

AQE 2015 to Focus on Ways to Improve Air Quality and Emissions Monitoring

The organisers of AQE 2015, the international Air Quality and Emissions show, have announced a comprehensive programme of events that will take place in Telford, UK, on 22nd and 23rd April. Created to provide an update on the latest regulations, technologies, methods and research in air quality and emissions monitoring, AQE 2015 will take place at a time when concern with air pollution and climate change has never been greater.



AQE workshops are CPD Certified



The Telford International Centre plays host to AQE 2015



Author/Contact Details:
Marcus Pattison
AQE organiser
 Oak Court Business Centre
 Sandridge Park, Porters Wood
 St. Albans, Hertfordshire
 AL3 6PH
 ENGLAND
 Tel: +44 (0) 1727 858840
 Email: info@aqeshow.com
 Web: www.aqeshow.com

AQE Organiser Marcus Pattison says: "At the last AQE show we introduced ambient air quality as a major theme for the event, and this dramatically increased the number of organisations and attendees that took time to participate. In addition, registrations are already running at higher levels than ever before, so we are looking forward to an exciting two days!" Visitors to AQE 2015 will be able to find new ways improve the quality and reliability of monitoring, whilst ensuring compliance with all relevant regulations and standards, but importantly, they will be able to find new ways to do so, whilst also lowering costs. "With a UK General Election almost immediately after AQE 2015, air quality is likely to be a hot political issue, so the event could not have been better timed. Just before Christmas, the UK Government issued a consultation that, if adopted, could result in a significant reduction in ambient air quality monitoring. This has caused furious debate in the sector, which bodes well for a lively Conference!"

AQE 2015 (www.AQEshow.com) is the eighth in a series of specialist air monitoring events and will take place at the International Centre in Telford, UK. In common with the previous events, AQE 2015 will also include over 50 free walk-in/walk-out workshops and an exhibition featuring hundreds of the world's leading organisations in air quality and emissions monitoring products and services. The Conference and Workshops at AQE 2015 have been approved for Continuing Professional Development (CPD), providing delegates with further reassurance that their visit will be worthwhile.

Visitors to AQE 2015 travel from all over the world and come from a wide variety of sectors including central government, local authorities, industrial process operators, test houses, consultants, researchers, academics, instrument manufacturers, the media and anyone with a professional interest in air quality.

Background

A Defra report in 2013 (updated 2015) entitled: 'Protecting and enhancing our urban and natural environment to improve public health and wellbeing' details the effects of air pollution in the UK: 'Air pollution, for example from road transport, harms our health and wellbeing. It is estimated to have an effect equivalent to 29,000 deaths each year and is expected to reduce the life expectancy of everyone in the UK by 6 months on average, at a cost of around £16 billion per year. Air pollution also damages biodiversity, reduces crop yields and contributes to climate change.'

With cross-party membership, the remit of the UK's Environmental Audit Committee is to consider the extent to which the policies and programmes of government departments and non-departmental public bodies contribute to environmental protection and sustainable development, and to audit their performance against sustainable development and environmental protection targets. In December 2014, the Committee published a report saying: 'air pollution continues to be an invisible killer... The UK Government has been found guilty of failing to meet EU air quality targets in our cities, some of which will not meet the required limits until 2030. However, meeting EU standards should be the minimum requirement. Regardless of EU rulings it is unacceptable that UK citizens could have their health seriously impaired over decades before this public health problem is brought under control.'

Clearly, air quality is a major public health issue, representing an enormous cost to the National Health Service because of the effects of air pollution on health issues such as heart attacks, strokes, asthma etc. However, the UK is not alone in suffering from poor air quality; the World Health Organisation has reported that 'in 2012 around 7 million people died - one in eight of total global deaths - as a result of air pollution exposure. This finding more than doubles previous estimates and confirms that air pollution is now the world's largest single environmental health risk.'

Conference, Wednesday 22nd April: 'Emissions monitoring challenges facing operators and manufacturers'



The first day's conference will commence with David Graham from E.ON Technologies explaining how stacks are defined under legislation that aggregates units together. He will also provide a regulatory update on the Industrial Emissions Directive and the Medium Combustion Plant Directive. Jonathan Clark from Syngenta will then outline the challenges facing operators with small stacks in relation to periodic monitoring and compliance with standards. Continuing this theme, Dan Jones from E.ON Technologies will address issues facing the operators of large stacks, particularly in relation to staff safety and sample representativeness. In the afternoon, Derek Myers from REC will provide an overview of the challenges facing test laboratories and others, when sampling dust from wet stacks, and finally, Rod Robinson from NPL will explain the measurement and calculation of stack flow rate for mass emissions reporting purposes.

Conference, Thursday 23rd April: Air Quality - Latest developments and tools



Ambient air quality issues are of course extremely localised, and Stephen Stratton from Ricardo AEA will provide a summary of a study on exposure to pollution at buggy height, adult height and air quality station height. Jacqueline Barr from IBI/Transport Scotland will then deliver a presentation on a Sensor Rotation Project in which a network of new monitoring technologies has been applied to traffic management and control systems. In the final presentation of the morning, David Green from Kings College London will report on a series of PM Speciation Studies looking at the makeup of particulate matter measured across the UK and how it varies. In the afternoon, Martine Van Poppel from VITO Belgium, will explain the results of the CARBOTRAF EU Project which examined ways in which Black Carbon and carbon dioxide levels can be reduced by the latest monitoring technologies and effective traffic management. In the final presentation, David Carslaw from King's College London will describe 'OpenAir' (open-source software) which is a free software tool for the analysis and visualisation of air quality data.

International Exhibition

With more than 90 stands featuring hundreds of the world's leading organisations in air quality monitoring, the AQE exhibition will provide a unique opportunity to see all of the latest developments in instrumentation and monitoring services. For example, in the emissions monitoring sector, DURAG will demonstrate the D-R 320 back-scatter optical stack monitor that can be installed on stacks up to 600 DegC between 0.7 - 20m in diameter. Importantly, as a first of its kind, the D-R 320 can provide a linearity calibration check directly related to the validated range. ABB will feature the new ACF5000 hot/wet FTIR extractive continuous emissions monitoring system, and AMS Analitica (Italy) will present the combination of a new portable sampler combined with a new portable Isokinetic Calculator. Pollution SRL will launch Polaris, a lightweight FID analyser, heated to 180°C, and designed for VOC monitoring, and SICK will showcase a total mercury monitoring solution in addition to 'the perfect solution for pre-abatement monitoring on difficult processes.' EiUK's RAS1800 emissions analyser has recently received MCERTS certification and this instrument will feature on the company's stand.

PCME's stand will feature here new technologies: Ultrasonic Flow Monitoring, a new controller for communications with PCME's dust, leak and flow measurement sensors, and a new digitally networked multi-compartment baghouse monitoring system.

For ambient monitoring, there will be a wide range of the latest technologies on show. For example, Air Monitors will demonstrate AQMesh pods – low cost, battery powered, wireless ambient monitors, and AQE will provide the first opportunity to see the new DUVAS (Differential Ultra Violet Absorption Spectrometer) portable battery powered multigas monitor which enables monitoring on the move with high time-resolution and near reference monitor accuracy.

Air Pollution Poster Competition

There will be a poster competition under the theme: 'Air Pollution is bad for our health – the impact of personal responsibilities and local action to deliver clean air.'

Environmental Protection UK (EPUK) and Environmental Technology Services are sponsoring the competition which will take place within the event's exhibition hall. Shortlisted authors will be given the opportunity to display their posters, make a short 5 minute presentation to the judges, and answer questions on their topic. They will also benefit from free attendance at the event and a complimentary invitation to the Gala dinner, where the winner will receive the EPUK 2015 Poster Award. All shortlisted entrants will also receive membership of EPUK and a copy of 'Essential Environment'. The closing date for poster submission is 7th April, and visitors to AQE 2015 will have the opportunity to view the posters during both days of the event.



The poster competition at AQE will be themed: 'Air Pollution is bad for our health – the impact of personal responsibilities and local action to deliver clean air.'



Workshops



Over 50 free walk-in workshops, mostly provided by exhibitors, will address a wide variety of air quality monitoring themes including ambient air, stack emissions, occupational safety, nuisance dust, fugitive emissions and boundary monitoring.

On the first day of AQE, the workshops will cover the measurement of particulates, nitrogen oxides, TOC, dioxins and many other toxic gases. These presentations will cover stack emissions as well as fugitive and fence-line monitoring. Intriguingly, Quantitech's workshop will pose the question 'VOCs why speciate?' and there will also be presentations on dust modeling and the employment of the 'Internet of Things' in environmental monitoring.

The second day's workshops will include an explanation of a wide variety of applications for FTIR (including rocket science), as well as a presentation on engine emissions monitoring and optical gas imaging for fugitive VOCs. Air Monitors will unveil the latest trial data on AQMesh pods and there will be presentations on metals and dust monitoring in addition to a wide variety of other parameters.

Demonstration Arena

A section of a 'life-size' chimney stack will be constructed in the demo area, fitted with a range of different CEMS (Continuous Emissions Monitoring Systems), providing visitors with an insight into the latest online monitoring systems.

Under a 'Monitoring on the Move' theme, the ambient air quality monitoring section of the arena will feature an exciting variety of monitoring applications highlighting the latest wireless, battery-powered monitoring technology. For example, a mannequin will be fitted with a range of ambient and personal monitors and an electric car will feature a new high-speed multiparameter monitoring technology that will be ideal for surveys requiring spatial and temporal data. For the first time, AQE will also provide live demonstrations of air quality monitoring at different heights; a remote control quadcopter and hot air balloons will carry monitors to different heights whilst feeding live data to iPads.

Source Testing Association celebrates 20 years at AQE 2015

The Source Testing Association (STA) will celebrate its 20th anniversary at AQE 2015. "It is highly appropriate that we should mark this occasion at the AQE Show," says STA Director Dave Curtis, who has been involved since its inception. "This event and its predecessors (known as MCERTS) share a common objective with the STA, which is to help improve the quality, safety and reliability of environmental monitoring. For this reason, we have been instrumental in creating and developing these events, so it is very pleasing to see the success that the MCERTS and AQE shows have achieved."

The STA is a non-profit making technical trade association with a corporate membership of over 200 organisations including process operators, regulators, equipment suppliers and test laboratories. Looking back, Dave says: "We created the STA to give the emissions monitoring sector a voice, at a time when regulations and standards were changing quickly, and I am delighted with the success that we have achieved. Process operators have become responsible for emissions monitoring and through the development of new methods and standards, coupled with training and certification, the STA has made a major contribution to the advancement of the science and practice of emissions monitoring, coupled with improved procedures and safety."

"In the early days, our work was focused on MCERTS, but this led to greater involvement in European and international standards, and it is pleasing to note that we are now routinely consulted in the development of all standards in this sector. However, we are not sitting on our laurels and look forward to further success over the next 20 years."



Dave Curtis, STA Director

Plan Ahead!

Marcus Pattison has reminded visitors to plan their visit carefully: "There is a great deal to see and do at AQE 2015, so I advise everyone to study the Conference and Workshop schedules carefully before they arrive, in order to ensure that they attend the most relevant presentations, whilst also allocating time to visit the exhibition and the demonstration arena."

The charge for attending the Conference is £55 +VAT per day or £100 for both days. However, entrance to the exhibition and workshops is free and pre-registration guarantees free lunch, free refreshments and free parking. **Online registration for AQE 2015 is now open at www.aqeshow.com.**