

WORSHIPFUL COMPANY OF WATER CONSERVATORS

**THINK-PIECE ON
REBUILDING PUBLIC TRUST IN WATER SERVICES IN ENGLAND AND WALES
THE TRUST IN MONITORING**

SUBMITTED TO THE INDEPENDENT WATER COMMISSION

FEBRUARY 2025

SUMMARY

This Think-Piece summarises the origins of the current systems of monitoring sewage discharges, particularly of treated sewage effluent. It outlines some of the current high profile media angst regarding the robustness of the systems and the causes of misinformation and confusion. It also seeks to set out the facts about the systems and recognises that current advice is disparate and out of date.

There has been a great deal of criticism of the way in which monitoring of sewage discharges has been conducted, in spite of the fact that the existing processes are based on quality assurance principles. The guidance is disparate, sometimes confusing, and couched in terms which do not address the need for the wider public to understand how such monitoring is conducted. There have also been shortfalls in practice.

The WCWC therefore suggests a pragmatic way forward with credible actionable recommendations. It builds on existing frameworks, requires no major regulatory overhaul (only in statutory guidance), and offers a clear pathway to improved monitoring and public trust.

The WCWC will be pursuing this in partnership with the BSI. It is recognised that this will ultimately need the leadership of water companies and the regulators. The intention is to ensure that there is proactive engagement with other key stakeholders, such as public interest groups.

The WCWC proposes that the MCERTS system should be reviewed, refreshed and relaunched as an integrated system of Monitoring Quality Assurance based on a new ISO 9001 standard and ISO 17025. It will be extended to cover all aspects of discharge monitoring. Having a new ISO standard with a better title will help to rebuild trust. One particular feature would be the appointment of a Company Monitoring Assurance Manager akin to a Company Health and Safety Manager, and this could be done now under the current system without the wait for the new standard. The WCWC suggests that the BSI should be charged to work with the regulators in developing this standard.

All of the current statutory Guidance should be brought together in one document, which will incorporate the requirements to conform to the ISO standards and be incorporated into discharge permits. There must be more

concise articulation of the roles of the different parties, including the Environment Agency itself and of what is meant by ‘compliance’ This would not require any new or revised regulations. The details of the suggestion are set out at the end of this Think-Piece.

REASON FOR SUBMITTING THIS THINKPIECE

1 This Think-Piece is submitted by the Worshipful Company of Water Conservators (Footnote 1) to the Water Commission as early evidence on what has been in train for the past year, in order to assist in informing the Call for Evidence.

2 On the 27th of January Sir John Cunliff, Chair of the Independent Water Commission, announced, in a press release, membership of the Expert Advisory Group, and stated *‘I know their insight and experience will be invaluable in recommending meaningful and long-term reforms to rebuild the trust that has been lost and deliver a thriving and sustainable water sector for the future. I look forward to our work together in the coming months’*. On the 26th January in its response to the Guardian article on sewage effluent monitoring, Defra implied that this would be part of this review, to shape future legislation:

Expert advisory group appointed by independent water commission - GOV.UK
Anglian Water passed thousands of pollution tests at sewage plants that weren't carried out | Water industry | The Guardian

3 In the recent debates about trust, there has been a great deal of angst about the reliability of sewage effluent monitoring data arising from water companies, with major criticism being aimed at the notion of operator self-monitoring of sewage effluents; other criticisms include failure of event duration monitors for combined sewer overflows, the discharge of combined sewage at times not covered by permits, the monitoring of dry weather flow of sewage and the reporting of data deemed to be non-conforming. The criticisms, therefore, come in two parts; the technical measurements and the reporting of data produced therefrom.

4 The most recent criticism in the Guardian article has shown a divergence of views about how ‘no flow’ sampling visits should be included or excluded. This debate shows that urgent efforts of clarity are needed.

5 This Think-Piece will make reference to the ‘no flow’ issue later. The reason for including this specific reference is that evidence was to be submitted to the Commission in the following week on this topic for which the WCWC has been seeking a new way forward, based on the basic principles of Quality Assurance.

6 Another piece of a fragmented regulatory and policy regime (about which the WCWC has also expressed concerns) is the Consultation by Defra, which closed on the 24th January, on draft statutory guidance on storm overflows. This referred to earlier still draft guidance of 1997 on the 1994 Regulations implementing the 1991 Urban Waste-Water Treatment Directive (UWWTD). Yet it ignores the Guidance of 2018/2020 in which the principles of the current monitoring programmes are set out, based on the 1994 Regulations and the 2016 Permitting Regulations.

BACKGROUND

Treated Sewage Effluents

7 The monitoring of sewage discharges, in all its forms, has been evolving over many decades. That of the modern systems for the qualities of sewage effluents has its origins in 1985. It was agreed that a 95 percentile approach based on 24 hour composite samples for sanitary determinands (principally BOD and suspended solids and the so- called look up table with an upper limit) was the most appropriate system for assessing the impact of discharges on rivers, particularly in river quality modelling. It applied to all sets of limits, not just the 'Royal Commission' limits. This is still the fundamental basis of discharge permits. It was adopted by the EU in the Urban Waste Water Directive (UWWTD) expressed through 1994 UK regulations, which survived Brexit. The focus is a BOD limit slightly higher than the Royal Commission standard, but the Regulations provide for more stringent limits. There are some embellishments which are discussed later. To be absolutely clear, no discharge can have limits less stringent than those proscribed in the UWWTD, but may have limits more stringent .. even the Royal Commission limits fall into this category. Compliance with the Regulations and with the established more stringent approach, run in tandem.

8 The conditions satisfy the basic principles that a discharge must be fit for purpose, not cause environmental harm, not prescribe unfairly any observations of monitoring data as assigning failure to comply and must not waste investment resources. It has been considered that spot samples can provide too much statistical variability to be a reliable basis for statutory purposes as far as regulation of the biological process of sewage treatment is concerned. One error is that monitoring and compliance programmes can be based on different principles to those used to set permits. So, in this instance it is not appropriate that spot samples should be used as basis for statutory compliance.

9 The 1985 regime was updated in 2009 and given the title Operator Self-Monitoring.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/646803/LIT_6898.pdf

This introduced the concepts of Quality Assurance. And was given more structure in guidance, for example in 2018 and 2020.

<https://www.gov.uk/government/publications/water-companies-operator-self-monitoring-osm-environmental-permits/water-companies-operator-self-monitoring-osm-environmental-permits>

[https://www.gov.uk/government/publications/waste-water-treatment-works-treatment-monitoring-and-compliance-limits/waste-water-treatment-works-treatment-monitoring-and-compliance-limits#:~:text=You%20must%20monitor%20discharges%20of,chemical%20oxygen%20demand%20\(%20COD%20\)](https://www.gov.uk/government/publications/waste-water-treatment-works-treatment-monitoring-and-compliance-limits/waste-water-treatment-works-treatment-monitoring-and-compliance-limits#:~:text=You%20must%20monitor%20discharges%20of,chemical%20oxygen%20demand%20(%20COD%20))

<https://www.gov.uk/guidance/monitoring-discharges-to-water-guidance-on-selecting-a-monitoring-approach>

<https://www.gov.uk/government/publications/calculating-dry-weather-flow-dwf-at-waste-water-treatment-works/calculating-dry-weather-flow-dwf-at-waste-water-treatment-works>

10 The Guidance is spread out over more than one document. The overall focus of permitting and compliance is still the composite sample look up table approach for BOD and suspended solids limits. Most sewage effluent permits are defined by limits more stringent than the UWWTD Regulations, by virtue of established UK practice or by the requirements of other Regulations, such as those implementing the Water Framework Directive in 2017. It also provides for other determinands, which may be single value rather than percentile. And it introduced a more formal role of spot (also called grab) samples. The WCWC agrees that, in order to understand the volatility of the processes, it is reasonable that the statutory samples should be supplemented by operational spot samples (and that includes monitoring by the Water Companies and the 'drop in' inspections by the Environment Agency (EA)). The 2020 Guidance on monitoring does not articulate the difference clearly enough and this has been the source of some confusion.

11 The WCWC suggests that these two monitoring streams for BOD and suspended solids should be clearly identified, which the WCWC names, pro tem, Statutory Sampling and Operational Sampling (it might well be that if there is a wish to include properly obtained 'citizen science' samples, these could be included in this cadre of data). N and P compliance under the Regulations is based on annual averages of composite samples or percentage reduction in treatment (which will require composite sampling of incoming sewage as well as effluent). The clarity of even this approach is complex, because spot samples may be used for statutory compliance assessment of non-sanitary determinands. This is provided for in current Guidance, but needs to be articulated more clearly.

12 The current Quality Assurance process is complex. As set out in the Guidance, MCERTS, is the EA's Monitoring Certification Scheme for environmental permit holders. It is used to approve people, instruments and laboratories including monitoring of flow. It was initiated in 2014 and updated last in 2024. Outline details are given in Footnote 2.

13 This includes prescription of Operator Monitoring Assessment OMA. Discharge permits set out requirements for self-monitoring of discharges to water. The Environment Agency checks these requirements using OMA. The EA can 'drop in' and take independent spot samples, as elaborated earlier. Laboratories and analytical systems are certified separately.

[https://www.gov.uk/government/collections/monitoring-emissions-to-air-land-and-water-mcerts#operator-monitoring-assessment-\(oma\)](https://www.gov.uk/government/collections/monitoring-emissions-to-air-land-and-water-mcerts#operator-monitoring-assessment-(oma))

14 There was a great deal of continuing criticism of how much checking the EA actually did, partly because the resources available to it did not leave it enough to fulfil its role as a regulator and QA verifier. This now being rectified.

15 In 2023 Defra defended the system *The use of operator self-monitoring brings water and sewerage companies in line with other industries which have been monitored in this way for many years e.g. waste and chemical sectors. Under the polluter pays principle, they should also be the ones paying for it.*

<https://environmentagency.blog.gov.uk/2024/03/27/2023-event-duration-monitoring-data-publication/>

16 The Environment Agency not only issues permits proscribing limits and OSM processes, it also has an oversight of Quality Assurance through UKAS and CSA Group Testing UK as the Certification Body for the OSM processes (except for laboratories), and the parallel role of independent monitoring and prosecution for compliance failure. Verification of what the water companies are doing is quite complex. A more detailed explanation is given in Footnote 2. It can be argued that if the current system, which is based on good principles, had been applied fully then the origins of the current criticisms would not have occurred. The system is complex and not easily understood and hence has led to divergence in practice and certainly misunderstanding in the wider world.

17 The Guardian article misunderstands the concept of compliance. It states that *The Environment Agency thresholds for compliance for sewage works are strict with the top ranking – a “green status” – at 99% compliance or above of the permit condition, and “red status” at 98% compliance or below. The samples are tested for the levels of pollutants, such as ammonia. It means a few bad results can have a highly significant impact on a water firm’s performance.* It reads as if these are the criteria for compliance of an individual works, and indeed the whole article is about samples (or their absence) from individual works. These have no correlation to the statistics of the look-up table. What in fact is the EA has system of Environmental Performance Reporting.

<https://www.gov.uk/government/publications/water-and-sewerage-companies-in-england-environmental-performance-report-2023/environmental-performance-assessment-epa-star-ratings-2011-to-2023>

<https://www.gov.uk/government/publications/water-and-sewerage-companies-in-england-environmental-performance-report-2023/water-and-sewerage-companies-in-england-environmental-performance-report-2023>

<https://www.gov.uk/government/publications/water-and-sewerage-companies-in-england-environmental-performance-report-2023/water-and-sewerage-companies-in-england-epa-metric-guide-for-2023>

This ascribes an overall statistic for works in a Company, not its individual discharge performance.

For example, for numerical permitted works, for 2021-2025 red status was ascribed for 98% and below, amber status for above 98% and below 99% and green status 99% and above. Green status qualified for a four-star rating. There is no indication in the statistics from the EA of how much non-compliance arises from statutory

composite samples and how much from non UWWTD determinand statutory spot samples. Spot samples taken with respect to UWWTD determinands (or any derived requirements) cannot play any role.

18 The media angst shows that a reset of the current Quality Assurance prescriptions needs to be considered to provide greater confidence, trust and clarity. MCERTS needs to be reviewed and replaced.

19 Very little has been said about the monitoring of works without numerical consents, which are permitted according to General Binding Rules

<https://www.gov.uk/guidance/general-binding-rules-small-sewage-discharge-to-a-surface-water>

20 Compliance is based party on observation of the environmental impact of discharge and of the management of the plant. There is a greater chance of such observations using spot samples. Laboratory analysis will need to be part of MCERTS. So this is a separate and distinct monitoring regime for Water Companies and will require 'drop in' inspections by the EA .This must be included in any revised system.

Event Monitoring of Discharges

21 The Event Duration Monitoring (EDM) programme for combined storm overflows was completed in December 2023. The Environment Act 2021 requires sewerage undertakers to monitor their sewerage assets and publish data from EDMs in near real time. Starting April 1, 2025, any new or replacement event duration monitor must be MCERTS certified. Criticisms have been levelled at monitor operations. And the Storm Overflows Reduction Programme finalized in 2023 imposes extra responsibilities for monitoring. EDM must comply with the requirements of MCERTS.

<https://www.gov.uk/government/publications/mcerts-requirements-for-installing-and-using-event-duration-monitors>

22 The Water (Special Measures) Bill seeks to extend EDM to emergency overflows.

Other Monitoring of Discharges

23 The implementation of Section 82 of the Environment Act monitoring programme is a major task for the water industry. This requires sewerage undertakers to continuously monitor the quality of water upstream and downstream of assets in particular storm overflows and treatment works with numerical permits, de facto from April 2025. This is a challenge waiting for the Water Companies.

24 Compliance with the DWF in permits is becoming more of an issue.

THE WAY FORWARD TO REKINDLE TRUST

25 The problem is that this whole topic is one in which there are clashing cultures, that of the world of biological treatment plant operations which involves quite complex modelling and statistical concepts, in turn meeting the world of soundbite media, wherein, clarity is needed, otherwise confusion arises feeding distrust. Getting this wrong will mean a distortion of liabilities and allocation of resources. This does not gainsay any criticism of bad practices, but it does show that the Guidance is disparate and needs integration. The 2018/20 Guidance is out of date and in need refreshment; any more radical change would require a major rethink of the basic principles and significant changes to regulations. Much greater clarity on the definition of compliance is needed.

26 Without going into the details of drinking water monitoring, the WCWC points out that the principles of operator self-monitoring, accreditation, auditing etc are more clearly articulated for the assurance of the quality of drinking water, which is of more direct importance to the higher risks to human health.

27 The WCWC first put forward some suggestions for a new system for monitoring sewage effluents for compliance with permits, entitled Effluent Quality Assurance in its response to a Defra Consultation on charges in March 2024. This harmonised first with what the Chartered Institution of Water and Environmental Management was thinking.

Sewage effluent assurance: a new future? - CIWEM

28 This, in time, found harmony with the work of the British Standards Institution to develop the application of the principles of ISO 9001 in water management. In doing so extended the concept to include all the discharge monitoring outline above. It understood that this is more than just getting the statistics right (incorrect stats could mean unnecessary investments), yet it is a vital system of building trust with processes recognised and respected across a wide range of other activities.

WHAT IS THE PROPOSAL ?

29 As set put in the Summary, in order to promote public trust in the system, it is proposed that a new standard should be developed under ISO 9000, probably ISO 9001:2015, by the BSI, for integrated monitoring governance in conjunction with the EA. This would use language more clearly understood by the wider world. This overarching approach would replace the current system, while continuing with ISO 17025 certification of laboratories. This was termed Effluent Quality Assurance, in reflecting on the confusion of terminologies, the WCWC has come to understand that the term 'Quality' can have two meanings: first, that referring to the quality of discharge as per the Look Up Table etc, but also to the term 'Quality Assurance' with its wider meaning. Please see Footnote 2. So, the WCWC has no wish to add to that confusion and recommends that the ISO 9001 process should be termed.

Monitoring Quality Assurance. This will include all aspects of discharge monitoring

30 The designated responsible manager, as envisaged now, would be designated more clearly as the Company Monitoring Quality Assurance Manager and given the same status as the Company Health and Safety Manager. To be quite clear, this means being responsible for 'cradle to grave' processes in terms of monitoring, maintenance, sampling, and reporting of data, and working alongside the Company Laboratory Manager responsible for analysis under ISO 17025. All programmes of monitoring would be kept confidential and not shared with plant operations.

31 This would still leave room for certification bodies as approved by UKAS. There is clearly a need for absolute clarity on the role and route of reporting of non-conformance information, alongside actual quality failure of monitors and statutory samples in breach of permits. This clarity will provide some satisfaction to those advocating roles for other parties in these processes. The WCWC points out that the system of operator self-monitoring and external certification and audit, works well for the even more important area of drinking water quality assurance.

32 The WCWC understands the challenge of following this refreshment of process, but it sets out some initial thinking:

[1] The EA (and possibly Natural Resources Wales) sets out the outline of what it wants from a process which addresses quality assurance of integrated monitoring governance. In the case of effluent quality this must be clear in what is expected in terms of Statutory Compliance Sampling (composite and in a limited number of specific non UWWTD determinands, spot samples) and what is required of Operational Sampling (spot sampling).

[2] The BSI converts that into a BSI 9001 standard involving at least the Water Companies and the EA (and possibly Natural Resources Wales). This would entitle an ISO 9001 Standard for Monitoring Quality Assurance of Sewage Discharge.

This standard would have separate sections dealing with each monitoring requirement.

The EA / NRW and Defra / Welsh Government produce one new set of Statutory Guidance to replace all those in place, in which the role and requirements of the regulator is set out including, for example:

[1] The requirements of the new MQA.

[2] How the permits will reflect the MQA.

[3] How non-conformance of the MQA will be used

[4] How the EA will itself inspect and take spot samples and how the data therefrom will be integrated with the Water Company data

[5] How the EA will use data to make judgements on what constitutes non-compliance and what is the basis of the overall Environment Performance Reporting

[6] Water Companies must appoint a Monitoring Quality Assurance Manager with a status the same as a Company Health and Safety Manager. Something similar is actually required even in the current regime, but is not always evident

[7] There are some detailed decisions required which may still be relevant to the technical, media nexus in future. For example, good QA practice requires good document control and formalises current practice. Ad hoc updates are not acceptable. This principle can be inculcated in the processes for the water company ISO standard, and it must apply equally to the Statutory Guidance and not leave it becoming increasingly out of date as years go by. For example, a process is needed whereby updates are incorporated regularly and formally. A good example being the January update on how the EA wishes to deal with 'no flow sampling visits' for spot samples.

[8] When the concept of MCERTS was first launched, the Consultation processes were not as well developed. How and when will these be required in this revamp of processes?

[9] How and when will a new Certifier will be appointed?

Footnotes

Footnote 1

The Worshipful Company of Water Conservators ('WCWC') is a City of London Livery Company focussed on the long-term health of our water resources and the broader environment. Our members include senior professionals from water, environmental and related industries and regulators, along with others who share our concern for water and the environment. Our experience and knowledge ranges from the complexities of environmental sciences, through the application of engineering to deliver the goals identified by those sciences, and the subsequent management of the assets created. The WCWC's purpose is *promoting a diverse and sustainable environment*.

As part of that purpose, the WCWC has been responding to relevant consultations particularly on matters relating to water conservation. These are archived on its website.

Footnote 2

To help understand the underlying principles, the application of quality assurance to the current system is set out

F2.1 Quality assurance can be defined as "part of quality management focused on providing confidence that quality requirements will be fulfilled." The confidence provided by quality assurance is twofold — internally to management and externally to customers, government agencies, regulators, certifiers, and third parties.

F2.2 MCERTS is the Environment Agency's Monitoring Certification Scheme for environmental permit holders. It provides a framework for a business to meet the Environment Agency's quality requirements for emissions monitoring. MCERTS is used to approve people, instruments and laboratories including monitoring of flow. It was initiated in 2014 and updated in 2024.

<https://www.gov.uk/government/collections/monitoring-emissions-to-air-land-and-water-mcerts>

F2.3 It includes Operator Monitoring Assessment.

[https://www.gov.uk/government/collections/monitoring-emissions-to-air-land-and-water-mcerts#operator-monitoring-assessment-\(oma\)](https://www.gov.uk/government/collections/monitoring-emissions-to-air-land-and-water-mcerts#operator-monitoring-assessment-(oma))

Initiated in 2020:

Operator monitoring assessment: environmental permits - GOV.UK

Initiated in 2013:

https://assets.publishing.service.gov.uk/media/5a7488b1e5274a7f99028f58/Industrial_installations_regulated_under_the_EPR_-_discharges_to_water.pdf

Initiated in 2020:

<https://www.gov.uk/guidance/monitoring-discharges-to-water-guidance-on-selecting-a-monitoring-approach#:~:text=The%20Environment%20Agency%20is%20responsible,to%20use%20quality%20management%20systems.>

F2.3.1 The Environment Agency introduced OMA to strengthen its auditing of operators' self-monitoring arrangements, initially to the monitoring of emissions to air from industrial installations regulated under the Environmental Permitting Regulations (EPR) but extended to discharges to controlled water (including public sewers and groundwater) from EPR installations. It uses the OMA scheme to:

[1] Assess the quality and reliability of operators' self-monitoring (including monitoring undertaken on behalf of operators by contractors) as required by their permit.

[2] Identify monitoring shortfalls and potential areas for improvements.

[3] Review the monitoring conditions in the permit.

The quality assurance manual of a water company must include a clear quality policy statement, endorsed by a senior executive. This is to demonstrate the operator's commitment to quality. This policy must encompass all monitoring activities.

A person with overall responsibility for the self-monitoring quality policy (often called the quality manager) must be appointed. The person (or persons) responsible for

controlling and implementing the self-monitoring process (technical management). Organisational charts must be available that include defined lines of responsibility.

Policies and procedures in place to make sure that the independence and integrity of water company sampling and monitoring is maintained and protected them from operational and commercial influences present evidence of this included in the Company's quality manual. There must be a clear document control system in place to make sure that only the latest versions of documents and procedures are authorised and used. The quality manual must contain a procedure to investigate complaints and anomalies regarding the self-monitoring process. There must be an audit trail from defining the sampling programme through to reporting the results.

F.2.4 None of the documents are easily available to the wider public to articulate the basic principles. So, these are set out:

F.2.4.1 ISO Standards

The top of the hierarchy are the ISO standards. ISO is the International Organisation that writes standards for many different industry sectors. ISO 9001, ISO 14001, and ISO 170025 are some of the best known, but there are over 22,000 different ISO standards to date. ISO will review standards and issue updates and write new standards where there is a need.

The ISO 9000 standard outlines the fundamental concepts and vocabulary of quality management defines seven principles that all other quality management standards in this family are based on. These principles include a strong customer focus, the active involvement and buy-in of top management, a process-oriented approach, and a commitment to continuous improvement. In the instance of what is envisaged herein, the standard will be ISO 9001 is a globally recognized standard for quality management. It helps organizations of all sizes and sectors to improve their performance, meet customer expectations and demonstrate their commitment to quality. Its requirements define how to establish, implement, maintain, and continually improve a quality management system (QMS).

Sampling and analysis can be accredited to ISO 17025. This is an international standard that specifies the general requirements laboratories need to meet to demonstrate their technical competence. UKAS accredits laboratories to ISO 17025 for specified tests. This provides independent recognition of a laboratory's competence to perform certain tests or calibrations.

F.2.4.2 MCERTS and ISO Standards

Whilst MCERTS is not directly "ISO 9001" itself, it does require a quality management system that complies with the standards set out in ISO 9001, meaning that to achieve MCERTS certification, a company must demonstrate a quality system that meets the requirements of ISO 9001; essentially making it a necessary component of the MCERTS process in the UK.

Key points about MCERTS and ISO 9001:

MCERTS focus:

MCERTS is a UK-specific scheme that certifies environmental monitoring equipment and processes, ensuring their accuracy and reliability for environmental data collection.

ISO 9001 requirement:

To be MCERTS certified, a company must demonstrate a quality management system that meets the requirements outlined in ISO 9001.

Quality system assessment:

Even if a company already holds an ISO 9001 certification, an MCERTS assessment may include additional checks to ensure the quality system is suitable for the specific demands of environmental monitoring

MCERTS also includes ISO 17025, but as this only specifies general requirements – further explanations may be needed about the general criteria. MCERTS provides such an application for the sampling and analysis of effluents.

F.2.5 Accreditation of Certification Bodies

UKAS oversees them at the highest level in the UK. UKAS is the sole national accreditation body for the UK and is recognised by government. UKAS visit certification bodies to ensure that they and their assessors are performing to a sufficiently high level of services including certification, testing, inspection, calibration, validation and verification. The UKAS works with the EA.

F.2.5.2 Certification Bodies

The next step down is the certification body, which is an independent third party that can conduct external audits on your business. They will visit and audit a business to check for compliance against the ISO standards.

The EA have appointed the CSA Group Testing UK Ltd is the MCERTS certification body and provides certification of equipment, personnel and inspection services. CSA Group is accredited by the United Kingdom Accreditation Service (UKAS) according to the ISO/IEC 17000 series of conformity assessment standards. UKAS accreditation provides confidence in the impartiality, competence and consistency of the certifications provided by CSA Group.

The quality assurance of laboratories is undertaken directly by UKAS for both wastewater and drinking water. As the main text points out the system of operator self-monitoring and external certification and audit, works well for the even more important area of drinking water quality assurance.

Footnote 3

Anglian Water passed thousands of pollution tests at sewage plants that weren't carried out | Water industry | The Guardian

The WCWC offers the following comment. The article is not clear; The Statutory Regime is based on 24 hour composite samples, so the circumstances would be extreme in finding no flow from a sewage treatment works over that period. As the article also suggests correctly that it is possible, particularly for smaller works, for there to be periods of no flow during a twenty-four period. However, the Environment Agency has now tightened its rules from 1 January to require water firms to reschedule samples if there is no flow at the time of treated sewage. Water companies will also have to document when and why no-flows have occurred and make this available for subsequent audit by the Agency. As explained in the text

The WCWC agrees with this approach but not for the Statutory Sampling as per the 2018/20 Guidance and 1994 Urban Waste Water Treatment Directive Regulations.