



## Air Quality in Scotland

Welcome to the 17<sup>th</sup> Scottish Air Quality Database (SAQD) stakeholder's newsletter. This newsletter is produced on behalf of the Scottish Government by Ricardo Energy & Environment (Ricardo) and is designed to provide regular updates and news regarding the SAQD and local air quality matters to all stakeholders. This may include; updates to the network; new information on air quality issues; updates on changes in policy and procedures; new initiatives and events; technical reports; and how to access data using the Air Quality in Scotland website.

If you have any information which you think would be beneficial to include in a future newsletter, please email us at [aq-monitoring-scotland@ricardo.com](mailto:aq-monitoring-scotland@ricardo.com).

### NEWS

#### **CLEAN AIR DAY**

Clean air day was Thursday the 15<sup>th</sup> of June with numerous activities happening across Scotland and the UK.

On behalf of Fife Council, Ricardo provided Clean Air Day Education packs to four Fife primary schools: Crossford Primary School, Hill of Beath Primary School, Masterton Primary School and Dalgety Bay Primary School. Each primary school was provided with three initial presentations for pupils to learn about air pollution, where it comes from and how it is measured, along with additional classroom exercises. Pupils were also invited to take part in a citizen science study and take the lead in designing it around their school environment. Each school was given a number of diffusion tubes so that pupils could sample for Nitrogen Dioxide. A final results presentation will be provided to schools so that pupils can learn about and discuss the results of their study.

The next newsletter will look to highlight some more Clean air day events.

#### **ENVIRONMENTAL STANDARDS SCOTLAND AIR QUALITY INVESTIGATION -SCOTTISH GOVERNMENT IMPROVEMENT PLAN**

This improvement plan sets out the Scottish Government's response to the six key recommendations made by Environmental Standards Scotland following its investigation into air quality. The document can be downloaded from:

<https://www.gov.scot/publications/environmental-standards-scotland-air-quality-investigation-scottish-government-improvement-plan/>

#### **UPDATED LOCAL AIR QUALITY MANAGEMENT TECHNICAL GUIDANCE AND POLICY GUIDANCE DOCUMENTS PUBLISHED**

New Technical Guidance and Policy Guidance documents have been published and are available to download from the Technical Reports section using the following:

<https://www.scottishairquality.scot/technical-guidance/local-air-quality-management-new-technical-guidance-tg22>

<https://www.scottishairquality.scot/technical-reports/local-air-quality-management-new-policy-guidance-pg-s-23>

## **LOCAL AUTHORITY GUIDANCE NOTE FOR LAQM REPORTING OF SCOTTISH PM DATA**

This is a Scottish Government Guidance Note in relation to the measurement of ambient Particulate Matter (PM<sub>10</sub> and PM<sub>2.5</sub>) and the LAQM reporting of measured concentrations – May 2023. This can be found here: <https://www.scottishairquality.scot/technical-reports/local-authority-guidance-note-laqm-reporting-scottish-pm-data>

In relation to the guidance note, the updated annual statistics reports can be found here <https://www.scottishairquality.scot/laqm/statistics>

## **DATA RATIFICATION AND ANNUAL STATISTICS REPORTS 2022**

Fully ratified 2022 datasets are now available on the website for all SAQD sites. The data can be obtained from the data selector function, the individual site statistics page accessed via the site map and also the annual statistics reports. If you have any issues accessing the data or have any queries regarding the data please contact any of the Ricardo team.

Interactive Annual Statistics reports for all Local authorities monitoring sites have been created for the ratified 2022 dataset. The reports provide all the statistical analysis local authorities need for their LAQM reporting as well as providing more detailed analysis such as Calendar plots, Polar Plots and Back trajectory analysis. The reports have also been updated to provide PM<sub>10</sub> and PM<sub>2.5</sub> data that has been adjusted in accordance with recent guidance from Scottish Government. These reports can be found here: <https://www.scottishairquality.scot/laqm/statistics>

## **SCOTTISH AIR QUALITY SEMINAR**

Scottish Air Quality Seminar was carried out on the 15<sup>th</sup>, 22<sup>nd</sup>, 29<sup>th</sup> March 2023. Recordings of these seminars can be found here <https://www.scottishairquality.scot/news/reports/seminars>.

In addition can attendees please take time to fill in this quick 5 minute survey <https://survey.alchemer.eu/s3/90552917/Scottish-Air-Quality-Annual-Seminar-Feedback-Survey>. The data will be used to make improvements in future years for the seminar and the project as a whole.

## **CALIBRATION GAS SHORTAGES**

As you may or may not be aware, there is a general shortage and/or longer lead times in obtaining low concentration calibration gas cylinders for AQ monitoring sites. If you are running low on gas and believe you may run out in the near future we recommend that you reduce the calibration frequency from fortnightly to monthly where appropriate. We would rather have calibrations carried out less frequently than no calibrations at all. If you are already in a position where you can no longer carry out calibrations due to lack of gas please contact one of the Ricardo team as soon as possible and we will look into possible ways to assist.

## **SCOTTISH ENVIRONMENT PROTECTION AGENCY – Written by SEPA**

### **Tackling Air Pollution at School (TAPAS)**

[The TAPAS Network](#) is a multidisciplinary network which brings stakeholders together across academia, education, public policy, civil society and business to develop the research base to design and operate healthy schools. The aim of the work is to build collaboration and discussion via an events programme, working groups, funding research, and by engaging directly with children, schools and parents.

SEPA and the Glasgow Science Centre (GSC) recently presented at TAPAS lunchtime seminars on 20<sup>th</sup> and 27<sup>th</sup> April on the work which has been undertaken in the Stirling Villages Community Engagement Project and the 'Our Amazing Air' Learning Lab. Following the presentations, Q & A and discussion sessions were held with the attendees. A link to the video of each session and the presentations can be found on the [Lunchtime Seminars](#) page of the TAPAS website. For further information please contact: Graham Applegate/Colin Gillespie at SEPA or Fiona Davies/Susan Meikleham at the Glasgow Science Centre.

### **Local Air Quality Management (LAQM) System Update**

In response to the Environmental Standards Scotland (ESS) air quality investigation recommendations the Scottish Government committed to publish [revised LAQM policy guidance which it did in March 2023](#). A brief summary of the main changes to the reissued LAQM policy guidance are outlined here.

SEPA has been provided with an enhanced role and new instructions for using its Section 85 powers. The Scottish Government now expect SEPA to use its powers routinely rather than on a case-by-case basis as was previously the case and these powers can now be used to cover any part of a local authority's duties under LAQM.

The purpose and use of Air Quality Management Areas (AQMA) from declaration to amendment and revocation and been clarified, the approach standardised and the requirement for submission of reports supporting amendment or revocation of an AQMA have been added.

Air quality action planning has been significantly strengthened with their content, milestones, drafting, consultation, submission dates, use and review now set out in the guidance. Action plans are to be published within the shortest possible time and no later than twelve months from AQMA designation.

Existing action plans and those in development are now required to be reviewed and updated within twelve months of the publication of the revised LAQM policy guidance. The role of air quality strategies and need for continued action post-AQMA revocation have also been clarified.

To accompany the updated guidance, SEPA has developed a set of standard templates which can be used for AQMAs and action plans and are available on request. To request the templates, or if you have any questions on any other aspect of the revised LAQM system, please contact SEPA at [airquality@sepa.org.uk](mailto:airquality@sepa.org.uk).

### **Local Authority Activities**

#### **Fife Anti-Idling Campaign**

Fife Council is running an Anti-Idling campaign to highlight how idling vehicle engines contribute to air pollution and impact our health and the environment.

Fife's primary school children have been learning about air pollution and vehicle idling and thinking about the impact on their health, their family's health and how it affects their local environment.

Pupils have been taking part in a poster and banner competition with winning entries being selected by a competition panel. Winning designs will be displayed across Fife at areas of concern as part of the campaign to stop people idling.

For further information on the Anti-Idling Campaign please contact Eloise Griffin at Fife Council.

## SAQD QAQC ACTIVITIES

Ricardo are currently completing the Summer six monthly audits. The auditor will contact you before attending site and an audit summary will be sent to you after each audit visit which will detail their findings. Could you please then pass these on to your ESU's in advance of the service so that any issues can be investigated. If you have not received an audit summary, please contact [aq-monitoring-scotland@ricardo.com](mailto:aq-monitoring-scotland@ricardo.com). If you would like refresher training then please contact us prior to the audit so that we can arrange for this to take place at the visit. If your sites uses a "round robin" cylinder, where a single cylinder is transported to a number of sites or is stored off site, you need to make sure that the cylinder is available for testing at the audit.

## QUESTION AND ANSWERS SECTION

This section will provide answers to frequently asked questions that relate to different aspects of LAQM ranging from Local Site Operator (LSO) duties to advanced data analysis queries. If you have a question you would like to be answered in this section, please contact [aq-monitoring-scotland@ricardo.com](mailto:aq-monitoring-scotland@ricardo.com).

*Q: Why is it important to change the NOx filter? How often should they be changed?*

**A:** It is important for the NOx sample inlet filter to be changed regularly to ensure the analyser is able to measure concentrations that are truly representative of ambient conditions. With time, dust collected on the filter can absorb gases and reduce the accuracy of the measurements made by the analyser. Regular filter changes ensure that the amount of gas removed by the dust is kept to an absolute minimum. The NOx filter should be changed after every calibration visit – if a site is an auto calibration set up, routine visits to change the filter should be incorporated into the LSO's schedule. The frequency of these filter changes is dependent on the site location, for example the AURN requires 2-weekly changes for

roadside sites and monthly for urban background sites.

Likewise, it is also important to inspect the condition of the filter i.e. if the filter appears to be badly soiled or shows signs of water ingress there could be a potential leak and the LSO should inform the Engineer Support Unit (ESU).

*Q: How can you tell a pollution episode is occurring whilst at site?*

**A:** The trigger levels in the table indicate a pollution episode. If the analyser is showing concentrations in excess of these levels the analysers must not be calibrated and a visit to the site should be rearranged. Ideally calibrations should not be carried out during periods of known elevated concentrations (i.e. rush hours).

Table 1. Table of pollutants and their trigger levels for a pollution episode

Pollutant	Level
NO <sub>2</sub>	75 ppb
O <sub>3</sub>	70 ppb
PM <sub>10</sub>	100 µg/m <sup>3</sup>
SO <sub>2</sub>	90 ppb
CO	10 ppb

## STAY CONNECTED

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