



cem solutions
CONTINUOUS EMISSIONS MONITORING

Briefing Note:

Updated Guidance on Quality Assurance for Continuous Emissions Monitoring Systems

Source: www.gov.uk/government/publications/m20-quality-assurance-of-continuous-emission-monitoring-systems

16th July 2025

CEM Solutions would like to make all clients and partners aware that the Environment Agency has recently published revised guidance on the quality assurance of continuous emissions monitoring systems (CEMS), the updated document formerly known as M20.

As a result, all UKAS-accredited test houses will now be updating their internal procedures to reflect these changes and will seek reaccreditation with UKAS. This process is expected to be completed by July 2025.

What You Need to Do

We strongly encourage all operators to familiarise themselves with the new guidance. For your convenience, we've highlighted key updates in Appendix 1 below.

Helpful Tools

The Environment Agency has provided online tools to assess any changes in QAL2 factors within allowable measurement uncertainties. These should now be part of your Environmental Permit compliance checks.

New Reporting Requirements

In addition to the updated guidance, the Environment Agency has introduced additional reporting obligations for:

- Large Combustion Plants (LCP)
- Waste incinerators and co-incinerators

Operators will now be required to report the results of their Annual Surveillance Tests (ASTs) and QAL2 tests, including:

- Whether the variability and calibration validity tests pass for each monitored pollutant.
- Details of any AST failures and subsequent investigations.
- The date of QAL2 tests and any new calibration functions.
- When new calibration functions are entered into your Data Acquisition and Handling System (DAHS).

For LCPs, reporting will use the new CEM2 and CEM3 forms available via the Energy UK website. These must be submitted within the same quarterly reporting period in which the AST or QAL2 is completed.

For waste incinerators and co-incinerators, updated Air 9 Forms should be used and submitted within the relevant six-month reporting period.



Permit Compliance – Your Responsibilities

As the legal operator, you are responsible for ensuring full compliance with your environmental permit, including all monitoring activities and work carried out by third-party contractors (e.g. UKAS-accredited MCERTS test houses). This means you must:

- **Review calibration functions:** Compare old and new values; investigate any significant differences with your monitoring contractor. We have developed a helpful spreadsheet to support this – please contact us if you would like a copy.
- **Check your DAHS:** Confirm the new calibration function is correctly entered.
- **Monitor performance:** Within three months of updating the DAHS, review plant emission levels and, where relevant, reagent consumption rates to detect any anomalies.
- **Audit your contractors:** Regular audits are essential to secure a satisfactory score in any Operator Monitoring Assessment (OMA) Audit.

Please remember: any non-compliance with BS EN 14181 – including missed or failed surveillance tests or QAL2s – can result in non-compliance scores under the Compliance Classification Scheme (CCS).

Key Reminder

In line with BS EN 14181:2014, Section 8.6, ASTs must always be carried out, failures must be investigated, and any issues resolved before undertaking a new QAL2. This ensures systemic drift in the CEM is identified and managed appropriately.

We're Here to Help

CEM Solutions is fully up to speed with these updates and ready to support you in understanding, implementing, and complying with the revised guidance. Please reach out to your CEM Solutions contact if you need any advice, tools, or templates to help integrate these changes into your management system.

Appendix 1

Summary of Changes in Revised Guidance

(Published March 2025) Key Sections Updated:

- 3.1** Repairs to be completed within 6 months.
- 3.7.3** Uncertainty allowance for SRM now 20% of ELV, or 1 mg/m³ for ELVs below 5 mg/m³.
- 3.7.4** Clarification when you cannot calibrate particulate CEMS.
- 3.7.5** Inclusion of NOx raw data; calibration functions for NOx.
- 3.7.17** 50% Confidence Interval for particulates at or below 5 mg/m³.
- 3.8** QAL2 trigger level increase from 5% to 10%.
- 3.11** Extending the calibrated range for CCGT and solid fuel stations.
- 3.14** QAL2 report – additional details may now be required.
- 4.1** QAL3 general – updated suggested SMS for waste incinerators.
- 5.3** AST failures – added guidance on annual QAL2s and investigating failures.
- 7(1.1)** Report template: Record previous calibration function; check for >10% variation.

If you have any questions about how these changes affect you, please don't hesitate to get in touch with the CEM Solutions team.

