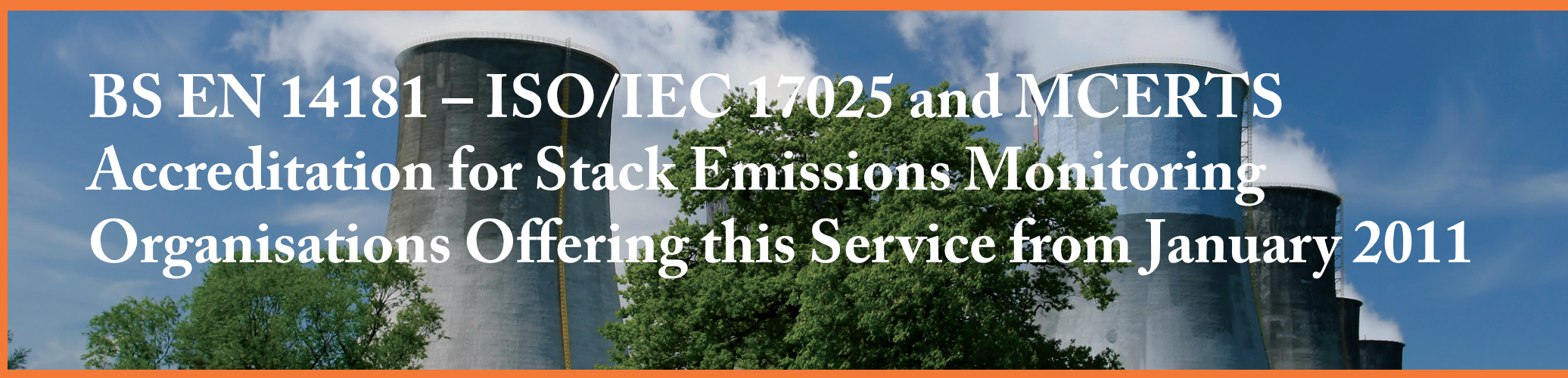

BS EN 14181 – ISO/IEC 17025 and MCERTS Accreditation for Stack Emissions Monitoring Organisations Offering this Service from January 2011

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Industrial process operator that have environmental permit, should be aware of the requirement to ensure that any continuous emissions monitoring systems (CEMs) that are installed at emission points to air are functioning correctly. In 2004 BS EN 14181 was introduced to provide formal quality assurance procedures to be applied to CEMs on all processes falling under the Waste Incineration (WID) and Large Combustion Plant (LCPD) Directives.

The principles of BS EN 14181 are relatively simple in that suitable monitoring equipment is installed; it is set up correctly, calibrated effectively and monitored over time to ensure the derived calibration function maintains its validity and suitable checks are made. The outcome of this is to increase both the accuracy and precision of the installed instrument, thus increasing the confidence in the results it reports and ultimately reducing the potential requirement for additional specialist monitoring to verify the performance of the process.

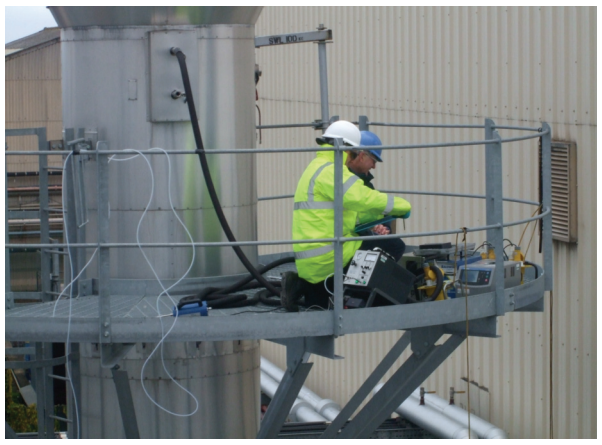
Despite this relatively simple overview the processes involved in the execution of BS EN 14181 are quite complex and vary depending on the installation, the instrumentation and the industrial process operator. Over the past few years, stack emissions monitoring organisations performing EN 14181 work have been doing so outside the scope of ISO/IEC 17025 accreditation, and both industry and the Environment Agency have seen very variable quality in the way this work has been implemented, resulting in some extreme cases whereby a perfectly functional CEM has been condemned as mal-functioning due to basic misunderstandings of both the EN 14181 processes and the installation that was being monitored.

The United Kingdom Accreditation Service (UKAS) is the sole accreditation body recognised by the UK Government to assess, against internationally recognised standards, organisations that provide certification, testing, inspection and calibration services. Accreditation by UKAS demonstrates the competence, impartiality and performance capability of organisations or individuals that provide these evaluations. UKAS has been working in partnership with the Environment Agency under the MCERTS scheme to define accreditation criteria to ISO/IEC 17025 for stack emissions monitoring organisations that perform and offer a service to verify and calibrate CEMS in accordance with BS EN 14181. Since was a new area the accreditation scheme was run as a pilot project, focusing on the key requirements to ensure that consistency in the application of the assessment criteria.

The accreditation process is an impartial, rigorous and on-going assessment and focuses on all aspects of the service that the stack emissions monitoring organisation should be performing, to meet the requirements of BS EN 14181.
The assessment ensured that they make all parties are aware of the requirements of the standard, focusing on the equipment, performance checks, specific monitoring requirements, process characteristics and ultimately deriving a suitable calibration function and on-going verification as appropriate. The actual performance of the functional test of the CEM have not been assessed as it has been agreed that this falls outside of the scope of the accreditation offered at this time, and is covered separately by the performance requirements of MCERTS for CEMs.

The stack emission monitoring organisations are expected to verify that the continuous emission monitoring equipment installed at the release point meets the performance requirements for the process, both operational and legislative (Quality Assurance Level (QAL) 1). Additionally as part of the pre-visit assessment (contract review) any adjustments required to the plant/process will need to be agreed in advance, such that these can be performed within operational parameters as part of the paired measurement exercise, in accordance to both QAL 2 and the Annual Surveillance Test (AST). The contract review process will also include an assessment of the on-going performance checks of current installed equipment, where applicable verifying that any zero and span drifts including maintenance outages are suitably controlled (in accordance to QAL3).

The actual paired measurements performed on site by all stack emissions monitoring organisations in the UK are performed in accordance to ISO/IEC 17025 and MCERTS accredited standard reference methods.



The assessment also examined all the records from the monitoring exercises, the final report including the derivation and/or verification of the calibration function and additional information that is required in accordance to QAL2 and/or the AST.

Accreditation demonstrates confidence that the organisation has the resources and technical competence to undertake the work, that correct and valid test methods are used, that the work is carried out impartially and with integrity and that suitable and appropriate sampling and analysis equipment has been used. It is also a requirement that all accredited organisations participate in relevant suitably recognised proficiency testing schemes.

Key documentation used in this process includes BS EN 14181, the Environment Agency Method Implementation Document (MID) 14181 and Technical Guidance Note TGN M20, these are available from www.mcerts.net

This pilot programme has now been completed and all the participant organisations were granted accreditation on 10 January 2011. The organisations in the UK that have been granted accreditation are:

From 10 January 2011 it will be mandatory for all newly commissioned BS EN 14181 work (QAL2 and the AST – excluding the functional test) for processes operating with a permit from the Environment Agency under the Environmental Permitting Regulations to be performed by an organisation that holds the correct accreditation.

The organisations' individual schedules can be located on the UKAS.com general website http://www.ukas.com/default.asp by typing 14181 as the keyword search string and clicking on "testing labs" button below.

Any organisation that wishes to apply for UKAS accreditation in this area as an extension to their existing scope or as a new

Company	Accreditation No
ALcontrol UK Limited Trading as ALcontrol on Site Services - Air	1783N
Catalyst Environmental Limited	4279
CES Environmental Instruments Ltd	2338N
E ON New Build and Technology Limited	2200N
Envirocare Technical Consultancy Ltd	2522N
Environmental Compliance Ltd	2499N
Environmental Scientifics Group Limited	1015N
Littlebrook Power Services	2642N
National Physical Laboratory	0002N
Northumbrian Water Ltd (trading as Northumbrian Water Scientific Services)	1181N
Parsons Brinckerhoff Ltd	2065N
Protea Ltd	2515N
RPS Consultants Ltd	1709N
RWE Npower	1567N
TUV NEL Ltd	0230N

applicant should contact their appointed UKAS assessment manager or UKAS directly at info@ukas.com or by asking for the corporate communications department on +44 (0)20 8917 8400

The above companies are all members of the Source Testing Association.

The STA was established in 1995 and has a corporate membership of over 200 companies from process operators, regulators, equipment suppliers and test laboratories. The STA is a non-profit making organisation.

The STA is committed to the advancement of the science and practice of emission monitoring and to develop and maintain a high quality of service to customers.

Its aims and objectives are to:

(i) contribute to the development of industry standards, codes, safety procedures and operating principles;

(ii) encourage the personal and professional development of practicing source testers and students;

(iii) maintain a body of current sampling knowledge;

(iv) assist in maintenance of a high level of ethical conduct;

(v) seek co-operative endeavours with other professional organisations, institutions and regulatory bodies, nationally and internationally, that are engaged in source emissions testing.

The Associations headquarters are based in Hitchin, Hertfordshire with meeting rooms, library and administration offices.

The Association offers a package of benefits to its members which include:

- Technical advice relating to emission monitoring
- Conference and exhibition opportunities
- Seminars and training on a variety of related activities
- Representation on National, European and International standards organisations
- Training in relation to many aspects of emission monitoring
- Liaison with regulators, UK and International, many of whom are members.

For details and advise on BS EN14181 or to see details of training courses telephone 01462 457535 or visit www.s-.t-a.org .