

## Measurement products BS EN14181-based solutions

ABB's BS EN14181-based emissions monitoring services provide comprehensive, packaged solutions designed specifically to deliver compliance with the Waste Incineration Directive (WID) and Large Combustion Plant Directive (LCPD).

### The implications of BS EN14181

Stringent European and UK legislation imposes statutory limits on gaseous and dust emissions to the atmosphere from industrial plant. Power generators must comply with the Large Combustion Plant Directive – LCPD (Directive 2001/80/EC), and incinerators of waste materials must comply with the Waste Incineration Directive – WID (Directive 2000/76/EC).

Operators of power plants greater than 50 MW capacity are required to measure SO<sub>x</sub> and NO<sub>x</sub> emissions continuously. Operators of waste incinerators – which can range from small scale biomass plants of greater than 5 MW to large-scale municipal waste incinerators greater than 200 MW – are required to measure the same gases and also typically CO, HCl, NH<sub>3</sub>, TOC and HF.

### Maintaining analyser availability is key

The LCPD and WID directives place obligations on plant owners to ensure that CEMS are available for not less than 97%. Furthermore, owners of plant operating under WID are obliged to stop their processes – and therefore suffer a loss of revenue – if their CEMS fail for more than 4 hours.



### Continuous emissions monitoring requirements

To comply with BS EN14181 legislation, the following steps must be undertaken to ensure CEMS are working properly and within the permitted uncertainty levels:

**QAL1** - requires that instruments are shown to be suitable for purpose based upon a set of laboratory and field procedures. Testing must be carried out by an approved laboratory with certification by MCERTs.

**QAL2** - Calibration of the CEM against analytical methods applied by a test organisation accredited to ISO 17025, and recognised under MCERTs.

**QAL3** - Ongoing quality is maintained by detecting and recording drift or changes in precision in the CEM through regular checks of the zero and span readings against reference materials and presented on control charts. ABB provides software and service solutions for completion of QAL3 requirements.

**AST** - The Annual Surveillance Test is a mini-QAL2 performed annually to verify the continuing validity of the calibration function. As the CEMS supplier, ABB is best placed to support your annual requirements.

### Service packages designed for BS EN14181

ABB has developed service packages specifically designed to ensure compliance with BS EN14181 requirements. As the UK's leading supplier of CEMS systems, these service packages have been selected by over 100 UK customers to ensure availability and adhere to compliance regulations. In addition to dedicated annual service contracts, ABB's service packages include provision of the following components, which can be tailored to suit your specific needs.

### Certified OEM engineers

ABB have led the way by developing a global framework for certification of ABB CEMS engineers, ensuring that ASTs can be carried out by technology experts, to provide continuity for reliability and maximise the availability of your equipment.

**Level I Certified Engineers** - Factory and field trained, experienced engineers for on-site support.

**Level II Certified Engineers** - Specialists with comprehensive and extensive experience for the product range.

**Level III Certification** – Manufacturing service support groups.

### Remote diagnostics support

ABB's certified engineers have the ability to dial-in remotely to modems connected to your CEMS equipment to quickly identify and rectify simple issues, if they appear.

### 24/7 telephone support

ABB's UK Coordination centre provides the gateway to a team of gas analyser certified engineers that provide technical support where it is required by your site personnel.

### 24/7 spares availability

With a large number of our UK customers requiring guaranteed availability of spare parts at short notice, ABB has developed a solution that reduces high inventory costs and is integrated within the EN14181-based service packages. For a small annual fee, ABB will hold critical parts within UK stores for guaranteed availability when you require them.

### Next day call-out

The critical nature of continuous monitoring systems mandates that when field support is required, it is essential that the response is immediate. To manage the 97% availability requirements of the legislation, ABB integrates next day call-out of certified engineers into the service package. There are always certified gas analyser field engineers ready to respond to your urgent requirements.

### Training

Continuous emissions monitoring systems are at the premium end of the instrumentation spectrum, with increased complexity that requires specific training to operate and maintain. ABB offers a full range of training packages on CEMS equipment, tailored to meet the requirements of your site personnel.



For more information please contact:

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