



In this issue

News from EFCA	1
Why EFCA needs EECCA	1
“Destabilising our diesel fleet to prevent air pollution”	4
News from EFCA Members	4
Clean Air Day	4
Determination of pollutants in air, water and soil by specific analytical techniques	6
Annual technical conference on "Atmospheric nitrogen compounds (NO _x , NH ₃ and N ₂ O): short-term challenges for France".	7
Calendar	8

News from EFCA

Why EFCA needs EECCA

by Andrzej Jagusiewicz, President of EFCA

The fall of the Soviet Union in 1991 gave birth to eleven independent States. They are Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan. Geographically they extend from Eastern Europe (EE), through Caucasus (C) and up to Central Asia (CA). The richest of them is Russia while the poorest Kyrgyzstan. They all belong to the United Nations Economic Commission for Europe (UN/ECE) and inspire to join its multi-lateral instruments aimed at fighting air pollution in the region. The latter are the Convention on Long-range Transboundary Air Pollution (the Air Convention) and its key protocols, namely the Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (Gothenburg Protocol-GP), the Protocol on Heavy Metals (HMs) and the Protocol on Persistent Organic Pollutants, (POPs).

On this way a great majority is only a Party to the Convention, while Uzbekistan, Tajikistan and Turkmenistan are still hesitating whether to join or not the mother-instrument. However, no one of EECCA countries is a Party to any of the amended version of the control protocols. Despite, Georgia and Ukraine signed in 2014 the Association Agreements (AA) with the EU and intend to harmonize gradually its national legislation with EU regulations, in the first instance, the emission standards of the EU [Directive 2010/75/EU on industrial emissions \(IED\)](#), which were already included into the Gothenburg Protocol during its

revision. Moreover, these countries are also committed to introduce the system of permits based on integrated prevention and pollution control (IPPC) using best available technology (BAT).

The most important principles/obligations of the Convention and its key protocols are the following:

- recognition of transboundary air pollution in the national legal framework
- obligation to stabilize and gradually reduce and prevent air pollution, including long-range transboundary pollution at least of the pollutants covered by the protocols
- legal requirements of setting programmes and actions on reducing emissions
- introduction of country-wide Emission Limit Values (ELVs) based on BAT and subsequently their inclusion into the permit for main stationary sources
- compliance of exhaust emissions from new mobile sources and fuel standards with relevant EURO standards
- compilation of emission inventories, establishment of related data-base and reporting
- introduction of health-driven air quality standards at least for the main pollutants.

The fundamental principles may be easily added into the legal system of the EECCA countries as well as the obligation of setting programmes aimed at decreasing pollution. However, introducing the source-regulation based on uniform throughout the country emission standards poses a lot of technological and economic problems. Permitting system at best following the IPPC approach will require in turn updating of permits for thousands of installations while their implementation a gradual penetration of BAT and adequate enforcement. Another challenge is revising the existing air quality standards and their full harmonization with international ones, in the first instance with those of the EU (CAFE Directive) and later on with the WHO guidelines.

In a few words the current legal framework in most of EECCA countries is obsolete and does not reflect

the most recent developments in air quality assessment and management. The existing so called “permissible emission limits” (PEL) are region or site-specific and are established by merging maximum allowable concentration (MAC) of pollutant and a simple dispersion model for the given stationary source of emission. PEL means then the level of emission attaining MAC. In short this is an old Soviet approach.

For example the Azerbaijani law allows to base ecological norms of the atmospheric air quality on “friendly extent” of harmful substances in the air. The country has regulated 88 substances, although its 24 hour-MAC for dust is 10 times higher than the EU value for PM₁₀, in case 500 mg/m³ vs 50 mg/m³. Uzbekistan has 485 air quality standards and 39 substances, those emissions to the air are strictly forbidden like narcotic dust. But the champion is Ukraine with as many as 1340 hygienic normatives, of which 95 relate to different types of dust, including shrimp shells. Regardless their values, so numerous air quality standards remain purely theoretical, because their compliance is not impossible.

A similar situation is in the transport sector of EECCA countries, where the modern exhaust emission standards, at least EURO 4 and then EURO 5 and EURO 6 as well as internationally recognized fuel standards, have not yet been introduced. Growing rapidly car fleet and old Soviet standards, dated from the past century still kept in force in several countries, are fully responsible for polluted cities. For example, MACs of dust, carbon monoxide or benzo (a) pyrene were exceeded recently in Bishkek, the capital of Kyrgyzstan by factor of 6, 12 and even 35 respectively.

Introducing IPPC permitting system requires the identification of the main polluting sectors and calculation of their share in the national totals of pollutants covered by the protocols. Shortly, the emission inventory must be complete and reliable. Only then the process of introducing the system can start by setting first priorities and timescales and then choosing the appropriate technology. It's worthy to mention that implementing BAT is costly

and that the relevant guidance documents developed by the Task Force on Technical and Economic Issues (TEFTEI) under the Air Convention provide the range of techniques depending on their efficiency and costs. Important is to apply first the recommended technique from the guide with the lowest cost and then upgrade it in time. The guidance documents for all pollutants covered by the Convention are available in Russian.

In general, the EECCA countries consider as barriers on the way to absorb such a system their obsolete industrial technologies, outdated monitoring methodologies and equipment, institutional barriers and insufficient coordination between authorities. Also the lack of adequate funding and financial security slows the progress. Regardless, they express a political willingness to join at least the UN/ECE instruments although in the distant future, even more distant than the length of the present flexible arrangements included in the protocols. The latter allow postponing the compliance with the emission standards up to 15 years, provided they ratify these instruments by 2020.

To speed up the process, both the UN/ECE and the EU have developed cooperative infrastructure and custom-oriented work plans as well as dedicated projects for the implementation of the Air Convention and its Protocols in EECCA countries.

Under the work-plan of the Air Convention, they all can directly participate in special action plans aimed at capacity-building to promote ratification and implementation of the protocols and benefit from consultancy services. More specifically they concern the update of the legal framework, modernization of monitoring equipment, compilation of emission inventories, including improved reporting and diffusion of information on BAT.

The EU is offering the Air Quality Governance Project with the European Neighborhood Partnership Instrument (ENPI), promoting both, the Air Convention's and the EU's acquis. However it excludes Russia and the Central Asia countries. The

Cost-benefit Analysis of scenarios of ratification of the Air Convention protocols, which contains the assessment of enhancement of national capacities for joining and meeting corresponding requirements, is the best example of such activities. So far Azerbaijan and Georgia have been assessed.

It's also worth to mention the Batumi Action for Cleaner Air (BACA) developed by the Eighth Environment for Europe Ministerial Conference held in 2016 in Georgia. BACA aims at voluntary commitments to establish national action programmes that reduce air pollution by controlling and abating emissions of pollutants covered by the protocols, including black carbon, BACA calls also for policies and programmes with measures that increase energy efficiency and promote the use of renewable energy and energy-saving measures. So far several EECCA countries are implementing selected BACA actions.

It's quite evident that broadening the ratification of the Convention and its protocols is seen by international communities as a primary objective. The more Parties ratify the protocols, the larger the scale of the market for BAT and cleaner technologies, and the lower their costs. It will also reduce the area of "pollution heaven" or in other words prevent the UN/ECE members competing with each other at the expense of air quality and our health.

Cleaner air would mean less premature mortality cases and less sickness-related absence from work. In turn, the cost-benefit analyses of air pollution abatement strategies consistently show that societal benefits are substantially higher than the costs for main polluting sectors. The types of benefits although most are qualitative, may be monetized. For example, the corresponding economic benefits of the proposed national emission ceilings of the EU air policy package amount to about EUR 40–140 billion, with the costs of pollution abatement to implement the package estimated at EUR 3-4 billion (per year in 2030). The monetized benefits will therefore be about 12 to 40 times greater than the costs incurred (EC, 2013).

If so, then investment in abatement measures could decrease investment in production capacity, but could also lead to more rational use of energy and raw materials and more efficient production processes, prerequisite of circular economy. At the end the competitiveness of the economy will increase (Holland, 2014). Not only for that reason, EFCA wishes early ratification of the protocols by all EECCA countries, but also because total benefits will then start to accrue earlier and therefore be available over a longer period of time (2020-2035). EFCA needs therefore EECCA countries as partner in the combat for cleaning the air in the European neighborhood and considers their contribution in reducing transboundary air pollution in the UN/ECE region as essential.

“Destabilising our diesel fleet to prevent air pollution”

by Elysia Carr; Government Europa Quarterly

Andrzej Jagusiewicz, president of the European Federation of Clean Air and Environmental Protection, explores how air pollution is affecting the lives of Europeans and how our air can be purified.

Toxic air pollution is the main cause of disease and premature deaths in the world today. The Lancet Commission on Pollution and Health puts the toll of air pollution at nine million a year, while the World Health Organization (WHO) attributes seven million premature deaths globally to the joint effects of both household and ambient air pollution.

In the EU-28, the European Environment Agency (EEA) estimates that the number of fatal cases due to particulate matter (PM) alone is around 400,000 annually and stands at the same level for many years. The overall picture in Europe is still worse if we add an estimated 75,000 premature deaths due to nitrogen dioxide. According to WHO, 80% of these deaths are attributed to non-communicable diseases (NCD).

To access the full article, please visit:
<https://www.governmenteuropa.eu/diesel-prevent-air-pollution/88702/> “

News from EFCA Members



New address: Rm 3, Caledonian Suite, 70 West Regent Street, GLASGOW, G2 2QZ

Clean Air Day

*by John Bynorth, Policy and Communications Officer;
Environmental Protection Scotland (EPS)*



Clean Air Day was held on Thursday June 21 with more than 500 events across the United Kingdom.

At least 1,000 organisations were engaged, according to estimates by the UK organisers Global Action Plan (GAP), which also found that Clean Air Day reached out to 950 million in this country via newspapers, websites, television and radio.

In Scotland, Environmental Protection Scotland (EPS) co-ordinated activities on behalf of the Scottish Government’s Cleaner Air For Scotland (CAFS) strategy, which aims to ensure the country has the best possible air quality.

The main cities of Edinburgh, Glasgow, Dundee, Aberdeen and Inverness along with other Scottish towns hosted events with the common aim of encouraging people to take at least one individual action to help cut air pollution.

They were told this could be achieved by leaving their petrol or diesel cars at home and walking, cycling, using public transport or considering buying an electric vehicle.

School children held lively debates and teaching sessions on air pollution and digital toolkits were

downloaded and shared by municipal and health authorities, both with their own staff and the public, which aimed to cut polluting behaviours. Growing concern over the number of motorists who 'idle' their vehicle engines by keeping them switched on while their cars are stationary played an increasingly vital role in the campaign.

Clean Air Day was launched in Edinburgh on June 21 by 99 school children from Sciennes Primary School. It was a suitable reward for their efforts to learn about air pollution since the inaugural National Clean Air Day event of 2017.

They led a noisy procession down the Scottish capital city's historic route of The Mound down to Princes Street accompanied by their teachers and parents. The young people waved placards and chanted songs calling for action to improve air quality.



The children were addressed by City of Edinburgh Council leader, Councillor Adam McVey and EPS Policy and Communications Officer John Bynorth at the start of a two-day Summer Summit with two major streets being sealed off to vehicle traffic for the duration of the festival. They were turned into a 'car free paradise' with flowers planted, mural wall painting, yoga sessions, dancing, cycling events and bicycle workshops.

City officials used air monitoring equipment to measure the impact on air quality impact of closing off the streets to all vehicles. Edinburgh has progressive plans to make the city more enjoyable for people who walk or cycle and will introduce a Low Emission Zone (LEZ) that will see the worst

polluting vehicles fined for entering certain areas of the city centre, from 2019.

The municipal authority also plans to follow the lead of Paris and encourage more 'car free days' in the wake of Clean Air Day.

Councillor Lesley Macinnes, the City Transport Convener, said it had been a 'wonderful opportunity for people to enjoy parts of Edinburgh in a different way to our current expectations and to see the benefits of a more people-orientated city.'

Glasgow will be the first Scottish city to introduce an LEZ, initially for buses, from December 31 2018.

The largest city in Scotland, it hosted a conference organised by the UK Health Alliance on Climate Change (UKHACC) on Clean Air Day.

Officials, politicians and policy-makers shared a platform at the City Council Chambers to debate how to tackle air pollution. Laurie Laybourn-Langton, Director of the UKHACC, said: "The health impacts of air pollution must sit at the top of the political agenda."

Outside the City Chambers, the main George Square was the focal point for the city's free Clean Air Day event with displays of electric cars, including a Tesla, e-bikes and a traditional black 'London taxi.' School children took part in cycling challenges on a section of street that was sealed off to vehicle traffic and various other activities drew in large crowds.

In Aberdeen, National Health Service (NHS) staff took part in a challenge between different staff using various modes of transport (an electric bike, electric car and a bus) to prove it was quicker to cycle across a 3.5 mile congested route in the city centre than to drive. Linda Smith, the city's public health lead came first across the line on an e-bike, said: "Our race showed just how quickly and easily people can get about using sustainable modes of transport – and especially by bike."

Like Glasgow, Edinburgh and Aberdeen, Dundee is to introduce its own LEZ by the end of 2022.

In Dundee, NHS staff were encouraged to take 'selfies' of their journeys of their journeys by

bicycle, on foot or using a bus or train to reach the workplace and they were rewarded for their efforts to adopt a cleaner, healthier lifestyle and to cut air pollution by not using cars.

The city's school children also produced a short video which has been viewed 650 times on Twitter aimed at encouraging drives to stop 'idling' their vehicles outside schools and elsewhere. The young people from Eastern Primary School told viewers of the video that they "want to be able to breath clean air in our schools."

<https://twitter.com/DundeeCouncil/status/1009792710688026624>

In the Scottish Highlands, EPS's John Bynorth addressed 200 children at Crown Primary School in Inverness after Heidi de Haas, of The Highland Council environmental initiative, Carbon Clever, drove an electric car into the playground for them to view.

On Clean Air Day, a study produced by GAP, collaborating in Scotland, with EPS and the Scottish Universities Environmental Research Centre was published which revealed details of how children are affected by pollution as their parents' take them to school or kindergarten.

It involved research in four UK cities, including Glasgow, with the young daughters of EPS's John Bynorth taking part in the Scottish case study. It found the children were being exposed to 30% more Particulate Matter pollution compared to adults when walking along busy roads, due to their closer proximity to vehicle exhaust fumes.

It also found pollution levels from petrol and diesel vehicle were 2.5 times lower for children walking along quiet roads to school or kindergarten.

In the case of the 50% of children being driven to school or kindergarten in the studies, they were exposed to double the pollution inside a vehicle compared to those walking on busy streets.

The study was reported by The Herald newspaper in Scotland.

www.heraldscotland.com/news/16303053.children-travelling-to-school-by-car-exposed-to-twice-as-much-pollution-as-pupils-on-foot-finds-clean-air-day-study/

Clean Air Day was best summed up by one public health official in Scotland, who said: "It has been a truly inspiring few days; a brilliant example of collective energy towards a shared better vision of the world."

The campaign has made an invaluable contribution to help change public attitudes to air pollution.

<http://www.ep-scotland.org.uk/>

Determination of pollutants in air, water and soil by specific analytical techniques –



Introduction to the European Standards

by Gordana Pehcec; CAPPA

Every two years, the Croatian Air Pollution Prevention Association (CAPPA) organizes professional workshops and seminars abroad. The purpose of these seminars is to introduce CAPPA members with European standards and new knowledge on specific techniques for determination of pollutants in water, air and soil. The seminars have been held regularly every even-numbered year since 2000. This year, the tenth CAPPA seminar "Determination of pollutants in air, water and soil by specific analytical techniques - introduction to the European standards" was organized in cooperation with the EFCA. It was held from 5 to 8 June 2018 in Warsaw and Krakow, Poland. There were 22 Croatian participants from seven institutions (Institute for Medical Research and Occupational Health, Ekoneg, Andrija Štampar School of Public Health-School of Medicine University of Zagreb, Faculty of Agriculture-University of Zagreb, Metroalfa, HEP Proizvodnja, Agroproteinka) including two national reference laboratories for air quality monitoring. The EFCA president Andrzej Jagusiewicz organized a visit of the key institutions responsible for air quality monitoring in Poland. The air quality monitoring

system in Poland is run by the Voivodeship Inspectorates of Environmental Protection and is coordinated by the Chief Inspectorate of Environmental Protection (CIEP).

On 5th of June, participants visited the Mazovian Voivodeship Inspectorate of Environmental Protection in Warsaw. After presentations held by Polish and Croatian experts and a discussion, the CAPPa members visited the laboratories and two stations for air quality monitoring (urban background station Kondratowicza - Targówek and background station in Kampinos National Park). On 6 June, a meeting with Marek Haliniak, PhD, Chief Inspector of Environmental Protection was organized. The hosts from the Chief Inspectorate prepared presentations regarding Poland's air quality monitoring system, while the activities of CAPPa and air quality monitoring system in Croatia were presented by the president of CAPPa Gordana Pehrec. It was a nice opportunity to exchange experiences, compare the organization of monitoring systems and discuss the issues they encounter in their work. In the afternoon, a visit by the Polish Chamber of Commerce for Sustainable Development (PIGE), an EFCA member, was organized as well. On 8 June, the participants visited Malopolski Voivodeship Inspectorate of Environmental Protection and National Reference Laboratory of CIEP in Krakow. The EFCA president was with CAPPa members along the all days of the visit.



This seminar has enabled Croatian and Polish experts and scientists to present their experience in the field of air quality and exchange opinions about

several important issues. New contacts established among the experts during the visit will be useful in future work on the prevention of the impact of air pollution on human health and the environment.

www.huzz.hr



Annual technical conference on "Atmospheric nitrogen compounds (NO_x, NH₃ and N₂O): short-term challenges for France".

by Jean-Guy Bartaire, Président Centre Interprofessionnel Technique d'Etudes de la Pollution Atmosphérique

CITEPA held its annual technical conference on 15 May 2018 in Paris. France published its National Plan to reduce air pollutant emissions (PREPA) in May 2017. CITEPA was mandated by the French Environment Ministry to lead a consortium to conduct the technical study to help the policy-makers prepare this plan. The plan is intended to significantly reduce emissions of pollutants as required by EU Directive 2016/2284 on reduction of national emissions of certain atmospheric pollutants and improve air quality and reduce the exceedances of air quality limit values for NO₂ and PM₁₀. To examine the issue of nitrogen compounds, CITEPA's 2018 conference brought together over 120 experts from a wide range of backgrounds (national, regional and local authorities, industry and their trade bodies, academia, air quality monitoring networks; NGOs, etc.). Speakers included high-level officials from the French Environment and Agriculture Ministries, DG Environment (European Commission), leading national research institutes (CNRS, ANSES, INERIS and IFPEN) and industry (EDF, Uniclimate). The conference sparked a stimulating debate, shedding light on the issue and providing an insight on policy in the pipeline, industry's perspective, and ways for moving forward.

www.citepa.org

Calendar

FAPPS (Finnish Air Pollution Prevention Society)

Air Protection Days,

21 - 22 August 2018; Lappeenranta, Finland

<https://isy.fi>

Annual Congress of the Italian Thermotechnical Association (ATI)

12 - 14 September 2018; Pisa, Italy

<https://www.axeacongress.com/ati2018>

Sessions of the ISO/TC 146, its sub-committees and work groups

24 - 28 September 2018, Sydney (Australia)

<https://www.standards.org.au/engagement-events/events/iso-tc-146>

4th annual meeting of the Task Force on Techno-Economic Issues (TFTEI)

15-17 October, 2018; Brussels

<http://tftei.citepa.org/en/4th-tftei-meeting>

EPUK Annual Conference 2018

Facing today's challenges and securing a healthy future environment

15th of November; Aston University Conference Centre, (Birmingham), UK

<http://www.environmental-protection.org.uk/events/epuk-events/annual-conference-2018/>

60th anniversary of the French Clean Air Association-APPA

29 - 30 November 2018; Lille, France

www.appa.asso.fr

24th Session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC COP24)

3 - 14 December 2018; Katowice, Poland

<http://cop24.gov.pl/>

Executive Body, Thirty-eighth session (UNECE)

10 – 14 December 2018; Geneva, Switzerland

<https://www.unece.org/index.php?id=45532>

8th International Symposium on Non-CO₂ Greenhouse Gases (NCGG)

12 - 14 June 2019; Amsterdam, Netherlands

The conference aims at bridging the gap between science and applications within the policy and decision making arenas.

www.ncgg.info

18th IUAPPA World Clean Air Congress

23 - 27 September 2019; Istanbul, Turkey

www.wcac2019.org

EFCA

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Newsletter

Editor	Thomas Reichert (on behalf of the executive committee)
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