

Measurement Traceability for Water Sensors: Confidence in Measurement

16th May 2012

National Physical Laboratory, Bushy House (Globe Room), Teddington TW11 0LW (see [here](#)).

Please use Queen's Gate entrance (contact linda.smith@swig.org.uk for car park pass).

Measurement is vital to control and maintain an efficient process. Accurate measurement relies on calibration, which can be linked through a chain of steps to fundamental standards. Traceability of a measurement allows different results to be linked to a common reference and ensures that we get an accurate representation of the parameter, allowing us to convert and compare values from different instruments, different places and different times.

To get the information we need about water we use a variety of physical and chemical techniques, but with some measurements it is difficult to determine the 'true' value of a parameter as they are many steps away from the primary standards. However we still rely on a calibration chain to compare the values to each other.

This workshop will discuss a variety of measurements and include presentations on the best measurement techniques available to the water community and help us explore the links to primary standards.

Chairman: Andrew Chappell – Environment Agency

09.30 Coffee & registration

10.00 Introduction and overview

Chairman

10.10 Introduction to measurement uncertainty and traceability

Steve Ellison, Principal Scientist - Statistics and Reference Materials, LGC

10.35 Traceability in the Water Industry

Andy Godley, Senior Consultant, WRc plc

11.00 Tea / coffee

11.30 Flow Calibration and Measurement Traceability

Dr Bryan Franklin, Flow Products Manager, ABB Limited

11.55 Traceability and estimation of uncertainty for in-situ probes for continuous water quality monitoring: a case study

Nathalie Guigues, Water Quality Project Manager, LNE (National Laboratory of Metrology), France

12.20 Use of automated cleaning and calibration to improve long-term performance of pH electrodes – a case study from the pharmaceutical industry

John Comer, Chief Scientific Officer, Sirius Analytical

12.45 Discussion

13.00 Lunch and networking

14.00 ISO guide 34 standards: a manufacturer's perspective

Bernard Gleeson International Business Development Manager, Reagecon Ltd

14.25 Relating Verification to Calibration for Turbidity measurements

Peter Lindmüller, Product Manager Solids Measurement, Endress+Hauser Ltd

14.50 Discussion & close of seminar session

15.00 Laboratory Tour – a range of Laboratories at NPL

16.30 Close

REGISTRATION: The cost of attending the Workshop is £78.00 inc VAT for SWIG members. £140 inc VAT for non-members. Literature may be distributed for a fee of £60 and a limited number of table top displays are available at £110 each. Registrations can be made by Tel: 01925 855741, email: linda.smith@swig.org.uk, web: www.swig.org.uk using the on-line booking form. **Please advise if you have special dietary needs.**

Cancellation policy: Refunds can only be made if cancellations are notified at least 5 days in advance of the Workshop date.