasionally, specifications call up 'measurements' beyond the provenance of Standards. Unscrupulous suppliers often claim to meet unachievable specifications. Invariably, the result is disappointment, damage, injury and even death, as poorly specified instrumentation fails to meet unrealistic expectations.

Performance claims made by suppliers are governed by the limitations of the standard those claims are measured against as, by definition, a standard cannot be bettered. Buyers and contractors should remember this basic concept – without comparison against appropriate standards it is very difficult for the buyer to evaluate claims made by suppliers.

Take moisture analysis, 'measuring' moisture at ppm[V] and ppb[V] concentrations. A supplier must demonstrate traceability to a standard that is relevant to concentration (namely to Mass), not temperature, which is the traceable route for Dewpoint.

*Most standards laboratories only offer temperature traceable humidity standards and are unable to offer Mass traceability below approximately 6ppm[V].*

Given the shortage of relevant standards at these low levels, follow the old mantra – buyer beware!

Clients who request traceability to **NIST** standards should be aware that NIST are **not Mass traceable** and have a lower calibration limit of -70°C Dewpoint – click [here](#) for more.

In comparison, **Stephens Analytical, Inc** (holder of the Canadian National Standard for Moisture Calibration) are **Mass traceable to 20 ppb[V]** and certified ISO/IEC 17025 – click [here](#) to learn more.

### Nuclear Reactor Systems

MCM's strong relationship with the British Nuclear Industry has been reinforced with the supply of four systems to aid the decommissioning process at Sizewell 'A' Power Station in Suffolk. MCM's **High Integrity Auto-Zero Systems** (an upgraded version of our standard Auto-Zero System) were specified to monitor critical reactor moisture levels in the post-operation period, with a 10<sup>-2</sup> reliability factor and a SIL1 level of compliance.



### Product Focus

#### MCM's Auto-Zero System



The MCM Auto-Zero System provides **high precision on-line analysis in applications where levels of contamination are greater than normal and routine servicing is impractical.**

The Auto-Zero System is built around MCM's **MicroView Compact ATEX Hygrometer**, which contains our standard Temperature Controlled Silicon Sensor and the electronics required to operate the analyser sample system. Incorporated in the design are two high-capacity desiccant dryer columns, which provide the 'dry' reference gas required to check the 'zero' of the analyser's Sensor. Hazardous area operation is made possible by the unsurpassed **ATEX rating (II 1G EEx ia IIC T4 Ta = -20°C to +60°C).**

The robust nature of MCM's Sensor, coupled with its unique Push Purge<sup>®</sup> heating feature, means that MCM's hygrometers are already more resilient to the effects of contaminating gas streams than competitive instruments. When incorporated within the Auto-Zero solution, we provide users with the highest quality of data and unparalleled operational confidence – and all with Mass traceable calibrations (see left).

Many years of successful operation have proven the Auto-Zero System to be the ideal analyser for **Natural Gas** and **Petrochemical** applications, including:

**Offshore Platforms, Post-Glycol 'Contactor' Monitoring, Pipeline Drying, Natural Gas Storage and Distribution, Receiving Terminals (Custody Transfer) and LPG Container Transfer.**

If you have an interest in any of these applications, or any other contaminating gas process, send us an email [here](#).

### Forthcoming Events



**Miconex 2007**  
International Fair for Measurement,  
Instrumentation and Automation  
Sep 18-21, Shanghai, China  
[www.miconex.com.cn](http://www.miconex.com.cn)

In addition to our first time at Miconex, MCM will be visiting Singapore and Australia in June, July and August. If you'd like us to visit you, send an email [here](#).