

## MCerts

27.29 MCerts was established by the Environment Agency to deliver quality environmental measurements. The scheme provides for the product certification of instruments, the competency certification of personnel, and the accreditation of organisations based on international standards. More information can be found on the Environment Agency website [www.mcerts.net](http://www.mcerts.net).

27.30 The following guidance was issued following a Defra/WAG consultation exercise in 2003.

### Continuous emissions monitors (CEMS)

27.31 Some of the process guidance (PG) notes for LAPPC activities and installations specify the use of continuous emissions monitors. CEMs (not to be confused with continuous indicative monitors) are normally either extractive stack emission monitoring instruments where a sample of the gas is drawn from the chimney stack or duct, generally through a sample condition line, into the measuring cell; or cross-stack or *in situ* emissions monitoring instruments, where measurements of the target species are made directly within the gaseous atmosphere of the stack or duct.

27.32 Defra and WAG are concerned to ensure that CEMs that are used are 'fit for purpose' – that they can reliably show whether the particular emission limit value (ELV) is being breached or not.

27.33 Defra/WAG recognise that instruments approved under MCerts can generally be expected to produce measurements with less uncertainty than CEMs which have not been approved. However:

- a) if the uncertainties/tolerances of a non-approved instrument are known/calibrated, the instrument is appropriate for the measurements in question, and the measurements show compliance with relevant ELVs taking account of those tolerances, and
- b) given that Part B processes and installations are generally characterised by having a lower pollution potential compared with Part A processes/installations, as well as there being a preponderance of SMEs,

it is the view of Defra/WAG that if the use of MCerts instruments would incur additional expense in such cases, they would not normally

represent BAT. There might though be cases where, because for example of the size or nature of a particular emission, an MCerts CEM it is considered to represent BAT notwithstanding that the existing CEM meets the above criteria.

- 27.34 On the other hand, if in any case the difference in cost between a ‘fit for purpose’ unaccredited CEM and a MCERTS-accredited instrument was negligible, it would generally be reasonable to expect the operator to opt for the latter when installing a new CEM or replacing an existing one.
- 27.35 Where, taking account of the uncertainties/tolerances, the pattern of measurements using an existing CEM show that they are close to or could exceed an ELV, the operator should be offered the option of taking steps to further reduce emissions or install an instrument with narrower tolerances (which may well be an MCerts-certified instrument).
- 27.36 If there are cases where the uncertainties of existing CEMs are not known or have not been quantified, local authorities should require such quantification to be undertaken by the operator so as to be able to judge the instrument’s suitability. If this is not feasible or not carried out, it should be replaced with an instrument with known tolerances.

### **Stack emission monitoring**

- 27.37 Manual stack emission monitoring is widely used for regulatory monitoring of LAPPC activities. It is used for providing spot checks on emissions for comparison with ELVs. It is also used for the calibration of CEMs. The MCerts scheme for manual stack emission monitoring has been developed in collaboration with the Source Testing Association and others.
- 27.38 The MCerts scheme has two elements: certification of personnel and accreditation of organisations.
- 27.39 Personnel are certified to the MCerts personnel competency standard.. There are two competency levels, preceded by a ‘trainee’ stage. Level 1 requires basic competence and understanding of manual stack emission monitoring, and personnel achieving this standard are competent to conduct stack testing as part of a team led by a Level 2 person. Level 2 requires more advanced competence, and a Level 2 person will be responsible for the overall quality of monitoring work carried out on site and for the quality and correctness of the monitoring report. Certificates of competence are valid for five years.
- 27.40 Accreditation of organisations is by UKAS to ISO 17025. The standard includes requirements for MCerts-certified personnel to be used, management structure to be independent, use of appropriate methods following international standards, planning of a monitoring campaign including carrying out risk assessments, reporting of results, and participation in proficiency testing.

- 27.41 Good health and safety practices are essential when carrying out extractive testing, and Defra/WAG recognise the important focus of the MCerts scheme on health and safety matters. Local authorities may like to be aware of a booklet produced by the Source Testing Association “Risk Assessment Guide: Industrial-emission monitoring” (also known as the Yellow Book), available free from the STA [www.s-t-a.org/](http://www.s-t-a.org/) . However, as stated in paragraph 6.29 of the Manual, permits should not contain conditions whose only purpose is to secure the health of people at work – that is the job of the Health and Safety Executive or, where appropriate, local authority officers enforcing health and safety legislation.
- 27.42 Defra/WAG consider that accreditation of organisations for stack emission monitoring will normally be more extensive than is necessary for the regulation of LAPPC activities/installations. There may, however, be controversial or otherwise sensitive cases where employment of an organisation with the benefit of accreditation will be desirable. Also, if there is a choice between use of an accredited and non-accredited organisations, and all other matters are equal, the former should be preferred.
- 27.43 Defra/WAG consider that use of MCerts-certified personnel is desirable, but that each case should be judged on its merits. Many external contractors will provide personnel with such certification and Defra/WAG consider that local authorities and operators should generally favour such contractors. Those operators using in-house monitoring services should be encouraged to secure certification for their personnel, but it is not envisaged that this should be made a requirement unless there are good reasons in a particular case (eg in the sort of cases described iabove). (One of the issues relating to in-house monitoring services is that they can be undertaken by a single operative, which may have health and safety implications - although, for the reasons given above, this is ultimately not a matter for local authority regulators).

### **LA-IPPC installations**

- 27.44 There is separate guidance on the use of MCerts for installations regulated under the local authority IPPC regime, which can be found in the paragraphs headed ‘monitoring’ in each of the sector guidance (SG) notes.