

## **The UK regulatory framework (Extract from the Gov.uk website)**

### **Legislative framework relevant to stack emission monitoring (Extract from Environment Agency's Technical Guidance Note M2)**

#### **Why carry out stack-emission monitoring?**

The main reasons for carrying out stack emission monitoring are:

- compliance with environmental legislation;
- collecting data for emissions-inventory compilation;
- calibration of continuous emission monitoring systems (CEMs);
- collecting data for environmental impact assessments;
- collecting data to assess process efficiency and process control;
- assessing the performance of a pollution-control device (abatement system).

The current legislative framework affecting the monitoring of stack emissions is outlined below.

#### **European directives**

The European Union (EU) has drawn up directives stating the objectives that must be achieved to control pollution. The requirements of these directives must be adhered to by member states of the EU.

The Air Framework Directive 84/360/EEC sets out plans for a number of daughter directives, which seek to control emissions from a wide range of processes in a number of industrial categories.

Of particular significance to stack emission monitoring is the Industrial Emissions Directive (IED). It replaces a number of directives including the Integrated Pollution Prevention and Control Directive (IPPCD), the Waste Incineration Directive (WID) and the Large Combustion Plant Directive (LCPD). The IED specifies the use of Comité Européen de Normalisation (CEN) standards for monitoring and calibration.

The IED has been transposed into UK law via the Environmental Permitting Regulations. It applies to all new installations. Existing installations have implementation dates depending on the type of industrial activity and whether they are subject to the current IPPC Directive. The full implementation of the IED will be by January 2016.

### **Environmental Permitting Regulations**

The Environmental Permitting (England and Wales) Regulations (EPR) came into force in April 2008. EPR replaced the Pollution Prevention Control (PPC) and Waste Management Licensing (WML) regimes. All PPC Permits and WML automatically became environmental permits. EPR was revised in 2010 to extend it to cover water discharges and groundwater activities, radioactive substances, mining installations and waste and has been amended again in 2013 to implement the IED.



## **Environment Agency (EA) Technical Guidance Note (TGN) M2 Monitoring of emissions to air**

The EA's TGN M2 covers the correct choice of monitoring approach, technique, method and equipment. TGN M1 covers sampling and safety requirements. Encompassing all of this is the EA's Monitoring Certification Scheme: MCERTS, which provides performance standards to improve the quality of regulatory monitoring. TGNs M1 and M2 are key reference documents underpinning MCERTS for stack emission monitoring.

MCERTS is the EA's Monitoring Certification Scheme for instruments, monitoring and analytical services. The scheme is built on proven international standards and provides industry with a framework for choosing monitoring systems and services that meet the regulators' performance specifications. MCERTS reflects the growing requirements for regulatory monitoring to meet European and international standards. It brings together relevant standards into a scheme that can be easily accessed by manufacturers, operators, regulators and test houses. Further information on MCERTS is available at [www.mcerts.net](http://www.mcerts.net).

The general requirements for the competence of testing laboratories are described in International Standard EN ISO/IEC 17025. This contains the general requirements laboratories have to meet if they wish to demonstrate that they operate a quality system, are technically competent, and are able to generate technically valid results. EN ISO/IEC 17025 recognises that it may be necessary to supplement EN ISO/IEC 17025 for some testing activities, for example, specific types of monitoring such as stack emission monitoring. As such, CEN has published CEN TS 15675. Measurement of stationary source emissions - Application of EN ISO/IEC 17025 to periodic measurements.



MCERTS for stack emission monitoring requires organisations to meet the requirements of both EN ISO/IEC 17025 and CEN TS 15675. Some sections of CEN TS 15675 require the competent authority to make decisions on how best to implement the standard in their member state. For example, two different approaches are given for demonstrating personnel are competent; one is to use a personnel competency scheme the other is to use a combination of academic qualifications and assessment of work carried out. Under MCERTS the approach is to use a personnel competency scheme.

The main areas defined in the MCERTS performance standard are as follows:

- use of MCERTS certified personnel;
- use of Environment Agency Method Implementation Documents (MIDs);
- detailed requirements for a:
  - risk assessment
  - site-specific protocol (measurement plan);
  - reporting of results
- use of alternative methods based on instrumental techniques

TGN M2 is a key reference document for MCERTS for manual stack emissions monitoring in selecting appropriate methods following, where possible, international standards.

### **Reference**

Environment Agency (2013) *Technical Guidance Note (Monitoring) M2 Monitoring of stack emissions to air* Version 10. October 2013.

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/301145/TGN\\_M2\\_Monitoring\\_of\\_Stack\\_Emissions\\_to\\_Air.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/301145/TGN_M2_Monitoring_of_Stack_Emissions_to_Air.pdf)