

Further information

For further information on MCERTS for manual stack-emission monitoring, including the MCERTS performance standards for personnel and organisations and examination syllabuses, please visit the Agency website at www.environment-agency.gov.uk/business/mcerts/
For information on MCERTS personnel certification, or if you are interested in making an application, please contact:

Sira Certification Service
South Hill
Chislehurst
Kent, BR7 5EH
Tel: 020 8467 2636
Fax: 020 8295 1990
email: certification@siratc.co.uk

For information on becoming an MCERTS accredited organisation, please contact:

UKAS
21-24 High Street
Feltham
Middlesex, TW13 4UN
Tel: 020 8917 8400
Fax: 020 8917 8500
email: info@ukas.com

If you have any general questions about MCERTS, please contact:

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MCERTS
for manual
stack-emission
monitoring



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Introduction

MCERTS is the Environment Agency's Monitoring Certification Scheme. The scheme is built on proven international standards to deliver good quality monitoring data. MCERTS provides for the product certification of instruments, the certification of personnel and the accreditation of organisations under European and international standards.

MCERTS promotes public confidence in monitoring data, and provides industry with a proven framework for choosing monitoring systems and services that meet the Agency's performance requirements.

Background

The Agency is moving towards increased reliance on operator self-monitoring. This policy is well established for processes regulated under Integrated Pollution Control (IPC) but is now being extended into other regulatory regimes such as Pollution Prevention and Control (PPC) and the Urban Wastewater Treatment Directive (UWWTD).

The Agency needs to have confidence in the quality of operator monitoring. This is the role of MCERTS to establish a growing series of performance standards for monitoring activities, together with testing and certification to these standards. When operators demonstrate they are meeting these standards, the Agency and the public can be confident about the quality of their monitoring data.

MCERTS for manual stack-emission monitoring has been developed in collaboration with the Source Testing Association to set the standards for stack-emission monitoring and provide a level playing field in the competitive market for this important element of regulatory monitoring.

Benefits of MCERTS

The benefits of MCERTS for stack-emission monitoring are that it:

- assures regulatory authorities that stack-emission monitoring to MCERTS standards is fit for purpose and capable of producing results of the required quality and reliability;
- gives users of the monitoring services confidence that they conform to the Agency's performance standards;
- supports the delivery of accurate and reliable monitoring data to the public;
- is formally recognised by regulatory authorities within the UK.

Structure of the scheme

MCERTS for manual stack-emission monitoring is split into two components: the certification of personnel and the accreditation of organisations.

Certification of personnel

Personnel are certified to the MCERTS personnel competency standard by Sira Certification Service (SCS). They operate the scheme on behalf of the Agency. SCS is accredited by the United Kingdom Accreditation Service (UKAS) to the requirements of EN 45013 (General criteria for certification bodies operating certification of personnel).

The MCERTS standard defines the competency requirements for personnel carrying out manual stack-emission monitoring. The standard identifies an entry level and two competency levels.

MCERTS entry level (trainee) – New entrants into the stack-emission monitoring profession will register as trainees, and undergo a formal induction to the industry as well as supervised in-house training. This includes a requirement to attend a course on working at heights and receive training on health and safety and other issues. Personnel at this level are allowed to conduct stack-emission monitoring only under direct supervision of a Level 2 person. Most individuals should progress from a trainee to MCERTS Level 1 in six to 12 months.

MCERTS Level 1 – This level requires basic competence and understanding of manual stack-emission monitoring. Personnel achieving this standard are competent to conduct stack-emission monitoring as part of a team led by a Level 2 person.

To qualify for MCERTS Level 1 individuals must:

- gain a minimum of six months experience as a MCERTS trainee;
- have performed manual stack-emission monitoring on at least 10 stacks under direct supervision of a Level 2 person;
- keep a comprehensive personal record documenting all training and experience;
- pass a written examination on stack-emission monitoring, which includes an assessment of health and safety knowledge and awareness.

MCERTS Level 2 – This level requires a person to have advanced competence and understanding of manual stack-emission monitoring. This is the competency level required for individuals to be able to supervise other stack-emission monitoring personnel and lead manual stack-emission monitoring assignments.

To qualify as MCERTS Level 2 individuals must:

- gain at least six months experience at MCERTS Level 1;
- have competently performed manual stack-emission monitoring on at least 10 stacks at Level 1;
- keep a comprehensive personal record documenting all training and experience;
- pass written and oral examinations, which contain elements on team management, supervisory skills and report writing;
- pass one or more technical endorsements in the appropriate categories.

Progression by technical endorsements

To attain MCERTS Level 2, personnel must demonstrate advanced competence and understanding of one or more technical endorsements.

Technical endorsements group manual stack-emission monitoring methods into five categories:

- particulate monitoring by isokinetic sampling techniques;
- multi-phase sampling techniques;
- gases/vapours by manual techniques;
- gases/vapours by instrumental techniques;
- particle size fractionation by isokinetic sampling techniques.

Technical endorsements can be taken by personnel who have carried out monitoring specific to the endorsement on at least five separate occasions at Level 1. For example, a candidate who has undertaken instrumental sampling for gases can take the gases/vapours by instrumental techniques endorsement. However, the scheme recognises that the particulate monitoring by isokinetic sampling techniques endorsement is a key endorsement. The endorsements covering multi-phase sampling techniques and particle size fractionation can be taken only by a candidate who has passed the particulate endorsement. Also, personnel who have the particulate endorsement can take any of the other endorsements without prior site experience.

Certification body

Applications for certification are made to SCS. It is responsible for assessing the record of experience submitted by applicants as well as the setting and holding of examinations.

SCS assesses whether a candidate complies with the MCERTS standard. If the candidate meets the requirements, SCS will award a certificate of competence to the individual detailing the scope of their competency. The certificate is valid for five years.

MCERTS register of personnel

SCS maintains a MCERTS register of certified personnel. This includes an outline of the scope of each person's certification. This can be used for reference purposes by relevant bodies such as regulators, UKAS and by organisations for confirming the certification of an individual.

Reassessment of personnel

Individuals are required to keep a comprehensive record of their on-going training and experience. This record can be maintained on MCERTS provided forms and kept in a personal logbook.

There will be a reassessment of an individual's certification every five years. The reassessment will consist of a review of the person's experience and the re-taking of examinations appropriate to their scope of competency and recorded experience.

Transitional arrangements

Transitional arrangements are in place for individuals currently working within the manual stack-emission monitoring industry who can demonstrate relevant past experience. These arrangements enable personnel to go straight to Level 1 or Level 2 on passing the relevant examinations. The arrangements will be in place until August 2003.

Competency requirements

Syllabuses are published that provide information on the scope, detail, topics and activities that are included in the examinations for each level/technical endorsement to demonstrate competency. It is expected that training providers will use these to develop appropriate courses.

Accreditation of organisations

The Agency requires organisations that wish to undertake MCERTS approved monitoring to be accredited by UKAS to the international standard ISO17025 (General requirements for the competence of testing and calibration laboratories) for the MCERTS performance standard for organisations.

The performance standard includes the following elements:

- ethical requirements;
- use of MCERTS certified personnel;
- selection of appropriate methods following international standards;
- method implementation;
- estimation of measurement uncertainty;
- use of appropriate equipment;
- planning of a sampling measurement campaign
 - site review
 - risk assessment
 - site-specific protocol;
- reporting of results;
- participation in proficiency testing schemes.

Scope of accreditation

Accreditation of stack-emission monitoring organisations under MCERTS is granted for sampling procedures and measurements for a specific scope of substances. For example, an organisation may seek accreditation for just particulate monitoring.

Application for accreditation to UKAS will require organisations to produce their own quality manual and procedures following the MCERTS requirements. UKAS will then assess whether the applicant's documentation and practices for the scope of work they have applied for conforms to ISO 17025 for the MCERTS performance standard. If satisfied, UKAS will issue a certificate of accreditation stating that the organisation is accredited to carry out specified stack-emission monitoring in accordance with ISO 17025 for the MCERTS performance standard.

Surveillance visits and reassessment

UKAS will carry out annual surveillance visits to ensure continuing conformance with ISO 17025 for the MCERTS standard. The certificate is valid for four years, after which time the organisation will be subject to a full reassessment by UKAS.

Database of MCERTS organisations

An organisation that has achieved accreditation by UKAS for the MCERTS standard will be listed on the UKAS database for the particular scope of substances for which it has gained accreditation. This database is published by UKAS and can also be accessed via the Agency MCERTS website.

Health and safety

Stack-emission monitoring is a hazardous activity. MCERTS recognises that the health and safety (H&S) of personnel carrying out stack-emission monitoring is paramount.

All stack-emission monitoring personnel undertaking work under MCERTS will have to meet the requirements of the personnel certification standard. This requires trainees to undertake a recognised course in working at heights. The personnel certification scheme will also examine a candidate's knowledge and awareness of H&S issues.

Stack-emission monitoring organisations are required to implement a H&S policy addressing the hazards and associated risks to H&S as part of their accreditation to the MCERTS performance standard for organisations.

The H&S requirements ensure that stack-emission monitoring organisations have a H&S management system and follow safe systems of work. For example, undertaking risk assessments before commencing work. UKAS will audit whether these systems are in place. Also, if poor H&S practices are observed when carrying out routine on-site assessments, they will inform the Agency. The Agency will then inform the relevant site inspector and H&S office.

Financing of the scheme

MCERTS for stack-emission monitoring is self-financing but great effort has been taken to keep costs to a minimum. Personnel certification is funded by charging for the relevant examinations. Organisations will have to obtain and maintain UKAS accreditation for the MCERTS standard covering their scope of work.