

NEWS RELEASE

For immediate use

Do You Comply with Refined Standards?

The Environment Agency's certification scheme is clarified to ensure equipment is application appropriate.

Analyser accreditation is a subject much in the news of late, as users and manufacturers alike try to keep up with the changing requirements of European directives. The MCERTS scheme, initiated by the Environment Agency and run on their behalf by SIRA and the Source Testing Association, is the UK's answer to these requirements, but has itself gone through a number of significant changes during its 15 year history.

In particular, the requirements for Continuous Emission Monitoring, or CEMs, have only recently been clarified with the introduction of a series of Method Implementation Documents, or MIDs, aimed at easing the complex process of choosing and using a CEM system. One such document, MID14181, deals in some detail with the selection of CEMs for specific ranges, and hence specific applications – an area that earlier implementations of MCERTs were a little vague on. Clearly, the scheme needs to allow for the fact that an analyser that works satisfactorily at a high range may be a less appropriate choice as the measurement range gets lower and lower.

MID14181 states that the maximum operating range should be no more than 2.5 times the ELV, or Emission Limit Value, for the site. The ELV is a site parameter normally set by the EA in the 'permit to operate' issued to the site, and will vary from application to application. Gas firing for power generation is often favoured these days for its low emissions and quick startup capacity and a typical value for the ELV in these stations is 60mg/m³ (expressed as NO₂ equivalent), which equates to just 30ppm of NO₂. Such an ELV would allow a maximum range of 75ppm NO_x, considerably below that available on many gas analysers. In fact, several of the analysers which gained MCERTS accreditation in the early days of the scheme through conversion of approvals obtained from the German TÜV scheme, would not meet this specification.

Among the various measurement techniques for measuring NO_x, chemiluminescence is the preferred method for low levels and it is also the standard reference method (SRM). The Signal Ambitech "Emirak" CEM has been successfully employed in gas turbine power generator applications throughout the world for the past 20 years, with over 3000MW of electricity currently being generated in the UK by plant using this equipment. A recent installation in Baglan Bay, South Wales, provided emissions monitoring for the advanced 9H gas turbine manufactured by General Electric. This heated, extractive system utilises a chemiluminescent NO_x analyser with sensitivity to NO_x well within the 75ppm range noted above and it is now being tested for MCERTS approval in the UK. This approval is expected to be achieved through UK testing such that the system fully complies with EN14181 within the implementation timescale set out by the Environment Agency.

The Emirak system also offers CO analysis utilising another SRM, gas filter correlation NDIR, and can optionally measure SO₂, H₂O and O₂. An on-board PC provides data logging and reporting to meet EA requirements.

The full Method Implementation Document for EN14181 can be found on the website of the Source Testing Association at www.s-t-a.org

ENDS

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